

*Active Minds Changing Lives*



# 2013-14 Catalog

## **Notice to Readers**

Every effort has been made to provide accurate information. Policies and information may have changed since publication. Please consult with the appropriate University department or office for possible revisions. For department information, call the University at 360-650-3000.

This catalog is available in alternate formats by calling the ADA Coordinator at 360-650-3307 or 711 (Washington Relay).

Western Washington University (WWU), in compliance with applicable laws and in furtherance of its commitment to fostering an environment that welcomes and embraces diversity, does not discriminate on the basis of race, color, creed, national origin, sex, disability, age, veteran status, sexual orientation, gender identity or expression, marital status or genetic information in its programs or activities, including employment, admissions, and educational programs. Inquiries may be directed to the Vice Provost for Equal Opportunity & Employment Diversity, Title IX and ADA Coordinator, Equal Opportunity Office, Western Washington University, Old Main 345, MS 9021, 516 High Street, Bellingham, WA, 98225; 360.650.3307 (voice) or 711 (Washington Relay); eoo@wwu.edu.

Please see Appendix A - WWU Policies on Equal Opportunity/Nondiscrimination, Affirmative Action, Sexual Harassment and Reasonable Accommodation, and Appendix H - WWU Administrative Procedures A. Discrimination Complaint Procedure.

# President's Message



*I invite you to think of this catalog not as a list of classes but an invitation to discovery, the start of your personal adventure in learning. When I look through Western's catalog and see the sheer breadth and quality of offerings, I'm reminded in a special way of what an exciting place Western is to explore the life of the mind.*

*Although we encourage all Western graduates to be independent, life-long learners, this catalog represents your opportunity to immerse yourself in a broad, innovative and interactive community of knowledge. This is your gateway to engage with the animating ideas of the future and the past, from the latest discoveries shaping the world of tomorrow, to the foundations of culture, sciences, mathematics, history and art that defined the world of today. At Western you not only have the chance to learn from some of the country's finest faculty, but uncommon opportunities to collaborate and contribute your new ideas to challenge our understanding of ourselves and the world.*

*Beyond the classrooms, Western is recognized as a place where service learning, community engagement and love of the outdoors run deep. Part of what makes Western special is that our students strive to put their active minds to changing lives, whether out in the community, in the North Cascades or the other side of the world. I encourage you to consider this catalog as a map to discover those life-changing opportunities as well, and chart a course to becoming a leader for the positive difference you want to see in the world.*

*As you look through this catalog, and throughout your time at Western, I hope you will take advantage of these special opportunities to be adventurous and step outside your comfort zone. We learn and grow not only by building upon what we already know, but by keeping an open mind to explore new frontiers as well.*

A handwritten signature in cursive script, appearing to read "Bauer".

President

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# Western Washington University

## Active Minds Changing Lives

### *Vision*

Western Washington University will build a stronger Washington by being an international leader in active learning, critical thinking, and societal problem solving.

### *Mission*

Western Washington University serves the people of the State of Washington, the nation, and the world by bringing together individuals of diverse backgrounds and perspectives in an inclusive, student-centered university that develops the potential of learners and the well-being of communities.

## What is Western?

- Exceptional faculty and students engaged in leading edge intellectual inquiry.
- Liberal arts are the core strength of our academic programs.
- High quality academic programs are central to our mission.
- A place to build professional skills and abilities.
- Research, scholarship, and creative endeavor are fundamental to the Western experience.
- An environment that welcomes and embraces diversity
- Committed to open, passionate, and civil discourse, leading to transparent and well-informed decision-making.
- Responsible stewards of resources.
- Distinguished by a sense of place and community.
- A collaborative environment where faculty, staff, and students contribute to the mission of the University.
- Bringing the world to Washington and Washington to the world.

## Character

- **Engaging** - An immersive and dynamic approach in everything we do.
- **Inviting** - Inclusive and supportive.
- **Distinctive** - An academic environment that inspires innovative learning and commitment to a purposed life.
- **Adventurous** - Thriving on new challenges, fearless pursuit of dreams.
- **Collaborative** - Interactive learning, up close and personal, with faculty and staff.

## Positioning Statement

For ambitious, open-minded learners, Western is the premier undergraduate-centered university that fosters a dynamic collaborative environment at an intimate scale, where students fully engage, reveling in the freedom to develop their intellectual potential and achieve their personal goals.

## Reasons to believe

- Academic excellence
- Passion for boundless learning and exploration
- Personal engagement in one's education
- Collaboration between students and faculty
- Welcoming and supportive community
- A place to develop leaders and global citizens

# WESTERN WASHINGTON UNIVERSITY

- Spectacular location and natural environment

## **Who we are**

Western welcomes students at the front door of discovery. We invite you to connect, create and join in community with others who thrive on learning. Students and faculty are fully engaged here, working side-by-side to develop new ideas that challenge our understanding of ourselves and our world. We think of education as an adventure. So go ahead and immerse yourself and forge your own path to the future. You will make your mark here and go on to lead the positive change you want to see in the world.

# UNIVERSITY CALENDAR 2013-14 ACADEMIC YEAR\*

September 2013						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

October 2013						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

November 2013						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

December 2013						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

January 2014						
S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

February 2014						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

March 2014						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

April 2014						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

May 2014						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

June 2014						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

July 2014						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

August 2014						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

Holiday

First day of class

\*This calendar is subject to change. Dates appearing in admissions or registration or employee instructions take precedence over those in the University catalog.

## 2013-14 ACADEMIC YEAR\*

### Fall Quarter 2013

September 25 (Wednesday)  
8 a.m., classes begin\*\*

November 11 (Monday)  
Veterans Day holiday

November 28 to November 29  
(Wednesday, November 27 no classes, University open)

Thanksgiving recess

December 9-13  
Final examination week

December 14 (Saturday)  
Commencement

### Winter Quarter 2014

January 6 (Monday)  
Registration for new freshmen

January 7 (Tuesday), 8 a.m.  
Classes begin\*\*

January 20 (Monday)  
Martin Luther King, Jr., Day holiday

February 17 (Monday)  
Presidents Day holiday

March 17-21  
Final examination week

March 22 (Saturday)  
Commencement

### Spring Quarter 2014

March 31 (Monday)  
Registration for new freshmen

April 1 (Tuesday), 8 a.m.  
Classes begin\*\*

May 26 (Monday)  
Memorial Day holiday

June 9-13  
Final examination week

June 14 (Saturday)  
Commencement

### Summer Quarter 2014

May 7 to May 10  
Phase I Registration

May 13 to June 24  
Phase II Registration

June 24 to August 1  
Six-week session

June 24 to August 22  
Nine-week session

June 24 (Tuesday)  
Classes begin\*\*

July 4 (Monday)  
Independence Day holiday

August 23 (Saturday)  
Commencement

\*\*Some extension programs have varying start dates. Check with the site or program office to verify date classes begin.

# The University

Western Washington University is situated in Bellingham, a city of 75,750 overlooking Bellingham Bay and many of Puget Sound's 172 San Juan Islands. The University is 90 miles north of Seattle, 55 miles south of Vancouver, British Columbia, Canada, and an hour's drive from Mount Baker.

Since the first class of 88 students entered New Whatcom Normal School in 1899, the school has grown into the third largest institution of higher education in the state. The Normal School became Western Washington College of Education in 1937, Western Washington State College in 1961, and achieved university status in 1977.

## Academic Programs and Degrees

Western Washington University is organized into a Graduate School and seven undergraduate colleges: the College of Business and Economics, the College of Fine and Performing Arts, Fairhaven College of Interdisciplinary Studies, the College of Humanities and Social Sciences, Huxley College of the Environment, the College of Sciences and Technology, and Woodring College of Education.

To fulfill its academic objectives, Western's curriculum includes a program of broad general education; intensive studies designed to develop scholarly competence in the arts and sciences; professional programs for both public school personnel and a variety of other professionals; and graduate programs in professional education, the arts, the sciences, humanities, and business areas.

Western's undergraduate and graduate programs lead to the following degrees: Bachelor of Arts, Bachelor of Arts in Education, Bachelor of Fine Arts, Bachelor of Music, Bachelor of Science, Master of Arts, Master of Business Administration, Master of Education, Master of Music, Master in Teaching, Master of Science, and Master of Professional Accounting.

## Extension Programs

See the Extended Education section in this catalog. All of Western's extension programs, credits and degrees meet the same requirements as regular Western programs unless otherwise noted.

## Accreditation

The University is accredited by the Northwest Commission on Colleges and Universities to offer work at the bachelor's and master's degree level. The following colleges, departments and/or programs are also accredited:

- **Chemistry** — American Chemical Society, 1155 Sixteenth St. N.W., Washington, D.C. 20036;
- **College of Business and Economics** — AACSB International-The Association to Advance Collegiate Schools of Business, 777 South Harbour Boulevard, Suite 750, Tampa, FL 33602-5730;
- **Communication Sciences and Disorders** (graduate program in speech language pathology) — American Speech-Language-Hearing Association's Council on Academic Accreditation, 2200 Research Boulevard, Rockville, MD, 20850-3289; and National Council for the Accreditation of Teacher Education (NCATE), 2010 Massachusetts Avenue N.W., Suite 500, Washington, DC 20036-1023.
- **Community Health** — SOPHE/AAHE Baccalaureate Approval Committee (SABPAC), Society for Public Health Education, 10 G Street NE, Suite 605, Washington, DC, 20002.
- **Computer Science** — Computing Accreditation Commission of Accreditation Board for Engineering and Technology, Inc., [www.abet.org](http://www.abet.org);
- **Electronics Engineering Technology, Manufacturing Engineering Technology, and Plastics Engineering Technology**— Technology Accreditation Commission of Accreditation Board for Engineering & Technology, Inc., [www.abet.org](http://www.abet.org);
- **Industrial Design** — National Association of Schools of Arts and Design, 11250 Roger Bacon Dr., Suite 21, Reston, VA 20190;

- **Music** — National Association of Schools of Music (NASM), 11250 Roger Bacon Drive #21, Reston, VA 20190;
- **Psychology** (mental health and school counseling master's degree programs) — Council for Accreditation of Counseling and Related Educational Programs, 1001 North Fairfax Street, Suite 510, Alexandria, VA 22314; National Council for the Accreditation of Teacher Education (NCATE), 2010 Massachusetts Avenue N.W., Suite 500, Washington, DC 20036-1023; and the Washington State Professional Educator Standards Board, P.O. Box 47236, Olympia, WA 98504-7236;
- **Recreation** — Council on Accreditation of Parks, Recreation, Tourism and Related Professions, National Recreation & Park Association, 22377 Belmont Ridge Rd., Ashburn, VA 20148
- **Woodring College of Education** — National Council for the Accreditation of Teacher Education (NCATE), 2010 Massachusetts Avenue N.W., Suite 500, Washington, DC 20036-1023; and the Washington State Professional Educator Standards Board, P.O. Box 47236, Olympia, WA 98504-7236 (teacher education and educational administration programs); Council on Rehabilitation in Education — 1699 Woodfield Road, Suite 300, Schaumburg, IL 60173; (rehabilitation counseling program).

The University holds membership in the Council of Graduate Schools in the United States and the Western Association of Graduate Schools.

## Assessment

As part of an ongoing effort to assure the quality of the education received by its students, Western Washington University conducts a comprehensive assessment program designed to monitor and continually improve student learning. This assessment program conforms with guidelines established by the state's Higher Education Coordinating Board. From time to time students may be asked to participate in outcomes assessment by completing satisfaction surveys, sitting for achievement examinations, compiling portfolios of their academic work, or evaluating their own work and the quality of instruction in their classes. The purpose of all such assessment activities is to monitor and continually improve the quality of Western's academic program.

Students are strongly encouraged to participate in these assessment efforts. Participants can be assured that assessment results are always treated with the strictest professional confidentiality.

## Research

At Western, faculty research and the training of students in scientific and scholarly methods and techniques have received considerable impetus through foundation, industry and government grants. A variety of external sponsors has made awards to support faculty research, curricular development, and student research. Some of the sponsors are: the National Institutes of Health, National Endowment for the Arts, National Science Foundation, U.S. Department of Agriculture, National Oceanic and Atmospheric Administration, Department of Education, Department of Transportation, the Corporation for National and Community Service, Environmental Protection Agency, Canadian Embassy, National Endowment for the Humanities, U.S. Forest Service, American Chemical Society, National Park Service, U.S. Department of Defense, U.S. Small Business Administration, National Aeronautics and Space Administration, The Research Corporation and various local agencies and agencies of the state of Washington.

The Office of Research and Sponsored Programs (RSP) was established to encourage and coordinate faculty research and other creative, and scholarly activity throughout the University. The office is critical for faculty who seek external funds for development and research. RSP is responsible for the fiscal management of the awards, and managing the sponsor's compliance requirements. RSP also provides internal funding in support of scholarly endeavors.

## Equal Opportunity Office

Western Washington University, in compliance with state and federal laws and regulations, does not discriminate on the basis of race, color, creed, religion, national origin, sex (including sexual harassment),



## THE UNIVERSITY

age, disability, marital status, sexual orientation and gender expression or identity, veteran's status, or genetic information in any of its policies, procedures, or practices. This nondiscrimination policy covers admission and access to, and treatment and employment in, university programs and activities, including but not limited to academic admissions, financial aid, educational services, and employment. The Equal Opportunity Office (EOO) assists search committees in attracting broad and diverse applicant pools, in support of the University's Affirmative Action goals.

The EOO, both through formal and informal complaints, serves as a resource to faculty, staff and students in resolving discrimination complaints. In addition, the EOO provides training to the campus community on Sexual Harassment Prevention and a wide variety of other EO and diversity related topics. The Vice Provost for Equal Opportunity serves as the campus Title IX Coordinator as well as the ADA Coordinator. The EOO welcomes all faculty, staff and students and provides advice and assistance with civil rights protection issues. Inquiries regarding the University's equal opportunity policies and services may be directed to the Equal Opportunity Office at 360-650-3307.

### **Academic Facilities**

The main campus and its 91 buildings occupy 215 acres along Sehome Hill overlooking Bellingham Bay and downtown Bellingham. Other University properties, such as the marine laboratory at Shannon Point in Anacortes, support regional educational and conservancy programs.

In addition, off-campus courses and programs are held at various sites. The University has on-campus residence halls and student apartments for more than 4,000 students.

The beautiful natural setting of the main campus and its award-winning architecture make Western Washington University a stimulating place for work and study.

#### *The Libraries*

Western Libraries houses over 1.4 million volumes of books, periodicals, government documents, maps, sound recordings, videos, and more. All of these may be searched online. The collections include unique intellectual and cultural heritage materials covering the history of the University and our geographical area held in Heritage Resources in support of the University's curricula. The Libraries also offer access to online periodical databases and other resources, many with full text access, available from campus or from home 24 hours per day, 7 days per week. Our collection is supplemented by resources from the Orbis Cascade Alliance, a consortium of 37 academic libraries.

The Libraries and its Learning Commons serve as a vibrant living, learning space for students, offering them the opportunity to interact with information and with each other. We do this in our physical locations by offering study spaces, access to technology, and research assistance, and virtually through our website. The Libraries pride themselves on offering the same level of access to materials and services to distance learning students as to those pursuing coursework on campus.

The Libraries contribute to the academic success and lifelong learning of Western's students by offering credit instruction, instruction in academic courses, writing instruction for students and faculty and by answering research queries at the point of need.

#### *Academic Technology & User Services (ATUS)*

Upon a student's online activation of his or her Universal ID and Password, key resources become available, including the MyWestern portal, the WWU network and WWU wireless network, use of more than 20 general university computer labs and numerous departmental labs with scanners and printers, residence hall computer labs, and the Student Technology Center (STC).

General university computer labs are open 24 hours per day, 7 days per week during the academic year, and provide general use software for Windows and Macintosh users. In addition, academic departments provide computer and software resources which are specific to the needs of students in their disciplines.

The Student Technology Center offers classes in the use of software, multimedia tools, and website development, in addition to printing of specialized materials for academic coursework.

Laptop computers for use on the wireless network may be borrowed at Wilson Library, Viking Union and several other campus locations. Multimedia equipment is available for checkout at ATUS Classroom Services and the STC.

The ATUS Help Desk, Haggard Hall 123 provides computer and software support to all campus communities. The Help Desk staff can be called at 360-650-3333.

#### *Outdoor Sculpture Collection and Western Gallery*

The historic precedent of establishing public art on a university campus as early as 1957 and the prominence of the artists in Western's Outdoor Sculpture Collection make this University and its specific art works widely known beyond the Northwest. Considered one of 10 acclaimed university collections in the United States, Western's sculpture spans the last half of the 20th century and is integrated with the terrain and campus architecture. The collection includes large-scale works by international, national and regional artists such as Magdalena Abakanowicz, Alice Aycock, Anthony Caro, Nancy Holt, Donald Judd, Robert Morris, Bruce Nauman, Isamu Noguchi, Tom Otterness, Beverly Pepper, Richard Serra, and Mark di Suvero. Since 2006 new works by six artists have been added to the collection. Website information and a brochure are available to students and visitors who wish to learn about the 29 works. The collection is administered by a curator and an advisory board. Acquisitions are made through a thoughtful process ensuring a standard of high quality and cultural relevance while maintaining the integrity of a late 20th century and early 21st century sculpture collection of international interest.

The Western Gallery, in a wing of the Fine Arts Complex in the center of campus, has 4,500 square feet of exhibition space with sophisticated environmental controls. The gallery features temporary art exhibitions of a diverse character appropriate to our pluralistic society. As part of the educational programs of the gallery, weekly lectures during major exhibitions are scheduled involving a variety of scholars. The contemporary art exhibitions and forums offer students the opportunity to cross reference works of art with the discourse of various disciplines.

#### *Shannon Point Marine Center*

Located on an 87-acre campus in Anacortes, Washington, the Shannon Point Marine Center (SPMC) provides facilities and programs that support the study of marine science on the part of students and faculty from throughout the University. Winner of the 2002 Presidential Award for Excellence in Science, Math and Engineering Mentoring, SPMC provides to biology or environmental science undergraduate majors specializing in marine science a ready opportunity to take courses and engage in special programs supporting independent study and research. Master's of Science students who participate in the Marine and Estuarine Science Program, offered through the Department of Biology and Huxley College of the Environment, take courses and engage in thesis research at the Marine Center. Federally sponsored programs that involve both Western students and others from around the nation include the summer Research Experiences for Undergraduates, and the Multicultural Initiatives in Marine Science: Undergraduate Participation, both sponsored by the National Science Foundation.

Only an hour's drive from the main campus in Bellingham, SPMC's facilities are designed to provide the most up-to-date opportunities for study of marine science on the part of both undergraduates and graduate students. Included is a well-equipped academic vessel fleet that provides ready access to the rich marine environment in the waters surrounding SPMC and a sophisticated analytical instrumentation base that provides students distinctive opportunities for education in the principles of marine science and training in the application of modern field and laboratory investigative techniques.

The SPMC campus provides extensive marine habitat for field and laboratory study, with the Mosquito Pass Study Site on San Juan Island providing additional sites useful for comparative studies. A running seawater system brings the marine environment into the controlled conditions on the laboratory to facilitate study of marine plants and animals. There are housing and dining facilities for 24 people. The Shannon Point Marine Center of Western Washington University also provides a marine outlet for the SPMC Consortium that includes Skagit Valley College, Edmonds Community College and Everett Community College.

## Enrollment and Student Services

The Division of Enrollment and Student Services advances Western's commitment to *Active Minds Changing Lives* by engaging and challenging students in their pursuit of academic and personal excellence through outreach, support services, and co-curricular learning opportunities. The division's mission, goals, and priorities align closely with Western's mission and goals, as set forth in the WWU Strategic Action Plan. Working collaboratively, departments in the division play a key role in bringing together an increasingly diverse and talented student body that involves its members in active learning and reflection. Division departments also create opportunities for students to display leadership, social responsibility, and effective citizenship through co-curricular programs, and are strongly committed to facilitating students' development. Programs and services offered by the division include admissions, registration, residence hall life, academic and career development services, tutoring, financial aid, disability resources, dean of students/student assistance services, student activities, dining services, new student and parent programs, counseling, health and wellness services, recreation programs, student outreach services, bookstore, and athletics.

### Office of the Vice President for Enrollment and Student Services

Old Main 445, 360-650-3839

[www.wvu.edu/depts/vpsa](http://www.wvu.edu/depts/vpsa)

The Vice President's Office is the central administrative office for the Division of Enrollment and Student Services. The vice president and staff provide leadership to ensure that the ongoing needs of students at Western are addressed. This is accomplished by maintaining effective student-centered programs and services, working closely with academic departments to create an integrated and comprehensive student experience, and assessing students' needs and concerns. Students with general questions regarding university policies, procedures, and resources may contact the Vice President's Office for assistance.

### Your Right-to-Know: Disclosure of Consumer Information

Western Washington University is committed to providing full disclosure of all consumer information required by state and federal law to all students, their family members, and members of the campus community. A summary of required information, and where to access it, is as follows:

<b>Information</b>	<b>Where to Find It</b>
Accredited Departments and Programs	<a href="http://catalog.wvu.edu/content.php?catoid=6&amp;navoid=477">http://catalog.wvu.edu/content.php?catoid=6&amp;navoid=477</a>
Alumni Employment Rates	<a href="http://www.careers.wvu.edu/">www.careers.wvu.edu/</a>
Athlete Completion Rates	<a href="http://www.vikings.cstv.com/ot/academic-excellence.html">http://www.vikings.cstv.com/ot/academic-excellence.html</a>
Diversity at Western	<a href="http://www.wvu.edu/diversity/">www.wvu.edu/diversity/</a>
Financial Aid Information	<a href="http://www.finaid.wvu.edu/finaid/">www.finaid.wvu.edu/finaid/</a>
Graduation and Transfer Rates	<a href="http://west.wvu.edu/factbook/">http://west.wvu.edu/factbook/</a>
Measles Immunity Requirement	<a href="http://www.wvu.edu/chw/student_health/measles.shtml">http://www.wvu.edu/chw/student_health/measles.shtml</a>
Policy on Alcohol and Other Drugs	<a href="http://www.wvu.edu/policies/s_affairs.shtml">www.wvu.edu/policies/s_affairs.shtml</a>
Policy on Using Copyrighted Materials	<a href="http://west.wvu.edu/atus/helpdesk/FileSharing.shtml">http://west.wvu.edu/atus/helpdesk/FileSharing.shtml</a>
Privacy of Student Records	<a href="http://www.wvu.edu/policies/s_affairs.shtml">www.wvu.edu/policies/s_affairs.shtml</a>
Services for Students with Disabilities	<a href="http://www.wvu.edu/depts/drs">www.wvu.edu/depts/drs</a>
Student Rights and Responsibilities	<a href="http://www.wvu.edu/dos/conduct/the_code.shtml">http://www.wvu.edu/dos/conduct/the_code.shtml</a>
Transfer of Credit Policies	<a href="http://admissions.wvu.edu/transfer/t_credit_policies.html">http://admissions.wvu.edu/transfer/t_credit_policies.html</a>
Voter Registration Information	<a href="http://www.sos.wa.gov/elections/default.aspx">www.sos.wa.gov/elections/default.aspx</a>

## Emergency Response and Evacuation Procedures

Western recognizes its responsibility to provide timely information to the campus community during emergencies. In the event of a significant emergency or dangerous situation involving an immediate threat to the health or safety of students, staff or faculty, the university will use every communication tool at its disposal to share information with the campus community as quickly as possible. These include, but are not limited to:

- The Western Washington University home page ([www.wwu.edu](http://www.wwu.edu))
- The Emergency/Storm Hotline (360-650-6500)
- The WWU Emergency Communications web site ([emergency.wwu.edu](http://emergency.wwu.edu));
- The "Big Ole" steam whistle, located at the WWU Steam Plant; and/or
- The Western Alert emergency notification system.

Emergencies may be reported to University Police by dialing 3911 from a campus phone or 360-650-3911 from a non-campus phone or cell phone.

## "Western Alert" Emergency Notification System

The Western Alert emergency notification system gives Western the ability to share health and safety-related emergency information with members of the campus community quickly — by e-mail alerts and cell phone text messages. Students, faculty and staff must "opt in" to receive Western Alert text messages (e-mail alerts will be sent to your official university account automatically).

To "opt in" to receive Western Alert text messages, students, faculty, and staff should login to their MyWestern account online at [www.wwu.edu](http://www.wwu.edu) and click on "Web4U." Select "Personal Information," then "Cell Phone – View/Update." Enter your cell phone number, and finish by pressing the "Update" button. Text messaging will only be used to communicate with you in two circumstances: during an emergency and during occasional tests of the Western Alert system.

## Academic and Career Development Services

WWU's Academic and Career Development Services department is committed to helping students succeed in their academic pursuits at Western, and to achieve their personal and professional goals. Academic and Career Development Services is comprised of three units: the Academic Advising Center, the Career Services Center, and the Tutoring Center. The integrated services offered by these three units are focused on providing:

- Accurate and accessible advising to help students establish their academic goals and make effective plans to meet graduation requirements;
- Tutoring support to help students achieve their highest academic potential; and
- Career services to help students relate academic decisions to career goals, gain career-related experience, and transition successfully to graduate/professional education or career employment after completing their studies at Western.

### *Academic Advising Center*

*Old Main 380, 360-650-3850*

[www.wwu.edu/advising](http://www.wwu.edu/advising)

The Academic Advising Center focuses on supporting first year freshman and transfer students, students who are undecided about their academic goals, and students experiencing academic difficulties. The center helps students:

- Set academic goals and make academic plans
- Understand academic policies, General University Requirements (GUR), and graduation requirements
- Explore Western's curriculum
- Choose majors consistent with interests and abilities
- Select and schedule courses to make effective progress in meeting GUR's and gaining access to desired majors

## ENROLLMENT AND STUDENT SERVICES

- Address challenges impeding academic progress

### *Career Services Center*

*Old Main 280, 360-650-3240*

[www.wvu.edu/careers](http://www.wvu.edu/careers)

The Career Services Center provides a full range of services to assist students in all stages of the career development process — from self-assessment and initial academic and career planning to the job search process.

All Western students, regardless of degree or college, are encouraged to seek and use the Career Services Center early in their university experience.

### **Career Planning Services**

Career planning services focus on helping students select academic majors consistent with their interests, abilities, and personal goals. Individual counseling, career assessment, workshops, and resource materials are provided to assist students in:

- Assessing interests, personality characteristics, skills, and values as they relate to academic and career decision-making
- Exploring career and job market trends
- Relating career goals to educational options

### **Internship Services**

Internships provide an opportunity for students to gain valuable career-related experience by expanding their education into the work world. Internships allow students to put classroom theory into practice, test preliminary career choices, and gain valuable experience and contacts to enhance their employment opportunities after graduation.

The Career Services Center provides online listings of internship openings and advises students seeking internship opportunities. The center's fall internship fair, quarterly career fairs, and on-campus recruiting program provide opportunities for students to connect with employers recruiting for interns.

### **Job Search Services**

The Career Services Center offers a variety of services to assist students in identifying job opportunities and developing the skills necessary to conduct an effective job search, including:

- Individual job search counseling
- Workshops and online resources on résumé writing, job search correspondence, and interview techniques
- On-line job listings
- On-campus interviews
- Job market and salary information
- Mock interviews

### **Special Programs**

The Career Services Center offers three career fairs each year during the fall, winter, and spring quarters. Other special programs offered annually include: the Health Professional and Graduate School Information Fair, the Community Internship and Volunteer Fair, the Law School Information Fair, the International Opportunities Fair, the Majors Fair (co-sponsored with the Academic Advising Center), the Communication Sciences and Disorders Special and Rehabilitation Services Career Fair, the Huxley Environmental Career and Internship Fair, Educator Job Search Seminars, and the Etiquette Dinner.



## **Advising for Pre-Healthcare Professions**

Pre-healthcare Advisors are available as early as freshman year to support students interested in pursuing careers in medicine, dentistry, optometry, pharmacy, veterinary medicine and other healthcare professions with:

- Individualized advising
- Curriculum planning and registration assistance
- Shadowing and volunteering connections
- Student club advising
- Listserv correspondence
- Professional school application support
- Mock interview service

A fall Health Professional and Graduate School Fair provides students direct interaction with admission representatives of professional programs of study.

## **Advising for Students Considering Post-Graduate Study**

The Career Services Center provides advising for students planning to pursue graduate or professional studies. Students are assisted in weighing the value of further study, exploring options, and preparing graduate/professional school applications through individual counseling, workshops, resource materials and information fairs.

Students interested in learning more about graduate programs at Western are encouraged to contact the Graduate School, Old Main 530, at 360-650-3170, or visit its website at [www.wvu.edu/gradschool](http://www.wvu.edu/gradschool).

## **Career Services for Western Alumni**

The Career Services Center provides services to alumni seeking to change jobs or careers. Alumni can receive automatic e-mails of job openings and participate in on-campus interviewing and workshops. Alumni are eligible to receive individual counseling and use the reference file service. Additional information is available online at [www.wvu.edu/careers/alumni.shtml](http://www.wvu.edu/careers/alumni.shtml).

### *Tutoring Center*

*Learning Commons: Wilson Library 2 North, 360-650-3855*

[www.wvu.edu/depts/tutoring](http://www.wvu.edu/depts/tutoring)

The Tutoring Center helps WWU undergraduates achieve their highest academic potential by providing tutoring support for General University Requirement (GUR) courses, primarily in math and science. Programming includes drop-in tutoring and tutor-facilitated student groups. Detailed quarterly schedules are available on the Tutoring Center website.

The Center also helps students develop academic skills such as time management, test taking, note taking, and textbook comprehension. Workshops and individual sessions provide instruction and support to students seeking to improve their intellectual abilities and achieve academic goals.

## **Admissions**

*Old Main 200, 360-650-3440*

[admissions.wvu.edu](http://admissions.wvu.edu)

See the Undergraduate Admission section of this Catalog.

## **Associated Students Bookstore**

*501 High St. 360-650-3655*

[bookstore.wvu.edu](http://bookstore.wvu.edu)

Western's Associated Students Bookstore, the official Western Washington University bookstore, operates much like a student cooperative. It keeps prices lower than the industry average and partners with student

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groups to support campus programs and activities. The AS Bookstore provides value by offering discount prices on course materials; a wide selection of used textbooks; a textbook rental program; a price comparison tool; academically priced computer software; general books; school, office, and art supplies; a variety of “Western Gear” sportswear and more. Every quarter, the bookstore's website, <http://www.bookstore.wvu.edu>, publishes the list of textbooks required for each class. You can use **Bookit** to place your order online, **Rent** to rent your textbooks for 30, 60 or 90 days, or use **Verba** to compare the bookstore’s new, used and rental prices with other marketplace online options. At the beginning of each quarter, our **Charge-it** purchasing program allows students to charge in-store and online purchases to their student account.

***Shopping at your local independent Western AS Bookstore keeps dollars on campus supporting student activities at Western.***

### Athletics

*Carver Gym 100, 360-650-3109*

[www.vikings.com](http://www.vikings.com)

Intercollegiate athletics involves many students as participants and spectators. Men’s sports include basketball, soccer, cross country, golf, and indoor and outdoor track and field. Women’s sports include volleyball, soccer, cross country, basketball, indoor and outdoor track and field, golf, rowing, and softball. Western’s athletic program is a member of the National Collegiate Athletic Association Division II, and the Great Northwest Athletic Conference. For ticket information, call 650-BLUE (2583).

Students are encouraged to join The Blue Crew, Western’s student sports fan organization. There is no cost to join and free Blue Crew prizes are awarded to all Western students attending Viking athletic events. For further information, contact the Department of Athletics, Carver Gymnasium, at 360-650-3109, or visit Blue Crew on the Athletics Facebook page at [www.facebook.com/wvuathletics](http://www.facebook.com/wvuathletics) or at [www.viking.com](http://www.viking.com).

### Campus Community Coalition

*Old Main 585A, 360-650-6863*

[www.campuscommunitycoalition.com](http://www.campuscommunitycoalition.com)

The mission of the Campus Community Coalition is to promote working relationships and communication between the campus and community, and to enhance shared responsibility through collaborative education and problem solving. The Coalition’s philosophy is that shared problems require shared solutions. Coalition partners include neighborhood associations, the Bellingham Police Department, the Liquor Control Board, rental property owners, City of Bellingham officials, local bar owners, and students, faculty, and staff from Western Washington University, Whatcom Community College, Bellingham Technical College, Northwest Indian College, and Bellingham Public Schools. The Coalition has three active subgroups all with different purposes:

- The purpose of the **Neighborhood Network** is to address quality-of-life issues affecting students and local residents in the neighborhoods as they relate to alcohol and other drugs (AOD) and citizenship.
- The purpose of the **Hospitality Resource Alliance** is to promote sound business practices that influence customers to make healthy choices about their drinking and reduce problems related to AOD use in the community.
- The purpose of the **Campus Collaborative** is to create opportunities to share health promotion and educational initiatives at area campuses and reduce problems related to AOD use on campuses.

### Campus Recreation Services

*Wade King Student Recreation Center 138, 360-650-3766*

[www.wvu.edu/campusrec](http://www.wvu.edu/campusrec)

Campus Recreation Services provides each student, faculty, and staff member the opportunity to become actively involved in organized sports and recreation programs. Services provided by Campus Recreation

include intramural sports, noncredit fitness classes, open recreation, nutritionist, athletic trainer, and sport clubs.

### **Wade King Student Recreation Center**

Offering a wide variety of fitness and leisure activities, the Wade King Student Recreation Center (SRC) is designed to meet the recreation needs of the campus community. The SRC offers students, alumni, faculty, and staff a dynamic and inviting place to stay fit. All undergraduate and graduate students currently enrolled in six or more credits automatically become SRC members by paying the mandatory student recreation center fee. Paid memberships are available for faculty/staff, spouses/dependents/partners, and alumni and affiliates. The center features a climbing wall; a three-court gym; three weight and cardio areas; an indoor jogging track; a multi-activity court for basketball, floor hockey, tennis, volleyball, and soccer; a six-lane lap/leisure pool and 32-person whirlpool; two group exercise rooms; an equipment checkout counter; and the Rock's Edge Café.

### **Intramural Sports**

Intramural sports are competitive and recreational activities designed to encourage participation by all members of the campus community. Leagues and tournaments are offered in a wide variety of sports and are generally played on campus or at nearby facilities. Various local, regional and national organizations co-sponsor events and provide opportunities for promotional materials, special prizes, and invitational playoff berths. Intramural sports are structured for different skill levels and conducted in a safe, supervised environment.

### **Noncredit Fitness Classes**

Noncredit fitness classes provide participants an opportunity to develop, grow, and maintain a healthy lifestyle in a fun and friendly atmosphere. Instructional classes include aerobics, Zumba, Pilates, cardio kickboxing, yoga, hip-hop dance, step aerobics, water aerobics, and more. Classes are taught by qualified student and non-student instructors, and are designed with the individual differences of the student population in mind.

### **Sport Clubs**

WWU sport clubs are student organizations formed to promote non-varsity team sports and recreational activities. Sport clubs participate in intercollegiate and extramural competition at the local, regional, and national level while offering opportunities for instruction, skill development, and practice. Some of the sport club programs are co-recreational and allow members to be involved in scheduling and hosting events, arranging transportation and lodging, purchasing equipment and uniforms, and serving on the Sport Club Council. All WWU students, faculty, staff and alumni are eligible to become sport club members. Current WWU sport clubs include baseball, climbing, cycling, men's crew, equestrian, fencing, ice hockey, judo, lacrosse, rugby, sailing, swimming, tennis, ultimate disc, volleyball, water polo, and water skiing. Additional information is available online at [www.wvu.edu/campusrec/sportclubs.shtml](http://www.wvu.edu/campusrec/sportclubs.shtml).

### **Counseling, Health and Wellness Services**

[www.wvu.edu/chw](http://www.wvu.edu/chw)

Being a healthy college student means having the confidence and energy to live each day to its fullest. Health is achievable when people care about themselves, make decisions and practice skills to enhance their well-being, and respect one another as unique, worthwhile individuals.

The Counseling Center, Prevention and Wellness Services, and the Student Health Center are dedicated to the provision of quality physical and emotional care for Western students. Through utilization of services, students can learn ways to care about their own health and to improve and maintain their overall well-being so that personal, academic, and career goals may be achieved.

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### *Counseling Center*

*Old Main 540, 360-650-3164*

[www.wvu.edu/counseling/](http://www.wvu.edu/counseling/)

Personal problems can interfere with school and life. The Counseling Center provides professional counseling for a wide variety of concerns students may have while at Western. Students sometimes get depressed or lonely or anxious. Relationship problems may occur: couples break up, roommates argue, friends leave, parents divorce. Problems can develop with procrastination, low motivation, and/or lack of direction. Anxiety may interfere with academic success. Self-esteem can slip. Stress may erode performance. The Counseling Center's staff of professionally trained and experienced psychologists, counselors, and graduate trainees is here to help students work through these problems in a caring and confidential environment. All counseling services are voluntary, free, and confidential.

In addition to individual counseling, the Counseling Center also provides workshops each quarter aimed at meeting the special needs of college students, such as dealing with stress, math anxiety, and enhancing interpersonal skills. Counseling groups can provide an emotionally supportive environment for addressing issues of common concern. There also are many self-help books, CDs, and other materials available in the Counseling Center.

The Counseling Center provides brief and focused individual counseling. The staff is also knowledgeable about community referrals when campus resources cannot provide the longer-term or specialized services a student desires or needs. The center is open 8:30 a.m. - 4:30 p.m. Monday through Friday when classes are in session and provides same-day appointments for students whose concerns are urgent. An after-hours counselor may be accessed by calling 360-650-3164 and selecting Option 1.

### *Prevention and Wellness Services*

*Old Main 560, 360-650-2993*

[www.wvu.edu/chw/preventionandwellness/index.shtml](http://www.wvu.edu/chw/preventionandwellness/index.shtml)

Prevention and Wellness Services (PWS) offers Western students opportunities to get involved in improving their own health and the health of their community. PWS offers numerous professional and peer-led health promotion programs that can help students achieve optimal well-being and specific services to those who may face challenges to their well-being, such as alcohol and drug concerns or sexual assault.

Some of the services available to students include:

- Alcohol and drug-risk reduction consultation (ADCAS)
- Crime and sexual assault prevention services (CASAS) and violence prevention services
- Off-campus housing registry
- PWS peer health educator program (volunteer involvement in health promotion and risk reduction with the Western community)
- Quitting tobacco support
- Sexual health consultation services
- Stress reduction
- Wellness Outreach Center – resource center for health information

### **Alcohol and Drug Consultation and Assessment Services (ADCAS)**

*Old Main 560, 360-650-6865*

[www.wvu.edu/chw/preventionandwellness/adcas\\_about.shtml](http://www.wvu.edu/chw/preventionandwellness/adcas_about.shtml)

ADCAS is a confidential, professional service for Western Students who want assistance or information regarding their own use or someone else's use of alcohol, tobacco, or other drugs. ADCAS services are designed to assist students in making their own informed choices about alcohol, tobacco, and other drug use and related risks (personal, physical, social, academic and legal) so they can enjoy their college experience, maximize academic success, and minimize unwanted and unintended consequences. Specific individual services available to students include: one to one discussion of personal use issues, concerns about friends,

family members, partners, or roommates, and referral to appropriate campus and community support, counseling or treatment resources.

Individual ADCAS services are provided by professional staff specializing in alcohol and drug concerns. Skilled peer health educators and professional staff provide group-format services.

The use of alcohol and other drugs can have both immediate and long-term impact including increased health risks, increased risk for accidents, forced and/or regretted sex, poorer academic performance, regretted actions or social behavior, and possible legal sanctions. ADCAS services are designed to assist students in making accurately informed and thoughtful choices.

### **Crime and Sexual Assault Services (CASAS) & Violence Prevention Services**

*Old Main 585B, - Violence Prevention Coordinator 360-650-7982*

*Crime and Sexual Assault Support Services (CASAS) 360-650-3700*

[www.wvu.edu/chw/preventionandwellness/casas\\_about.shtml](http://www.wvu.edu/chw/preventionandwellness/casas_about.shtml)

CASAS is Western's caring and compassionate resource to assist all students who have, in childhood, adolescence, or adult life, experienced any of the following: relationship or dating violence, unwanted touching, attempted assault or rape, sexual assault, stalking, obscene phone calls or text messages, harassing e-mails or calls, indecent exposure, incest, molestation, hate crimes, or threatened or actual physical violence. CASAS staff works with survivors to access all available resources in an effort to ensure that students continue to be academically successful and have the support necessary to heal from the incident(s). Resources and support are also available to assist students whose partner, friend or family member has experienced an act of violence.

CASAS provides professional staff assistance to guide students through the details of identifying and accessing available campus and community services and resources, including:

- Medical/legal referral assistance
- Professional advocacy
- Academic support services
- Accompaniment to the hospital or police station
- Support group
- Information and referral

Anyone who has ever experienced any form of violence is strongly encouraged to utilize this service. To reach CASAS, call 360-650-3700, or send questions by e-mail to [casas@wvu.edu](mailto:casas@wvu.edu).

Western is fully dedicated to not only supporting survivors of many forms of violence, but to creating and sustaining a safe environment where violence does not occur. We recognize that discussing the root causes of violence is a key component in prevention. You will find resources of support for those who have been touched by violence, as well as resources for how to become part of the solution on our website.

### **Off-campus Housing Registry**

<http://www.wvu.edu/chw/preventionandwellness/offcampuswvu/housing.html>

The Off-campus Housing Listing Service allows students to find local housing. There are two services for off-campus housing: Prevention and Wellness Services has a website with an off-campus registry, and there is a bulletin board on the fifth floor of the Viking Union. Bulletin board listings may be made at the VU 5th floor Administration Desk in person between 8 a.m. and 5 p.m. Monday-Friday. The website has 24-hour login capacity for eligible users.

### **Sexual Health Consultation Services**

*Old Main 555, 360-650-2993*

[www.wvu.edu/chw/preventionandwellness/phe\\_female.shtml](http://www.wvu.edu/chw/preventionandwellness/phe_female.shtml)

[www.wvu.edu/chw/preventionandwellness/phe\\_sti.shtml](http://www.wvu.edu/chw/preventionandwellness/phe_sti.shtml)

Sexual Health Consultation Services provide one-on-one confidential information sessions to all students. These sessions cover sexually transmitted infections and prevention, and tips on how to talk with your



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partner, information on breast and testicular self-exams, birth control, and women's annual exams. These sessions are judgment free, tailored to fit your needs and free for WWU students.

Tips and Tea, a group session for women, offers the same information covered in the individual sessions in a fun group setting. Tips and Tea groups are offered twice a week. You can even schedule a Tips and Tea group session with friends.

To schedule an individual or group appointment, call 360-650-2993

### **Wellness Outreach Center**

*Viking Union 432, 360-650-4321*

[www.wvu.edu/chw/preventionandwellness/woc.shtml](http://www.wvu.edu/chw/preventionandwellness/woc.shtml)

The Wellness Outreach Center is a welcoming space dedicated to helping Western students improve their quality of life. The center specializes in helping students find the tools to optimize their health and wellbeing. The center houses a resource library with books, pamphlets and videos on all aspects of health including nutrition, body image, sexual health, alcohol and other drugs, mental health, and social justice issues. The center also offers free cold-care kits that include cold/flu risk reduction tips, condom packs, and a Seasonal Affective Disorder (SAD) light. Many students come to the center for a stress-break—a cup of hot tea and a comfortable couch.

The Wellness Outreach Center is open from 10:00 a.m. - 4:00 p.m., Monday through Friday during the academic year. It is located in the Viking Union Room 432

### **Student Health Center**

*Campus Services Building 2nd floor, 2001 Bill McDonald Parkway, 360-650-3400*

[www.wvu.edu/chw/student\\_health](http://www.wvu.edu/chw/student_health)

The Student Health Center provides students with a broad range of primary medical care services including, but not limited to: evaluation and treatment of illness, contraceptive services, immunizations, mental health, sports medicine, evaluation/referral for specialized conditions, men's and women's health care, monitoring and treatment of chronic illnesses, rapid lab tests (such as strep, influenza, mono and pregnancy tests), preventive medicine, sexually transmitted disease testing and treatment, travel consultation, and well-physical exams. The center is staffed by a team of physicians, nurse practitioners, and support staff.

The Student Health Center is open from 8:30 a.m. - 4:00 p.m. on Monday, Tuesday, Wednesday, and Friday and from 9:30 a.m. - 4:00 p.m. on Thursday during the academic year when classes are in session. Please see the website for Summer Quarter hours. When the Student Health Center is closed, a telephone consulting nurse is available at no cost and students are advised to seek clinical services from available after-hour medical facilities in the Bellingham area. **NOTE:** The University assumes no financial responsibility for care dispensed at other health care facilities. Students who seek treatment at off-campus health facilities must use private funds or their health insurance policy to cover resulting charges.

Please see the website [www.wvu.edu/chw/student\\_health/](http://www.wvu.edu/chw/student_health/) for medical insurance plan information. The medical director strongly recommends that all students have some form of health insurance to defray the substantial costs associated with serious accidents and illness.

### **Measles Immunity Requirement**

Western requires all students born after January 1, 1957 to provide medical documentation of immunity to rubeola measles to the Student Health Center before they will be allowed to register for classes or live in on-campus housing. Acceptable options for documentation include:

- Provide the dates for two individual doses of measles vaccine (usually referred to as "MMR vaccine"). The doses must have been given: (1) after January 1, 1968, (2) at least 30 days apart, and (3) on or after 12 months of age; or
- Provide a copy of evidence of measles immunity by demonstrating high positive antibody levels from a blood test (rubeola titer). A copy of the actual test results is required.

- Request a waiver from the immunity requirement for legitimate religious, personal, or medical reasons. To request a waiver, call 360-650-4839 or visit the Health Center website at [www.wvu.edu/chw/student\\_health/measles.shtml](http://www.wvu.edu/chw/student_health/measles.shtml). The form requires verification from your current health care provider for medical requests. Please note: in the event of a measles outbreak, students with an approved waiver may be excluded from attending classes and living on campus.

Questions about the measles (rubeola) immunity requirement may be directed to the Student Health Center.

### Reporting Communicable Diseases

Western is committed to the ongoing health and safety of our campus community. Individuals who know or have reason to believe that they are infected with a communicable disease have an ethical and legal obligation to conduct themselves in ways that minimize exposure in order to protect themselves and others and to inform the appropriate university administrator. Students should contact the Student Health Center or the Office of the Vice President for Enrollment and Student Services if they have been diagnosed with a communicable disease.

Communicable disease shall include, but not be limited to:

- Chickenpox (varicella)
- Hepatitis
- Influenza
- Measles
- Meningitis
- Mumps
- Norovirus (viral gastroenteritis)
- Pertussis
- Severe Acute Respiratory Syndrom (SARS)
- Tuberculosis

Any employee, student, prospective student, volunteer or visitor who knowingly arrives from a country outside the United States that has been issued a Travel Health Warning by the Centers of Disease Control *must* contact the Student Health Center's Medical Director for medical clearance *before* being allowed on campus to attend classes, work or other activities.

Individuals with communicable diseases shall be excluded from enrollment or employment or restricted in their access to university facilities, programs or services if a medically based judgment, in an individual case, establishes that exclusion or restriction is necessary to ensure the health and safety of the infected individual and/or other members of the university community.

For a complete review of this policy, visit the University's Policy and Procedures website

at <http://www.wvu.edu/policies/docs/1000%20University%20Administration/POL-U1000.12-Reporting-Communicable-Diseases.pdf>

### disAbility Resources for Students

Old Main 120, 360-650-3083 (voice), 360-255-7175 (VP)

[www.wvu.edu/depts/drs](http://www.wvu.edu/depts/drs)

The primary mission of the disAbility Resources for Students is to ensure equal access for students with disAbilities to all curricular and co-curricular opportunities offered by Western Washington University. disAbility Resources for students provides disability management counseling, enabling resources and referral information to enrolled students who possess a temporary or permanent disabling condition. disAbility Resources for Students (DRS) is committed to providing services and programs that foster student development at all levels: intellectual, emotional, physical, and social. Full participation in all aspects of university life is not only necessary to achieve this holistic development, but encouraged and supported by the DRS team.

- DRS provides reasonable accommodations in compliance with State and Federal laws.
- Students' records are treated with confidentiality.

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- Students must complete a Needs Assessment with DRS in order to receive services.

For service eligibility, a complete diagnostic description from a qualified professional is required. Specific academic accommodations and services are determined on an individual basis and are modified to meet the unique needs of students and their academic experience.

Services and programs offered through disAbility Resources for Students include, but are not limited to:

- disAbility management counseling
- Exam accommodations
- Interpreter services
- Alternative text
- Print enlargement
- Braille
- Academic advisement
- Academic adjustments in the classroom
- Mobility assistance
- Transcription services (Typewell, real-time captioning)
- Assistive listening devices
- Resource referral services

### **Evacuation Guide**

Western's Emergency Evacuation Guidelines for Persons with Disabilities is now available. Students are encouraged to obtain this publication and learn about preparing for an emergency on campus and establishing an individual written evacuation plan. The guide is available online at [www.acadweb.wvu.edu/hr/disability/EvacGuideForPWD.pdf](http://www.acadweb.wvu.edu/hr/disability/EvacGuideForPWD.pdf).

### **Financial Aid**

*Old Main 265, 360-650-3470*

[www.finaid.wvu.edu](http://www.finaid.wvu.edu)

See the Financial Aid section of this catalog.

### **New Student Services/Family Outreach**

*Old Main 300, 360-650-3846*

[nssfo.wvu.edu](http://nssfo.wvu.edu)

New Student Services/Family Outreach fosters student learning and development by supporting new students and family members in their transition to the academic, personal, and social experience of Western, as well as the greater Bellingham community. Programs and services provided include:

- Coordination of new student programs, services, and orientation, including Summerstart, Transitions, Fall Orientation, quarterly orientation, weekly e-mails, and ongoing programs. Orientation provides students an opportunity to receive academic advising and course registration assistance, become familiar with services, meet faculty, staff and current students, and complete placement tests.
- Coordination of family orientation and outreach, including summer orientation programs, Fall Family Open House, Back2Bellingham, and the Parent Connection.
- Online and in-person referral to campus and community resources.
- Leadership opportunities for current students (orientation student advisors and student coordinators).

### **Dean of Students Unit**

*Viking Union 547, 360-650-3450*

[www.wvu.edu/depts/dos/](http://www.wvu.edu/depts/dos/)

The Dean of Students Unit, led by the Dean of Students, supports Western Washington University's role and mission as follows:

**Mission Statement:** The Dean of Students Unit contributes to intentional student development by providing programs, services, and facilities that promote leadership, community engagement, citizenship, creative expression, student well-being, and the realization of personal and academic success.

The Dean of Students oversees the Western Leadership Advantage program, the Office of Student Life, Student Outreach Services, Ethnic Student Center, Viking Union Facilities, and Viking Union Student Activities.

### **Western's Leadership Advantage -- The L.E.A.D.S Program**

*Viking Union 506, 360-4187*

<http://www.wvu.edu/leadership>

Western's Leadership Advantage includes curricular (Karen W. Morse Institute for Leadership) and co-curricular (The L.E.A.D.S. Program) offices, integrated to provide leadership education for WVU students. The mission of the co-curricular program is to provide a campus environment where student leaders engage in action, discernment, and skills-building (L.E.A.D.S.). Self-reflection, assessment, and the development of leadership skills are central. The L.E.A.D.S. program, open to all students, provides campus-wide programming:

- co-curricular leadership development through open sessions, student government, residence life, and other campus units;
- leadership lectures, panels and events featuring alumni, parents and national/regional leaders; and an electronic leadership portfolio process including various skills assessment.

Additionally, the L.E.A.D.S. Program provides a select program to launch a distinguished group of incoming student leader-scholars, incorporating self-reflection, assessment, leadership learning, and team-building.

*Office of Student Life*

*Viking Union 506, 360-650-3706*

[www.wvu.edu/depts/dos/office/](http://www.wvu.edu/depts/dos/office/)

The Office of Student Life is concerned with the well-being, safety, and success of all Western students. The office is a natural starting place for students who have questions or concerns about their experience at Western. Staff members are available to provide general assistance with problem solving, referrals, and personal emergencies; to advise students on university policies and procedures, including academic grievance procedures; and to process dean's letters and letters of recommendation.

### **Hardship Withdrawals and Emergency Leaves of Absence**

The Office of Student Life assists students with hardship withdrawals and approves emergency leaves of absence for non-medical emergencies and personal crises. Additional information about hardship withdrawals and non-medical emergency leaves of absence can be found in the University Academic Policies section of this catalog.

### **Student Conduct**

The Student Conduct Officer is charged with administering Western's student conduct system, as set forth in the *Student Rights and Responsibilities Code*. As a condition of enrollment at Western, all students are expected to assume responsibility for their actions, and for maintaining an environment conducive to the academic success, safety, and well-being of all members of the university community. The student conduct process is designed to be a learning experience, and to promote growth and understanding of one's rights and responsibilities as a Western student.

Alleged violations of the Code may be reported to the Assistant Dean of Students at 360-650-3706 or [student.life@wvu.edu](mailto:student.life@wvu.edu). Copies of the Student Rights and Responsibilities Code can be found in Appendix C of this catalog, in the Dean of Students Office, or online at [www.wvu.edu/dos/conduct/the\\_code.shtml](http://www.wvu.edu/dos/conduct/the_code.shtml)

## ENROLLMENT AND STUDENT SERVICES

### **Student Outreach Services**

*Old Main 387, 360-650-3843*

[www.wvu.edu/depts/sos](http://www.wvu.edu/depts/sos)

Student Outreach Services supports the educational needs of all students, particularly first-generation, non-traditional and multicultural students. Student Outreach Services works with freshmen and transfer students to help ensure their successful transition to and graduation from Western, as well as with former students interested in returning to Western. Advisors provide students with personalized academic advising, assistance in developing educational plans, and positive intervention for those in academic risk. Student Outreach Services also serves as a resource to the campus community on issues of diversity and student success. The office is committed to the academic success, retention, and graduation of all students.

### **Viking Union Facilities**

*Viking Union 547, 360-650-3450*

[vu.wvu.edu](http://vu.wvu.edu)

As the community center of the campus, the Viking Union plays an integral role in students' out-of-class experience. The Union houses offices for the Associated Students' government, services and activities, and the Viking Union/Student Activities administrative office. Also located in the Viking Union are the Dean of Students and Student Life offices, meeting rooms, lounges, an outdoor equipment rental shop, a bicycle repair facility, several food service areas, a post office, an information center/sundry sales shop, two cash machines, an art gallery, KVIK-TV, Vendors' Row, KUGS-FM, a publicity center/print shop, and program areas. Viking Union food service locations include the Viking Union Market, the VU Café, the Underground Coffeehouse, and Vendor's Row.

### **Viking Union Student Activities**

*Viking Union 547, 360-650-3450*

[www.as.wvu.edu](http://www.as.wvu.edu)

Student activities at Western are designed to provide maximum opportunities for student engagement in a wide range of co-curricular experiences. Student activities are an integral and important part of the total range of educational experiences offered by the University. Students are encouraged to become involved in some aspect of the activity program since these activities provide leadership and social experiences that build on classroom learning.

Many student activities are initiated and administered by students through the Associated Students. Students who participate in the governing bodies of student-administered services, activities, and facilities not only determine the quality of co-curricular life, but also gain valuable leadership experience. Students may also participate in the University governance system as elected or appointed members of its various councils and committees.

### **Associated Students Personnel Office**

*Viking Union 505, 360-650-6113*

[Personnel.as.wvu.edu/employment](http://Personnel.as.wvu.edu/employment)

The AS employs over 200 students in a variety of diverse and exciting jobs in all the AS offices listed below. The Personnel Office coordinates the hiring of AS employees and open positions are listed on the website. The bulk of hiring takes place at the very beginning of each spring quarter for the following academic year.

### **Associated Students Productions**

*Viking Union 422*

[Asp.as.wvu.edu/](http://Asp.as.wvu.edu/)

From socializing to civil dialogue, Associated Students Productions (ASP) is a student-run programming office that brings major events to campus. There are six divisions of ASP: Pop Music, Films, Special Events,

Underground Coffee House, Viking Union Gallery, and Civil Controversy. The students that staff these offices work hard to bring top-quality events to campus, including local, regional and national music performances, films, comedians, authors, lecturers, art exhibits, and all kinds of other fun and intellectually stimulating engagements.

### **Associated Students Representation and Engagement Programs**

*Viking Union 520, 360-650-4267*

[Rep.as.wvu.edu/](http://Rep.as.wvu.edu/)

The AS Representation and Engagement Programs provide resources, services, and support necessary to ensure student representation in decisions that impact students at the university, local, state, and federal levels. The programs also promote effective citizenship and civic engagement through services, programs, and collaboration. For more information, contact the Information Coordinator at 360-650-3450.

### **Child Development Center**

*Fairhaven College Stack 11/12, 360-650-3021*

[cdc.as.wvu.edu/](http://cdc.as.wvu.edu/)

The Child Development Center is provided by the Associated Students of Western Washington University and serves the children of students, faculty and staff, ranging in ages from 2-5. The center is open from 7:30 a.m. - 5:30 p.m. on the days Western is in session, as well as during winter and spring breaks. Tuition is based on a sliding-scale fee for students.

### **Clubs and Organizations**

[www.as.wvu.edu/clubs/](http://www.as.wvu.edu/clubs/)

More than 200 clubs and organizations exist within the Associated Students, providing a wide range of involvement opportunities for all students. AS clubs come in all varieties, including service, environmental, recreational, academic/departmental, social issues, religious, cultural and ethnic, arts, music and dance, political, gaming, pre-professional and honorary, and special interest areas. Some clubs have long histories at Western; others are brand new. If a student doesn't find the right club, it is easy to start a new one. Students at Western enjoy being involved in clubs for the opportunities to meet new people, develop new skills, make positive changes in the world, and just have fun.

### **Environmental & Sustainability Programs (ESP)**

*Viking Union 424, 360-650-6129*

[as.wvu.edu/esp/](http://as.wvu.edu/esp/)

The purpose of the AS Environmental & Sustainability Programs (ESP) is to inform, educate, and provide resources regarding a variety of issues surrounding environmentalism and sustainable practices. The following offices comprise the ESP:

#### **Alternative Transportation**

*Viking Commons 25, 360-650-7960*

[as.wvu.edu/transportation/](http://as.wvu.edu/transportation/)

Western Student Transportation provides services funded by the Student Alternative Transportation Fee. These include a WTA Viking Xpress Bus Pass good for all WTA bus routes, a daily late night and Sunday daytime Student Shuttle, and assistance for any questions students may have concerning transportation at Western.

#### **Environmental Center**

*Viking Commons 424, 360-650-6129*

[as.wvu.edu/earth/](http://as.wvu.edu/earth/)

## ENROLLMENT AND STUDENT SERVICES

The Environmental Center presents lectures, seminars, music events and other programs to educate the campus community about environmental topics and to illustrate the interconnections between environmentalism and other social concerns. The Center maintains a library of current books, newspapers, brochures, videos and magazines and acts as a networking center for campus and community activists.

### **Outback Outdoor Experiential Learning Program**

*Viking Union 424, 360-650-2433*

[www.as.wvu.edu/outback/](http://www.as.wvu.edu/outback/)

The Outback, a joint program of the Associated Students and Fairhaven College, is a 5 acre farm and wetland restoration site. The purpose of the Outback OELP is to coordinate a wide range of opportunities for students to learn about, develop, and implement sustainable land use practices. These opportunities include personal and collaborative events and projects involving habitat restoration, organic gardening, green building, academic partnerships, independent study projects (ISPs), workshops, lectures and classes. The OELP also provides job-related skill building and community networking opportunities for students. These include serving on the Outback Governing Council, volunteering, and participating in work-study, AmeriCorps Students in Service, and salaried employment.

### **Ethnic Student Center**

*Viking Union 420, 360-650-7271*

[www.esc.as.wvu.edu/](http://www.esc.as.wvu.edu/)

The Ethnic Student Center serves as a cultural community hub for gathering and programming. Some of the cultural clubs include: the African-Caribbean Club, Black Student Union, Brown Pride, Chinese Student Association, Filipino American Student Association, Hui `O Hawai'i, Latino Student Union, MEChA (Movimiento Estudiantil de Aztlan), Mixed Identity Student Organization, Native American Student Union, Queer People of Color, South Asian Student Association, and the Vietnamese Student Association.

### **KUGS Radio**

*Viking Union 7th Floor, 360-650-KUGS (5847)*

[www.kugs.org](http://www.kugs.org)

Operated by the Associated Students, KUGS broadcasts in stereo at 89.3 on the FM dial, online at [www.kugs.org](http://www.kugs.org), and on Comcast Cable channel 980 on campus and throughout Western Washington. A general manager and student staff coordinate the efforts of 100 volunteers in all facets of station operation. With a complete range of music, news, and educational programming, KUGS offers students opportunities for participation as disc jockeys, newsreaders, producers, and managers.

### **KVIK Western Television Production Organization**

*Viking Union 423, 360-650-2343*

[kvik.as.wvu.edu](http://kvik.as.wvu.edu)

Operated by the Associated Students, KVIK Television creates and maintains broadcast programs to highlight the work of Western students. KVIK provides firsthand experience for those interested in the fields of television broadcasting and video production. KVIK productions represents students' original work and serves the campus community by providing interesting, informative, and entertaining media.

### **Lakewood Watersports Facility**

*2410 Lake Whatcom Blvd, 360-650-2900*

[www.vu.wvu.edu/lakewood/](http://www.vu.wvu.edu/lakewood/)

The Lakewood Watersports Facility – located approximately 7 miles from Western's campus at 2410 Lake Whatcom Blvd. – offers sailing, canoeing, kayaking, windsurfing, and rowing, as well as a sand volleyball

court, picnic tables and BBQ's, and hiking trails. For-credit PE classes and private instruction in sailing are available during the academic year and summer quarter. An informal lounge with a kitchenette and fireplace is also available.

### **Encouraging the Development of Groups through Experience: E.D.G.E.**

*2410 Lake Whatcom Blvd, 360-650-3731*

[www.theedge.as.wvu.edu/lakewood.php](http://www.theedge.as.wvu.edu/lakewood.php)

Located at the Lakewood Watersports Facility, the E.D.G.E. (Encouraging the Development of Groups through Experience) program offers teams, clubs, and groups of students, as well as faculty and staff groups, a facilitated opportunity to work on goal setting, leadership, effective communication, problem solving, trust-building, consensus-building, synergy, group roles, confidence and other valuable group and individual skills. The E.D.G.E. program offers a sequence of "Challenge by Choice" activities specifically designed to increase social and individual awareness and appreciation through safe physical and mental challenges, discussion and reflection.

### **Outdoor Center**

*Viking Union 150 (access available from North Garden Street adjacent to VU entrance), 360-650-3112*

[www.outdoor.as.wvu.edu/](http://www.outdoor.as.wvu.edu/)

The Outdoor Center provides a variety of outdoor-related opportunities and activities for all students, faculty, staff, and alumni. Emphasis is placed on developing and refining outdoor skills and responsible environmental practices, fostering diversity, enriching the academic experience, and promoting life-long learning. Resources include a knowledgeable staff, equipment rentals, a bike shop, excursions, educational resources, and instructional clinics.

### **Publicity Center**

*Viking Union 411*

[www.publicity.as.wvu.edu/](http://www.publicity.as.wvu.edu/)

The Publicity Center is a full-service advertising facility provided by the Associated Students for use by all students, as well as Associated Students programs and clubs. The center also publishes the *AS Review*.

### **Resource and Outreach Programs**

*Viking Union, 5th Floor*

[www.rop.as.wvu.edu/](http://www.rop.as.wvu.edu/)

Resource and Outreach Program's seven offices – including the Disability Outreach Center, Legal Information Center, Veteran's Outreach Center, Women's Center, Social Issues Resource Center, Sexual Awareness Center, and Lesbian Gay Bisexual Transgender Alliance – provide unbiased and confidential information and referrals to students in a safe, peer-to-peer environment. They also present a range of events, workshops, and activities each year that provide students with engaging and empowering opportunities to learn about themselves as well as our local and global community. Students can gain valuable work and life experiences through salaried student employment, work-study, and volunteer positions.

### **Recycle Center**

[www.recycle.as.wvu.edu/](http://www.recycle.as.wvu.edu/)

The mission of the Associated Students Recycle Center is to provide the opportunity for faculty, staff and students to recycle on campus, to educate the University community on the recycling process at Western, and to continually increase collection efforts in order to reduce Western's waste stream. The center also provides student employment opportunities and work experience, specifically in recycling and waste management.



## ENROLLMENT AND STUDENT SERVICES

### **Viqueen Lodge**

*Sinclair Island, 360-650-6131 (VU Reservations Office)*

[www.viqueen.as.wvu.edu/](http://www.viqueen.as.wvu.edu/)

Viqueen Lodge, located on 13 acres on Sinclair Island and provided by the Associated Students, offers overnight accommodations in a unique location for students, faculty, staff and alumni.

### **Registrar's Office**

*Old Main 230, 360-650-3430*

[www.wvu.edu/depts/registrar/](http://www.wvu.edu/depts/registrar/)

See the Registration section of this catalog for information.

### **University Residences**

*Edens Hall 100, 360-650-2950*

[housing.wvu.edu](http://housing.wvu.edu)

See the University Residences section of this catalog.

### **The Writing Center**

*Wilson Library (across from Zoe's), 360-650-3219*

<http://library.wvu.edu/writingcenter>

Monday-Thursday: 10:00 a.m. - 4:00 p.m.; Friday: 10:00 a.m. - 2:00 p.m.; Evenings: Open Sun - Thurs evenings; call for hours. Always open for online draft submissions at <http://library.wvu.edu/writingcenter>.

*"I know what it feels like to write — the feelings of isolation, fatigue, helplessness. I know what it feels like to be stuck, and I know what happens when I can talk about my writing to an interested person."*

*— A Writing-Centered Writer*

A free resource for students, the Writing Center provides academic support to writers of all disciplines and abilities. The Center welcomes writers engaged in the writing process in various stages – from brainstorming topics to polishing final drafts. Writers may conference with our qualified writing assistants first to clarify ideas (thesis and organization) and then to identify patterns of error (grammar and punctuation). Services include:

- Face-to-face response on course papers, essay exams, and applications/résumés
- Oral or written response to drafts submitted online
- Resources for writers, including books, handouts, and software
- Group conferences for writers with collaborative writing assignments
- Specialized assistance for writers with English as an additional language, learning differences, or accommodation requests

### **Department-related Activities**

Department-related activities provide opportunities for students to participate in a wide range of programs. Although faculty from related departments work closely with these activities, students do not need to be affiliated with the departments in order to participate. In many cases, students may receive academic credit for their involvement. The individual programs are outlined below.

### **Forensics Program**

*Communication Facility 295, 360-650-4879*

[www.wvu.edu/depts/communication/debate.shtml](http://www.wvu.edu/depts/communication/debate.shtml)

The forensics program provides opportunities for participation in local, regional, national, and international competitions, in National Parliamentary Debate Association-style debate. The program encourages achievement in tournament participation at all levels of competition, ranging from novice to championship. Western's program enjoys a strong national reputation including numerous top-20 rankings and consistent participation in the National Parliamentary Tournament of Excellence field of participants.

Annual activities also include sponsoring several local events, including campus presentations, hosting tournaments, and an annual advocacy on-campus conference (CASCAID). All students are welcome to participate regardless of major or experience level.

### **Music Activities**

*Performing Arts 273, 360-650-3130*

[www.wvu.edu/music/shtml/areas.shtml](http://www.wvu.edu/music/shtml/areas.shtml)

A wide range of vocal and instrumental groups on campus provides musical activity for students at acceptable levels of ability, and musical entertainment to satisfy listeners of all tastes. Some of the opportunities available to students include the Symphonic Band, Wind Symphony, University Choir, Concert Choir, Symphony Orchestra, Viking Pep Band, jazz ensembles, opera, Collegium Musicum, and numerous smaller ensembles. Membership in all of these ensembles is attained through either a performance audition or consent of the instructor. For more information see the Department of Music section of this catalog or contact the Department of Music, Performing Arts Center 273, at 360-650-3130.

### **Publications**

*Communications Facility 230, 360-650-6763*

[www.wvu.edu/depts/journalism/student%20publications.shtml](http://www.wvu.edu/depts/journalism/student%20publications.shtml)

Student publications include The Western Front, a twice-weekly newspaper; Klipsun, a twice-quarterly magazine; Jeopardy, the annual literary magazine; and The Planet, a quarterly environmental journalism magazine. Student contributions of time and talent are essential to these publications, and new students at all academic levels are encouraged to join their staffs each quarter. Students may receive credit for working on these publications through the Journalism and English Departments, as well as the Huxley College of the Environment.

### **Theatre and Dance**

*Performing Arts 395, 360-650-3876*

[www.wvu.edu/theatredance/](http://www.wvu.edu/theatredance/)

The Theatre and Dance Department offers students a rich variety of opportunities in faculty- and student-directed productions – both on stage and off – to write, act, dance, stage manage, design, teach, produce, and choreograph. The broad range of productions during the academic year includes musicals, dramas, and comedies from a variety of periods as well as faculty-and student-choreographed events, traditional dance concert events, and collaborations between the departments within the College of Fine and Performing Arts. The Theatre and Dance Department provides ongoing concentrated applied theatre and dance experiences for both the beginner and the advanced student. Previous theatre experience is not required for participation and all auditions are open. Previous dance experience is not a requirement for placement in a technique class. The Theatre and Dance Department participates regularly in the American Association of Theatre in Higher Education (ATHE), South Eastern Theatre Conference (SETC), The American College Dance Festival (ACDF), The Kennedy Center's American College Theatre Festival (KCACTF) and the United States Institute for Theatre Technology (USITT).

### **Western View (Video)**

*Communication Facility 295, 360-650-3870*

Western View offers students the opportunity to gain digital video production and editing experience. Informational and educational video instruction includes hands-on course work. Students produce videos shown on the campus and for special off-campus audiences. Credit is available through the Department of Communication.

# Financial Aid

Old Main 265, 360-650-3470

[www.finaid.wvu.edu](http://www.finaid.wvu.edu)

Western Washington University makes every effort to provide financial assistance to eligible applicants through grant, scholarship, work study, and loan programs. It is expected that students will meet part of their expenses through earnings from employment in the summer and academic year, and that parents (if applicable) will contribute in proportion to their financial ability.

**NOTE:** Students should be prepared to use *some of their own money* to pay for their initial expenses, even if they expect to receive financial aid.

## What is Financial Aid?

Financial aid is monetary assistance to help meet educational costs, including: tuition and fees, books and educational supplies, housing and food, transportation, personal, and dependent care expenses. The total amount of aid cannot exceed the budgeted cost of attendance used to determine financial aid eligibility. Eligibility for aid is determined by federal formulas from the U.S. Department of Education and the Washington Student Achievement Council. Applicants complete the Free Application for Federal Student Aid (FAFSA), which is evaluated to determine each student's relative financial need, and awards are made with careful adherence to federal, state and institutional guidelines. Western Washington University students who enroll in an approved program of study abroad may be considered for funding from many, but not all, aid programs.

Applicants who submit the FAFSA form to the federal processor by the priority deadline (see How to Apply for Financial Aid section) are considered for priority aid based on available funding.

**Grants** are gift aid and do not have to be repaid. Grants are awarded on the basis of calculated need and other eligibility criteria from the applicant's FAFSA. Most grants are restricted to undergraduate students, with greater eligibility for students who meet the priority deadline. Some partial tuition and fee waivers are available to students in master's degree programs.

**Scholarships** are generally awarded on merit-based criteria, but some may also use financial need as a factor. Western Washington University offers merit scholarships to entering freshmen, transfers and returning students in recognition of outstanding academic ability or talent.

Individual scholarships are available through University departments and colleges. Through the Multicultural Achievement Program Scholarship, the University recognizes outstanding students who demonstrate a commitment to multicultural issues and activities in school or the community. Additional information is available in the Scholarship Center, Old Main 275, 360-650-3471, or online at [www.finaid.wvu.edu/scholarships](http://www.finaid.wvu.edu/scholarships).

Enrollment in self-supported courses may not meet the eligibility criteria for all scholarship programs. Students enrolled in self-supported courses or applying to self-supported programs are urged to contact the Scholarship Center to determine whether they remain eligible for scholarships they have been awarded.

**Loans** for education feature competitive interest rates. The federal government subsidizes the interest on some loans. Payments may be deferred until after the student leaves school in some programs. Western Washington University participates in the Federal Perkins, Federal Direct Stafford, and PLUS loan programs. The Federal Perkins loan is targeted to undergraduate students with exceptional financial need. Alternative Student Loans through private lenders may be available to students who qualify.

**Student Employment and Work Study** offer work opportunities on campus and in the local community. Financial aid eligibility may or may not be a prerequisite for employment, depending upon the employment program. It is important to note the majority of student employment positions on Western's campus do not

require Work Study eligibility. The University places a strong emphasis on providing quality work experiences for its students. Additional information is available in the Student Employment Center, Old Main 285, 360-650-3158, or online at [www.finaid.wvu.edu/studentjobs](http://www.finaid.wvu.edu/studentjobs).

Work Study is awarded to undergraduate and graduate students with calculated financial need. Work Study jobs have a portion of the employee's earnings subsidized by federal, state, or institutional funds.

## How to Apply for Financial Aid

Students are required to file the Free Application for Federal Student Aid (FAFSA) each year to be considered for federal and state aid. The FAFSA can be filed online at [www.FAFSA.ed.gov](http://www.FAFSA.ed.gov).

To receive priority consideration for financial aid from all available programs, students must complete and submit their FAFSA to the federal processor by the priority filing deadline of February 15 preceding that academic year. Applications submitted after the priority deadline are considered for aid on a funds available basis.

Many aid applicants are required to provide additional FAFSA verification documentation so that their eligibility for aid can be determined. Examples of such documentation include but are not limited to verification worksheets, federal income tax transcripts, and W-2 forms. Students are urged to provide requested items as soon as possible to allow processing of their file to continue. The FAFSA and related application materials must be received in sufficient time to allow Financial Aid to finalize aid eligibility in accordance with federal requirements. Applicants who have totally withdrawn from all classes must also provide requested FAFSA verification documentation within 30 days after their last day of enrollment or they will forfeit their ability to receive aid for which they would have otherwise been eligible.

To prevent financial aid overawards that may require student repayment, aid applicants are required to immediately notify the Financial Aid Department in writing of any financial aid they are scheduled to receive or have already received from institutions or organizations other than Western Washington University. Such institutions and organizations may include, but are not limited to, other universities, colleges, educational loan lenders, and scholarship-granting organizations.

## General Eligibility Requirements for Financial Aid

Students may be considered for financial assistance if they:

- Are a citizen, a permanent resident of the United States, or an eligible non-citizen
- Submit a completed Free Application for Federal Student Aid
- Submit all required information and documentation
- Are admitted through the Admissions Office or Graduate School to a degree or certificate-granting program at Western Washington University
- Do not owe a repayment on a previous grant or are not in default on a previous educational loan received at any institution of higher education
- Have registered with the Selective Service, if required to do so
- Are enrolled for the minimum credit hours required:
  - 12 credit hours for full-time undergraduates; 8 credit hours for full-time master's degree candidates
  - 9 credit hours for three-quarter-time undergraduates; 6 credit hours for three-quarter-time master's degree candidates
  - 6 credit hours for half-time undergraduates; 4 credit hours for half-time master's degree candidates
  - Some students may be eligible for limited amounts of assistance if they are enrolled less than half-time
- Maintain satisfactory academic progress and have not already exhausted eligibility under the maximum attempted credit component of Western Washington University's Satisfactory Academic Progress Policy; please refer to Appendix J in the Appendices section of this catalog for additional information regarding satisfactory academic progress.

## FINANCIAL AID

- Loan Proration - Federal regulations require that undergraduate and post baccalaureate students who are attending less than a full academic year (e.g., one or two quarters) in their graduating year must have their federal direct student loans prorated according to the number of credits required for graduation. The annual loan eligibility is prorated based on the credits required for graduation in the student's program as determined by the Registrar's Office and reported on the Degree Evaluation.
- Financial aid eligibility is suspended for students convicted under federal or state law for possessing or selling illegal drugs during a period of enrollment for which Federal Title IV aid was received. If you have a conviction or convictions for these offenses, call 800-433-3243 or go to <http://www.ifap.ed.gov/drugworksheets/attachments/StudentAidEligibilityWorksheetEng1314.pdf> to see how this law applies to you.

### **Summer Financial Aid**

Applicants for summer financial aid must have a FAFSA for the preceding academic year on file, meet the same eligibility requirements as the academic year, and submit the Summer Financial Aid Application. The Summer Financial Aid Application is generally available in Mid-April via Web4U.

### **Self-Supported Courses**

Financial aid may be granted for self-supported courses. Contact the Financial Aid Department for eligibility requirements and aid procedures. Fee reductions and tuition waivers are not applicable to self-supported courses. Students enrolled in or applying to self-supported courses or programs should contact the Scholarship Center for specific scholarship eligibility requirements. Self-supported courses may not meet the eligibility requirements for all scholarships offered through the Scholarship Center.

### **Graduate Students**

Graduate students must enroll for at least 4 graduate-level credits each quarter to be eligible to borrow through the Federal Direct Unsubsidized Loan program.

### **Short-Term Cash-Flow Problems**

The Financial Aid Department can assist with short-term cash-flow problems through two short-term loan programs.

#### *Emergency Loan*

Currently enrolled students may borrow a maximum of \$350 for up to 30 days to solve minor cash-flow problems. A \$5 loan origination fee will be charged on each loan advance, and will be deducted at the time of the disbursement. Emergency loans must be paid in full within 30 days.

#### *Institutional Loan*

Currently enrolled, matriculated students may borrow up to \$600 for a maximum of 90 days. This loan requires a co-signer. Loan proceeds will be applied to the student's account balance before a refund will be issued. A \$10 loan origination fee will be deducted at the time of the disbursement. The institutional loan must be repaid within 90 days.

The Financial Aid Department reserves the right to refuse any of the short-term loan programs to students who do not show an ability to repay the loan, who have a poor repayment history, or where the applicant appears to be over-reliant on the emergency loan program in lieu of managing a budget.

### **Western Repayment Policy**

Overpayment occurs when a student has received more aid than the student is eligible to receive. The most common reason for overpayment is full or partial withdrawal from classes by the student after financial aid has disbursed. A student who fully or partially withdraws from classes after aid has been disbursed may be

required to repay all or a portion of that aid. The student will be held to Satisfactory Academic Progress requirements for the quarter.

Additional information on repayment requirements is available at the Financial Aid Department and the Student Business Office (OM 110).

Students must maintain the minimum number of credits associated with the enrollment status that they received aid for. Otherwise, aid could be delayed, reduced, or cancelled. On the second Friday of each quarter, the enrollment status is recorded and used as the final basis for determining eligibility for the following programs: Federal Pell Grant, Federal Teach Grant, State Need Grant, State Educational Opportunity Grant, Federal Supplemental Educational Opportunity Grant, Federal Work Study, State Work Study, Institutional Work Study. Federal Perkins Loan, Federal Direct Loan, Western Grant, tuition waiver, and some scholarship programs. This recording date is commonly referred to as the quarterly enrollment status "lock" date.

Students who receive aid from the above programs at the beginning of the quarter, based on a higher enrollment status than their enrollment status at the lock date, may have their aid reduced to correspond to their locked enrollment status. In such circumstances, a repayment would likely be owed. Students whose enrollment status increases by the lock date may be eligible for additional funding.

**Lock Dates:**

Fall Quarter	October 4, 2013
Winter Quarter	January 17, 2014
Spring Quarter	April 11, 2014
Summer Quarter	July 7, 2014

	Graduate	Undergraduate	Post-bac
Full time	8 or more	12 or more	12 or more
3/4 Time	6-7	9-11	9-11
1/2 Time	4-5	6-8	6-8
<1/2 Time	3 or less	5 or less	5 or less

**Withdrawing from Western**

If you are planning to withdraw from all of your classes, please provide official notification to the Registrar's Office of your intent to withdraw as soon as possible (even prior to totally withdrawing). Your notification will initiate steps necessary to bring closure to any outstanding financial aid issues for the quarter and help resolve any aid eligibility concerns for future quarters.

Withdrawing prior to the start of any given quarter will require repayment of all aid disbursed for that quarter. *Withdrawing after the lock date (second Friday of each quarter)*

If you withdraw from all classes after the lock date, you will be placed on financial aid suspension for future quarters. You may petition for financial aid reinstatement if unusual circumstances beyond your control prevented you from meeting satisfactory academic progress requirements. Reinstatement is not guaranteed. For more information, please refer to the satisfactory academic progress policy (Appendix J).

If you withdraw from all classes during the first 60% of any given quarter, your eligibility for federal, state, and institutional aid will be recalculated in accordance with federal, state, and institutional requirements. Your withdrawal date will be the earliest of:

- the date you began the withdrawal process
- the date related to the circumstance leading to your withdrawal
- your actual withdrawal date
- the date that you began an official leave of absence signed by a University representative

## FINANCIAL AID

This date is used to determine whether you owe a repayment of aid or if you are eligible for a post-withdrawal aid disbursement.

When students withdraw after rescinding a previous official notification of withdrawal, their original withdrawal date will be used. Applicants who withdraw from Western must also provide requested FAFSA verification documentation no later than 30 days after their last day of enrollment or forfeit their ability to receive any aid they otherwise may be eligible to receive.

### **Veterans Information**

Veterans and dependents of veterans enrolling at Western for the first time on the GI Bill must either apply for educational benefits with the Veterans Administration, or fill out a change of program form, if you have used your benefits at another educational institution. In order to receive your payments on time, this should be done well in advance of the academic quarter you wish to attend.

All students using Veterans Benefits at Western Washington University are encouraged to apply for financial aid through the Free Application for Federal Student Aid (FAFSA).

Western Washington University's academic programs of study are approved by the Washington Student Achievement Councils' State Approving Agency for students eligible to receive educational benefits under Title 38 and Title 10 USC.

Veterans/dependents should make certain the academic objective they plan to pursue is one authorized by the Veterans Administration.

Please review additional information for Veterans/dependents attending Western Washington University at our website <http://www.wvu.edu/registrar/veterans.shtml>

See the Financial Aid Bulletin online at: [www.finaid.wvu.edu/bulletin/](http://www.finaid.wvu.edu/bulletin/) for more detailed financial aid information.

# Registration

Registrar's Office, Old Main 230, 360-650-3432 [www.wvu.edu/depts/registrar/](http://www.wvu.edu/depts/registrar/)

Registration for each quarter is conducted in three phases using Web for Student, [www.wvu.edu/web4u](http://www.wvu.edu/web4u):

- Phase I — A period of two to three weeks in which continuing and returning students register by appointment.
- Phase II — A period before the beginning of the quarter when students can change their schedules. Except as noted otherwise, new freshmen register at orientation on the Monday before the quarter begins.
- Phase III — Registration beginning the first day of the quarter and ending at 5pm on the fifth day of the quarter. Students may register online during the first five (business) days of the quarter.

Complete registration instructions can be found on the Registrar's website at <http://www.wvu.edu/registrar/registration.shtml>. It is very important that students make certain after registering that they have done so properly by checking their schedules via Web4U. Students are prohibited from attending a class without being registered.

Orientation for Newly-admitted Students Fall Quarter

- Transitions, a special orientation and registration program for new fall quarter transfer students, is conducted during mid-summer preceding fall quarter. New transfer students unable to attend Transitions should plan to attend the orientation and advising program held the Monday before the beginning of fall quarter. Each transfer student who has accepted an offer of admission will be sent complete information about orientation and advising.
- Summerstart, a special orientation and registration program for new fall quarter freshmen, is conducted during mid-summer preceding fall quarter. Each freshman student who has accepted an offer of admission for fall quarter will be sent complete information about this program. New freshmen unable to attend Summerstart should plan to attend the orientation and advising program held the Monday before the beginning of fall quarter.

## Student Responsibility for Registration

Students are responsible for completing their own registration each quarter. While faculty may provide permission with an override to enroll in a restricted course, the student must complete the process via Web4U. Schedule changes initiated after the first five days of the quarter and independent study registrations must be submitted in person at the Registrar's Office. Registration is done in person at the Registrar's Office beginning the sixth day of the quarter. Students must have either a current override or written permission from the instructor to add a class.

It is important for students to make certain they are not registering for a course in which they already received credit, either at Western or elsewhere. Unless the course is marked in this catalog as repeatable, it cannot be taken more than once for credit.

## Registration Restrictions

For pedagogical reasons, some courses are restricted to certain levels of students, to students who are declared majors, or to those who have received special permission from the instructor. Such restrictions are listed in the online *Timetable of Classes* and *Classfinder*. The student is responsible for ensuring that he or she has satisfied all prerequisites before registering for a course. A student who has registered for a course without satisfying prerequisites may be required to withdraw from the course by the instructor.

## Registration Holds

A "hold" is placed on registration for students who have any outstanding obligations to the university. These obligations can include outstanding debts, failure to comply with immunization policies, failure to comply with



## REGISTRATION

certain admissions requirements or academic regulations, and violations of conduct codes or other University rules.

### **Waitlisting & Registration**

When a course reaches capacity during Phases I, II and III of registration, students may add themselves, via Web4U, to an automatically-generated waitlist. Before waitlisting is allowed, however, students must meet all enforced course prerequisites and other course restrictions listed in the University Catalog, the online *Timetable of Classes*, and *Classfinder*.

When a seat becomes available in a waitlisted class, an automated email message is sent to the official WWU email address of the first student on the waitlist, notifying the student of the available seat. Students can also sign up to have waitlist notifications and other official WWU communications sent via text message. Students who receive notification of seat availability are responsible for registering via Web4U before the notification expires. During Phases I and II, notifications are active for 24 hours from the time the notification is sent, and for 12 hours during Phase III. The notification expires if the student does not register within the time allowed, and a notification is then sent to the next student on the waitlist.

Further details on waitlisting policies and how to sign up for text message delivery can be found under Registration on the Registrar's Office website.

### **Late Registration**

The deadline to register or to add a class is 5pm on the fifth day of the quarter (see the Summer Session website for summer quarter registration deadlines).

Late registration (initial registration for the quarter) is permitted only with current permission from the instructor and the Registrar's Office. After the first five days of a quarter, initial registration is allowed only by: 1) obtaining an override or written permission from the course instructor, and 2) paying the late-registration fee. Students adding classes to an existing schedule beginning the sixth day of the quarter must obtain an override or written permission from the course instructor and the Registrar's Office, but will not be charged a late-add fee until the beginning of the third week. (See the Summer Session website for specific summer quarter date.)

### **Extension Registration**

Registration procedures for extension programs vary. Contact the appropriate program office for registration dates. See the *Extended Education* section in this catalog.

Students may register for Independent Learning courses (correspondence) at any time during the quarter; however, the academic quarter of record assigned to the course is determined by the Registrar's Office in consultation with Extended Education. Call Independent Learning at (360) 650-3650 for additional information. Enrollment in correspondence or online courses only does not qualify as continuing enrollment for newly admitted, first-quarter WWU students. Contact the Registrar's Office for information regarding student status.

### **Auditing Courses**

Auditors are persons who desire to attend courses without earning academic credit. Written permission from the instructor and approval from the Registrar's Office are required to register to audit a class.

Auditors may not actively participate in class and therefore certain courses may not be audited, including, but not limited to physical education activities, laboratory courses, studio courses, independent study courses, language courses, courses not taught in a group setting, and any other course the Registrar deems ineligible. Auditing a course cannot be used toward successful completion of academic credit.

Auditors are not allowed to register until the first day of the quarter, and the course must not have reached a maximum enrollment. Changes to or from audit cannot be made after the first five days of the quarter.

Students enrolled for 10 or more non-audited credits may audit a course without an additional charge. Students enrolled for less than 10 credits should refer to the Tuition and Fees section "Auditing a Class." Students approved to register for an audit are responsible for paying any course fees attached to the course. Students who choose to audit self-supporting classes through Extended Education are required to pay the full amount of tuition and fees.

### **Changes in Registration**

Policies concerning changes in registration, such as withdrawal from a course or from the University, are described in the section titled *University Academic Policies*.

### **Student Records Security**

Washington Administrative Code 516-26-070 prohibits access to or misuse of a student's educational records. Any person who inappropriately gains access to a student's records, or tampers with a student's registration, will be subject to disciplinary action.

### **Directory Information/Confidentiality**

The University publishes an annual student directory, showing your name and local phone number. You may elect to have this information omitted by completing a Request for Confidential Status of Directory Information form in the Registrar's Office, Old Main 230. If this option is chosen, NO information will be released about you, including attendance, degrees and awards earned. Please be aware, however, that information will not be released to the student or alumnus, as well, without proper identification.

# Tuition and Fees

Student Business Office, 360-650-2865  
www.wvu.edu/sbo

## Tuition and Fees

Tuition and fees include tuition, mandatory fees, course fees and additional fees. All fees are subject to change as the result of action by the state Legislature or the board of trustees. See the **Description of Tuition and Fees** section below for a detailed explanation of each fee.

**By registering for classes, a student incurs a legal obligation to pay tuition and fees to Western Washington University. This debt may be canceled only if the student officially withdraws from Western before the quarterly deadline published on the Registrar's website under Dates and Deadlines. You are responsible for paying your account regardless as to whether or not there is an account statement available.**

At Western the various expenses of an undergraduate who is a resident of the state of Washington are about \$7,556.25 each quarter.

### Estimated Quarterly Costs for 2013-14

Tuition and Fees	2,954.25*
Room and Board	3,218.00
Books and Supplies	360.00
Personal Expenses	602.00
Transportation	422.00
Total	\$7,556.25

\*Includes for students enrolled at least 6 or more credits: \$72 health services fee, \$39 nonacademic building fee, \$35 technology fee, \$95 recreation center fee, \$26.25 transportation fee, and renewable energy fee of \$0.70 per credit to a maximum of \$7 per term.

For students enrolled in less than 6 credits \$17.50 technology fee and renewable energy fee of \$0.70 per credit.

The table below shows the actual tuition rates by credit and student category. (Room and board and financial aid at Western are discussed in later sections of this catalog.)

### Current 2013-14 Schedule of Tuition and Required Fees

Classification	Per credit charge**	Number of credit								
			1-2**	3**	4**	5**	6**	7**	8**	9**
Resident <sup>1</sup> , Undergraduate	268	536	804	1072	1340	1608	1876	2144	2412	2680
Resident <sup>1</sup> , Graduate	292	584	876	1168	1460	1752	2044	2336	2628	2920
Nonresident <sup>1</sup> , Undergraduate	631	1262	1893	2524	3155	3786	4417	5048	5679	6310
Nonresident <sup>1</sup> , Graduate	624	1248	1872	2496	3120	3744	4368	4992	5616	6240
Resident MBA	335	670	1005	1340	1675	2010	2345	2680	3015	3350
Non-Resident MBA	670	1340	2010	2680	3350	4020	4690	5360	6030	6700

Classification	Amount per credit in excess of 18 credits**	Number of credits
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## TUITION AND FEES

		19**	20**	21**	22**
Resident, Undergraduate	250	2930	3180	3430	3680
Resident, Graduate	274	3194	3468	3742	4016
Nonresident, Undergraduate	613	6923	7536	8149	8762
Nonresident, Graduate	606	6846	7452	8058	8664
Resident MBA	317	3667	3984	4301	4618
Non-Resident MBA	652	7352	8004	8656	9308

### **\*\*Required fees not included:**

Health Service	\$ 72.00
Non-Academic Building Fee	\$ 39.00
Recreation Fee	\$ 95.00
Technology Fee	\$ 35.00
Renewable Energy Fee <sup>^</sup>	\$ 7.00
Transportation Fee	\$ 26.50
<b>Total</b>	<b>\$274.25</b>

<sup>^</sup>The Renewable Energy Fee will be assessed at \$0.70 per credit hour to a maximum of \$7 per quarter.

Enrollment Fee (first-time students only, non-refundable)	\$250.00
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*A tuition calculator can be assessed by selecting "Student Services", "Student Business Office", "Tuition & Fees", then "Tuition Calculator" from the main WWU Website to assist in projecting the amount of tuition and fees that will be due the University.*

*See the University Academic Policies section of this catalog for an explanation of full-time status and how that affects financial aid, athletic eligibility, and veterans' benefits.*

### **Your Student Account**

Tuition and fees are charged to a student's account at the time they register for classes. Students are responsible for reviewing their account and for paying the balance due. Western processes electronic statements and offers the option of paying student account charges online. Statement and account details are available at your Student Account Online.

If courses are added after the statement date or after financial aid has been disbursed, it is important to check your account online or with the Student Business Office to determine if additional payment is required. Student account information is confidential (see Appendix E in the Appendices section of this catalog). Release of account information may be authorized by completing a Release of Financial Information form online through the Student Business Office Important Forms.

Currently enrolled students will be sent an **electronic notification** to their assigned University e-mail account. A second notification can be sent to another email address by setting up an authorized payer. **No paper bills will be sent.** For more information see our webpage at [www.wvu.edu/sbo](http://www.wvu.edu/sbo) or the Student Business Office in Old Main room 110.

The University uses e-mail as its official form of communication; this is intended to meet the academic and administrative needs of the campus community.

The University expects that such communication will be received and read in a timely fashion.

**Students are responsible for monitoring their student e-mail account and maintaining current contact information with WWU, including current address and telephone information.**

## TUITION AND FEES

### Paying your Student Account

**E-Pay (online payment using credit card or bank information associated with your checking, savings or debit card).** Available 24 hours a day with immediate update to the student's account.

Payment may be made online with these credit cards, MasterCard, Discover or American Express. A 2.75 percent convenience fee will be charged for using a credit card. Payment also may be made online with an E-check (an electronic check). E-checks are not subject to convenience fees.

**To pay online**, students log in to your myWestern, then Web4U and follow the links to your Student Account Online. Parents or other third parties who will be paying an account must be set up as an Authorized User by the student in order to access student account information and make payments online. Instructions are available online at [www.wvu.edu/sbo](http://www.wvu.edu/sbo) or by visiting the Student Business Office in Old Main 110.

**Mail** checks to the Student Business Office, 516 High St., MS-9004, Bellingham, WA 98225. Do not use campus mail for payments.

Allow seven to ten business days for mail to reach Western. Payments are credited when received, not when mailed.

*Remember*

- Write your WWU ID number on the check and make it payable to WWU
- Canadian checks **must** be made payable in U.S. funds
- There is a \$25 charge for the first returned check and a \$50 charge for each subsequent returned check

**Pay in Person** at the Student Business Office, located in Old Main 110 (9 a.m. to 4:30 p.m. M-F). Payment may be made with cash, check or a debit card.

**Financial Aid** - All aid types will be applied to current quarter charges on the student's account. Only after University charges have been paid will a refund of excess aid be given to the student. **If a student incurs additional registration charges after financial aid has been applied to their account, the student is responsible for paying the additional charges by the tuition due date without notification.**

**Miscellaneous Charges** - Miscellaneous purchases charged to a student's account, such as bookstore purchases, health center charges or athletic health fees, **will not be paid** by financial aid unless a student signs a form authorizing the University to use financial aid to pay these miscellaneous charges. Fill out an Authorization for Miscellaneous Charges form online to allow financial aid to pay these charges.

### Due Dates, Late Fees and Interest

Tuition, fees, and housing charges are due on the first day of each term. After the 3rd Friday of each quarter and the third Friday of each month thereafter a late fee and a 1 percent interest charge will be assessed to all past due accounts.

Late Fees and Interest are assessed at the close of business on these Fridays:

**Fall** — October 11, November 15, December 20

**Winter** — January 24, February 21, March 21

**Spring** — April 18, May 16, June 20

**Summer** — July 18, August 15, September 19

Tuition due dates are posted on the Student Business Office website and the Registrar's Office website.

### Nonpayment Penalty

The University may withhold admission or registration privileges for students who fail to meet financial obligations to the University. The University may also withhold the issuing of official transcripts.

Unpaid balances mean your account will be placed in collection status with the Student Business Office. A service fee will be added to the amount you owe.

Accounts with past due unpaid balances may be forwarded to a contracted outside collection agency.

Additional collection costs of 33.3% - 50% will be assessed. If necessary, it may include costs of litigation and may result in a judgment and/or wage garnishment.

## Graduating or Exiting Students

Students who had a federal loan or federal Teach Grant disbursed while attending the University are required to complete exit counseling. The exit counseling requirement is designed to acquaint students with their rights and responsibilities regarding their student loans. Exit counseling should be completed before graduation, before withdrawing from Western, or when a student's credit load drops to less than half time. Exit counseling is a federally mandated requirement.

### Course Withdrawal

Students who drop courses may be entitled to a credit for a portion of the tuition and fees for a given quarter depending on the time of the quarter the transaction is completed.

- Courses dropped prior to the sixth day of the quarter may be entitled to a full tuition credit
- Courses dropped beginning on the sixth day of the quarter and within the first 30 calendar days may be entitled to one-half tuition credit
- Courses dropped after the 30th day will not receive a tuition credit

10-18 credits are considered flat rate tuition, refer to the Tuition and Fee Schedule on our webpage at [www.wvu.edu/sbo](http://www.wvu.edu/sbo). See also ***Withdrawal from a Course*** in the University Academic Policies section.

### Official School Withdrawal from the University

To officially withdraw from Western for the quarter, a student must contact the Registrar's Office and make a written request to withdraw. To enroll in courses after an official school withdrawal a student will need to re-apply to Western and be re-admitted before registering for any courses.

Students who officially withdraw from Western ***prior to the sixth day*** of the quarter may receive full credit of tuition and fees. See the sections under University Academic Policies for information on withdrawing from the University. The \$250 enrollment fee is nonrefundable.

Students who officially withdraw ***beginning on the sixth day*** of the quarter and within the first 30 calendar days may be entitled to one-half tuition credit. After the fifth day of instruction, the health services, building, technology, recreation, transportation and renewable energy and course and audit fees are nonrefundable.

Students who withdraw after the 30th calendar day of the term will receive no credit.

The deadlines for each quarter are published on the Registrar's website.

Fall, Winter, and Spring quarters only (refer to the Summer Session website for summer quarter withdrawal policy).

A statutory pro rata return of financial aid is required for students who received Title IV federal financial aid.

#### ***Also refer to the following resources:***

- Financial Aid Bulletin:  
'*Withdrawing*' section  
<http://www.finaid.wvu.edu/bulletin/>
- Federal Aid Repayment:  
'*Leaving Early*' section  
<http://studentaid.ed.gov/PORTALSWebApp/students/english/leaveearly.jsp?tab=attending>
- State Aid Repayment:  
'*SNG Repayment*' Policy search  
<http://www/hecb.wa.gov/index.asp>

## Refunding

Payments made to your student account, including financial aid disbursements (Federal Direct Stafford Loans, Federal Perkins Loans, scholarships, grants and waivers) and other support are applied to tuition and fees, University housing, and miscellaneous charges (if the Miscellaneous Charges form has been completed). If financial aid does not pay everything the student owes, the student is responsible for paying the balance by the tuition due date. If the payments to the account results in a ***credit balance*** the excess

## TUITION AND FEES

funds will be disbursed by **ACH Direct Deposit** into the student's personal checking or savings account. For direct deposit refund enrollment information see our website at [www.wvu.edu/sbo](http://www.wvu.edu/sbo)

### Description of Tuition and Fees

Tuition rates and service and activities fees are set by the board of trustees within the parameters of the state Legislature. Tuition consists of the operations fee, the capital building fee, and the services and activities fee. In addition, 4.0% of the operating fee, 3.5% of the capital building fee, and 3.5% of the services and activities fee collected is allocated to fund student financial aid.

The operations fee, with the state's general fund appropriation, is used to support the University's primary mission, the education of its students. This money funds instruction, library, student services, administrative and maintenance functions.

The capital building fee is used for the construction of academic facilities. It is not used for both housing and dining buildings or to support the University's operating budget.

The service and activities fee is used to amortize, in part, residence halls, dining halls and student activities facilities; to provide the Associated Students administration; and to support student activities such as theatre, forensics, musical activities, intramural and intercollegiate activities, et cetera.

### Other Mandatory Fees

#### **Enrollment Fee**

A one-time **\$250** enrollment fee is charged to all newly matriculated students, not including extension or graduate students, upon registration for their first quarter of attendance. This fee is nonrefundable.

#### **Green Energy Fee**

This fee is assessed to all students at \$.70 per credit hour to a maximum of **\$7.00 per quarter**. The sole purpose of this fee is to fund the purchase of renewable energy. The renewable energy purchased from this fee will be used to reduce or eliminate the University's use of energy generated by traditional nonrenewable resources.

*The following fees are assessed each quarter to all students registered for 6 or more credits on the Bellingham campus and are nonrefundable after the fifth day of the quarter.*

#### **Health Service Fee**

##### **\$72 per quarter**

The Health Service fee is used to establish a standard of health care for Bellingham's campus and as a contingency for emergency services. For more information contact the Student Health Center at 360-650-3400.

#### **Student Recreation Fee**

##### **\$95 per quarter**

The student recreation fee is used for the construction, operation, and maintenance of the Wade King Student Recreation Center. For more information, visit [www.acadweb.wvu.edu/recreate/](http://www.acadweb.wvu.edu/recreate/).

#### **Non-Academic Building Fee**

##### **\$39 per quarter**

This fee is used to fund the improvement and development of the Viking Union Complex on the Bellingham campus. For more information, visit [www.as.wvu.edu](http://www.as.wvu.edu).

#### **Technology Fee**

##### **\$35 per quarter for students enrolled in 6 or more credits, \$12.50 enrolled in 1-5 credits per quarter**

This fee is used to upgrade and expand the University's technology equipment, facilities, and software on the main WWU campus. For more information, visit [www.wvu.edu/stf/](http://www.wvu.edu/stf/).

**Alternative Transportation Fee****\$26.25 per quarter**

This fee is used to provide transportation resources, including WTA bus passes and daily late night student shuttle service. For more information, visit <http://www.wvu.edu/transportation> or contact the Sustainable Transportation Office by phone at (360) 650-7960 or email [transportation@wvu.edu](mailto:transportation@wvu.edu)

**Miscellaneous Fees****Parking Permits**

For parking and traffic regulations, see Appendix I. Quarterly Rates. All parking rates are subject to change.

**Rates do not include sales tax.** [www.ps.wvu.edu](http://www.ps.wvu.edu).

**Student Health Center**

An optional medical insurance plan is available to eligible students. Contact the Student Health Center for details.

**Special Examination Charges**

Course challenge, \$100 per credit.

**Intern Substitute Teacher Certification**

\$88 teacher certificate application fee.

**Residency Teacher Certification**

\$118 teacher certificate application fee.

*Residency Principal Certification*

\$118 administrator certificate application fee.

*Residency Educational Staff Associate Certification*

\$118 educational staff associate certificate application fee.

*Residency Principal Certificate Renewal*

\$93 administrator certificate renewal application fee.

*Residency Educational Staff Associate Certificate Renewal*

\$93 educational staff associate certificate renewal application fee.

*Professional Administrator Certification*

\$108 principal or program administrator certificate application fee.

*Professional Educational Staff Associate Certification*

\$108 educational staff associate certificate application fee.

*Initial Superintendent Certification*

\$118 administrator certificate application fee.

*Additional Teaching Endorsement*

\$98 additional endorsement application fee.

Certification fees include Washington State and WVU processing fees.

*Official Transcripts***\$10**

Requests should be submitted to the Registrar's Office one week in advance of need. The university may withhold transcripts for students who fail to meet financial obligations. Unofficial faxed transcripts are \$15. There are additional fees and charges for FedEx transcript orders. Transcript ordering information and options may be found on the Registrar's website.

**Degree Application Fee**

**\$43** degree application fee

Late fee for applying after the deadline: \$25.00

**Other Special Course Fees**

Students registering in certain courses are charged additional fees for purchase of special laboratory and studio supplies and for special services such as music practice room rentals. These fees are listed with each course in the online Timetable of Classes.



## TUITION AND FEES

### **Audit Fees**

Full fee-paying students (10 or more non-audited, main-campus credits) may audit a course without an additional fee (excluding course fees). Part-time students may audit courses for **\$10 per credit**.

### **Late Registration/Late Course Adds**

#### **\$12 per credit**

A fee of \$12 is charged if a student registers initially after the fifth day of instruction in a quarter. A fee of \$12 per credit is charged if a student adds a class after the second week of instruction. Either action requires written permission of the course instructor, department chair, and Registrar.

### **Associated Student Legislative Action Fund (LAF)**

#### **\$2 per quarter**

During registration, students are given the option of contributing \$2 to support the Associated Student Legislative Action Fund (LAF). This fee can be added or removed from a student's account until the quarterly tuition due date. The LAF contributes to legislative advocacy efforts including Western's membership to the Washington Student Association (WSA), the only student-led organization in Washington that represents student interests in the state Legislature. For more information, call 360-650-3736.

## Tuition and Fees - Extended Education

### 2013-14 Self-Supporting Tuition and Fees

#### Extension Education:

Undergraduate	\$268 per credit*
Undergraduate - RN to BSN Program	\$268 per credit*
Graduate	\$335 per credit*
Online Degree or Certificate	\$268 per credit*
Online (Independent Learning)	\$250 per credit*
Correspondence (Independent Learning)	\$131 per credit
Correspondence registration fee (nonrefundable)	\$25
Individual credit option	\$50 per credit

Summer Session - See *Summer Session* website for summer Tuition & Fees.

\*Does not include \$9 per credit Extended Student Services fee.

All self-supporting tuition and fees are subject to change without notice. Variable course fees apply to the Professional Certificate programs, workshops and special courses. Contact Extended Education and Summer Programs for current rates.

Fee reductions and tuition waivers are not applicable to self-supporting extension courses.

#### *Self-Supporting Tuition and Fees Refund Policies*

A full refund of all tuition and fees paid are given if a class is canceled or a registration is not accepted. All requests for refunds must be in writing (e-mail requests are acceptable).

#### *Credit and Online Courses*

**Full refund** — same as regular Western policy or before the second class meeting, whichever is later.

**50 percent refund** — same as regular Western policy

**No refund** — same as regular Western policy. No refunds are given after the first 30 calendar days following the first day of Western's Bellingham campus quarter.

#### **Independent Learning course**

*(including correspondence and contract courses)*

No refunds are given after 30 days from the date of registration. If assignments have been submitted, a prorated service fee is deducted from the refund. The registration fee is nonrefundable.

***Non-credit and Professional Development Courses***

***Full refund*** – is available until registration closes. After the 1st class and before the 2nd class, a full refund (minus registration fee and processing fee) is available.

***No refund*** – will be given except in cases of documented personal/family, health, or unavoidable job issues after the 2nd class. Such refunds will be prorated based on attendance.

***Summer Session***

See Summer Session website for the refund policy for summer fees.

# Undergraduate Admission

Old Main 200, 360-650-3440, [admissions.wvu.edu](http://admissions.wvu.edu)

**Every effort has been made to provide accurate information regarding admissions policies and procedures. However, these practices may change prior to catalog revision. Please consult the Office of Admissions prior to submitting an application.**

The Undergraduate Office of Admissions welcomes applications for freshman, transfer and post-baccalaureate undergraduate admission as well as readmission applications for undergraduate students returning to Western. Western Washington University's admissions policies reflect the University's commitment to enroll students with diverse interests and backgrounds who demonstrate ability, creativity, and motivation.

## General Admissions Information

Admission to Western is selective as the number of qualified applicants exceeds the number of available enrollment spaces. Standards may vary from quarter to quarter dependent upon space availability. Criteria considered in the review process include academic achievement, activities, intended program of study and individual circumstances.

An Undergraduate Application for Admission is required of all freshman, transfer and post-baccalaureate applicants. International students must complete the International Student Undergraduate Application. Former Western undergraduate or post-baccalaureate students who wish to reapply must submit the Returning Student Application. All applications must be accompanied by a nonrefundable \$55 application fee.

### *Application Deadlines and Procedures*

Although some students are notified of an admission decision prior to the application deadline, the majority of decisions are made after the application deadline. All on-time applications are given equal consideration. Applications received after the deadline will be considered on a space-available basis.

- Fall Quarter
  - Freshman (includes all Running Start applicants) - January 31<sup>st</sup>
  - Transfer, Post-bac, Former Western Student — March 1
- Winter Quarter — October 1
- Spring Quarter — January 15
- Summer Continuing to Fall
  - Freshman applications are not accepted for Summer Quarter
  - Transfer, Post-bac, Former Western Student — March 1

### International Student Application Deadlines

- Fall Quarter - January 31 (for freshman and all students applying from out of country); March 1 (for transfer/post-bacs applying from another U.S. or Canadian institution)
- Winter Quarter - October 1 (for all students applying from another U.S. or Canadian institution; applications not accepted from international students applying from out of country)
- Spring Quarter - January 15 (for all students applying from another U.S. or Canadian institution; applications not accepted from international students applying from out of country)
- Summer Quarter - January 31 (if applying from out of country); March 1 (if transfer/post-bac applying from another U.S. or Canadian institution), however international students are strongly discouraged from beginning Summer Quarter

Western extension program deadlines and fees may vary. Please contact the specific program for information. See the Extended Education and Woodring College of Education sections in this catalog or <http://www.acadweb.wvu.edu/eesp/contact.shtml> for details.

All application materials, including official transcripts and test scores, if required, must be postmarked by the deadline. To be considered official, transcripts must be sent directly from the issuing institution or be delivered in an official, sealed envelope. Transcripts must be received from all institutions attended, regardless of whether or not credit is desired.

All admitted students, other than post baccalaureates, Extension students, or former students who have been readmitted, must confirm intent to enroll by submitting a nonrefundable \$250 fee. This one-time enrollment fee funds a variety of academic support services related to new student orientation, advising, and academic success. Enrolling students must also provide proof of measles immunization prior to course registration. Admission to the University does not imply admission to a major or enrollment in specific courses. Many academic programs have selective admission requirements, including grade point average (GPA), prerequisite course work, et cetera. Students should refer to the College sections of this catalog for specific major declaration requirements.

The Office of Admissions sponsors a variety of campus visit options for prospective students. Specific information may be obtained by contacting the Office of Admissions at 360-650-3440 or by visiting [admissions.wwu.edu](http://admissions.wwu.edu).

### *Students of Color*

In keeping with our belief that a quality education requires the exchange of ideas across cultural, social, political and religious differences, Western has a proactive commitment to diversify its student body. Students of color comprised over 22 percent of Western's fall, 2012, enrollment, compared with 13.2 percent of Western's fall, 2000, student body.

### *Students with Disabilities*

The University's policy regarding admission and access prohibits discrimination on the basis of disability. Western Washington University is committed to making physical facilities and instructional programs accessible to students with disabilities. After admission, students with disabilities are encouraged to contact disAbility Resources for Students at 360-650-3083 or [drs@wwu.edu](mailto:drs@wwu.edu) so services can be discussed and coordinated in a timely manner.

## **Freshman Admission**

The most important criterion in the selection process is demonstrated academic achievement, including grade point average, quality and rigor of course work, grade trends, and SAT or ACT scores. Activities, leadership, special talent, multicultural experience and individual circumstances are also considered. An essay is required and an activities list is strongly encouraged.

Students are encouraged to pursue academic course work and advanced study beyond the minimum course requirements listed below. Academic course work exceeding the minimum requirements, including Advanced Placement, honors, Running Start and International Baccalaureate, will strengthen the application for admission.

**English:** Four units, at least three selected from college preparatory composition and literature courses. One unit may be satisfied by courses in drama, public speaking, debate, journalistic writing, ESL or business English.

**Mathematics:** Three units of mathematics are required, at the level of algebra, geometry and advanced (second-year) algebra. Students are strongly encouraged to continue taking during their senior year. More advanced mathematics courses are recommended such as trigonometry, mathematical analysis, elementary functions and calculus. Arithmetic, pre-algebra and business mathematics will not meet the requirement. An algebra course taken in the eighth grade may satisfy one unit of the requirement if second-year algebra is completed in high school.

**Science:** Two units of college preparatory science, including one unit of an algebra-based chemistry or physics, one course must include a laboratory experience. Two units of agricultural science will equal one unit of science.

## UNDERGRADUATE ADMISSION

**Social Science:** Three units of college preparatory course work, including history, government, psychology, politics, economics, geography, et cetera. Credit granted for student government, community service, or other applied or activity courses may not be used to fulfill this requirement.

**World Language:** Two sequential units in a single foreign language, Native American language or American Sign Language. Students entering the United States education system from non-English speaking countries at the eighth grade or later are exempt.

**The Arts:** One semester or one trimester in the fine, visual or performing arts, to be chosen from study in art appreciation, band, ceramics, choir, dance, dramatic performance, music, photography, et cetera. Courses in color guard, drafting, fashion design, sewing, woodworking, et cetera, are not acceptable.

**Electives:** One semester in any of the above areas is required.

Since the number of qualified applicants exceeds the number of available enrollment spaces, meeting minimum requirements is no guarantee of admission. Students who do not meet minimum eligibility requirements can be exempt under certain circumstances. College course work may also be used to fulfill high school requirements. See College Credit for High School Students section below.

### *College Credit for High School Students*

High school students earning college credit will be considered freshmen for admissions purposes, as long as the student attempts no college-level course work after high school graduation (excluding summer). The University will accept college credit in fulfillment of high school course requirements as indicated on the high school transcripts. College-level credit will be awarded in a manner consistent with standard transfer equivalency policies. To receive credit, students are responsible for submitting official college transcripts and/or score reports.

### *Running Start and College in the High School*

Regardless of number of college credits earned, Running Start students and other high school students with college credit must follow freshman application procedures and meet freshman admission standards. This includes completion of the high school course requirements and submission of ACT or SAT exam scores.

### *Advanced Placement (College Board), International Baccalaureate, and Cambridge International Exams*

Western encourages students to take Advanced Placement, International Baccalaureate, and/or Cambridge International courses and exams where available. College-level credit, to a maximum of 45 credits, will be granted to enrolling students who have scored a 3 or above on the AP exams, a 4 or above on the higher-level IB exams, and grades A-E on Cambridge A and AS level exams. See the University Academic Policies section in this catalog for further details.

### *Admission Requirements for Home Schooled Students*

All freshman applicants need to supply Western with SAT or ACT test scores along with detailed documentation that outlines the curriculum they have studied in the last four years. Typically, this documentation is in the form of a transcript. Home-schooled students must demonstrate academic preparation comparable to general freshman admission requirements. While not required, GED scores can be helpful in assessing the preparation of nontraditional applicants.

## **Transfer Admission**

Western welcomes transfer students in all majors and from all types of colleges and universities. A transfer applicant is a student who has attempted college credit after high school graduation. Please see the section on Freshman Admission if your college credits were earned while you were also fulfilling high school requirements.

Academic achievement is the most significant factor in the application review. Clearly defined academic goals, completion of major prerequisites and related experiences, number of transfer credits, contributions to and/or experiences with multiculturalism, special talent, personal circumstances, and space availability are also

considered. All transfer students are encouraged to begin taking math/quantitative skills courses as early in their college career as possible and to complete college-level math prior to submitting their application for admission.

Minimum requirements for transfer admission include a 2.0 cumulative transferable GPA and a 2.0 in the quarters prior to application review and enrollment. Students applying with fewer than 45 completed transferable quarter credits also must meet freshman admission standards. Meeting minimum requirements is not a guarantee for admission as the number of qualified applicants exceeds the number of available enrollment spaces.

In calculating the transfer admission GPA, the Office of Admissions uses all transferable academic courses, including repeats, from all regionally accredited colleges the student has attended.

Admission to the University does not imply admission to a major or enrollment in specific courses. Many academic programs have selective admissions requirements, including GPA, prerequisite course work, auditions, portfolio review, et cetera. Students should refer to the College sections of this catalog for specific major declaration requirements.

### *Transfer Policies and Procedures*

Western Washington University endorses the ***Policy on Inter-college Transfer and Articulation among Washington Public Colleges and Universities***. Detailed transfer advising information, including course equivalency information, as well as a list of transfer student rights and responsibilities, is listed on the transfer admission section of Western's website.

### *Transfer of Credit*

In general, Western Washington University grants credit for baccalaureate-oriented courses completed at accredited institutions of higher education. Transfer of credit policies are developed by the University's Recruitment, Admissions and Support Committee and the statewide Inter-College Relations Committee and approved by the University's faculty. Authority to administer these policies is shared by the Registrar, the Assistant Vice President of Enrollment and Student Services and, where applicability of major or minor is concerned, department chairs.

Several factors govern the acceptance of transfer credit. Chief among them is accreditation. For transfer credit purposes, Western recognizes those institutions which have received accreditation by the Regional Associations of Schools and Colleges.

Western allows a maximum of 135 quarter (90 semester) credits to transfer from any combination of regionally accredited institutions, including no more than 105 quarter (70 semester) lower-division credits. Additional course work which exceeds this amount may be used to meet specific requirements but additional credits will not be allowed to count toward the 180 credit requirement for graduation.

Regardless of the number of transfer credits awarded, the student must earn a minimum of 45 resident credits through Western for graduation.

Lower-division transfer coursework that is deemed equivalent to an upper-division course cannot be used to satisfy WWU's 60 credit upper-division minimum requirement.

Certain credits earned at previous institutions do not transfer, regardless of that institution's accreditation, including:

- College courses numbered below 100
- Technical and vocational courses
- Developmental education or remedial courses
- English as a Second Language
- Sectarian religion courses
- Credit for life experience/travel
- Study skills courses
- CLEP examination credit
- DANTES credit by examination

Exception to the above policies may be made in accordance with inter-agency articulation agreements.

## UNDERGRADUATE ADMISSION

### *Military credit*

Students may receive up to 30 credits for educational training based on American Council of Education guidelines. To receive these credits students must submit either an official military transcript or DD-214 for review to the Registrar's Office. These credits do not transfer from one institution to another and so may apply to the Direct Transfer Agreement (DTA) associate degree only as part of the 15 credits of nontransferable course work allowed under Inter-College Relations Commission (ICRC) guidelines.

### *Transfer of Associate Degrees*

**Direct Transfer Agreement (DTA) Associate Degree.** Students who complete a DTA associate degree at a Washington State community college prior to initial enrollment at Western ordinarily will satisfy all of Western's General University Requirements (GURs). To be accepted in lieu of Western's GURs, the associate degree must meet Washington State's Inter-college Relations Commission (ICRC) guidelines and include at least 90 credits. The DTA degree must include 75 credits that are directly transferable to Western. Up to 15 credits not normally transferable may transfer if used as part of this associate degree. Western will not accept any non-transferable credit earned after the DTA is awarded. The Pass/Fail grading option may only be used in the general elective area. Students should work closely with community college transfer advisors to ensure their curriculum choice follows the approved guidelines.

An approved associate degree is generally earned prior to initial enrollment at Western (on or off campus) as a transfer student. If any student wishes to complete such a degree in order to have it satisfy the GUR while enrolled at Western, it must be earned by the time the student 1) has completed 45 credits at Western, or 2) one calendar year has passed from initial enrollment, whichever comes later. Exceptions to the 45 credit and/or one calendar year requirement may be requested from the Registrar's Office.

**Associate of Science-Transfer Degree.** Washington State community college students intent on earning a bachelor's degree in biological sciences, chemistry, computer science, engineering technology, geology, or physics may be best served by completing the appropriate Associate of Science-Transfer degree prior to admission. While this degree will not fulfill Western's GURs, it is the most efficient route in preparing for upper-division study in most science and engineering majors. Students who complete this degree will enter Western with 90 credits and preparation for upper-division program study; however, it does not guarantee admission to the major. Up to 5 credits not normally transferable may transfer if used as part of this associate degree. Western will not accept any non-transferable credit earned after the AS-Transfer Degree is awarded.

### *General Education Transfer Agreement*

Completion of General University Requirements will be granted to transfer students from another Washington state public baccalaureate institution whose General University Requirements were completed and certified by the sending institution.

## **Post-Baccalaureate Admission**

Space for students wishing to pursue teaching certification or a second bachelor's degree is limited, and therefore admission is competitive. Proposed program of study, preparation for major, cumulative academic record, related experience, space availability and clarity of academic and career goals are the most important factors considered in the application review. All post-baccalaureate students are required to submit a **statement of purpose** with their application. Many post-baccalaureate students will find their educational needs can be met through enrollment options offered through Extended Education or Western's program for non-matriculated students. For more information, see the Extended Education and Registration sections in this catalog.

Post-baccalaureate applicants interested in pursuing a residency teaching certificate must simultaneously apply to Woodring College of Education.

## *International Student Admission*

Western's student body includes representation from more than 35 countries. In addition to meeting admissions standards comparable to those required of other applicants, international students must demonstrate English proficiency and provide proof of full financial support for all expenses for one academic year. Taking the ACT or SAT exam is required for freshman applicants and transfer applicants with fewer than 45 credits at time of application.

International applicants must demonstrate English language proficiency via one of the following options:

1. Earn a transferable associate's degree from a Washington State Community College with "B" or better grades in English 101 and English 102;
2. Minimum TOEFL score of 80 (internet-based) or 550 (paper-based) or;
3. Minimum IELTS score of 6.5

Western also offers a conditional admission option for international students who demonstrate strong academic potential but will benefit from Western's Intensive English Program prior to gaining full admission to Western.

Due to application processing time constraints, out-of-country international student applications are not accepted for winter and spring quarters.

## *Conditional Admission*

Conditional undergraduate admission may be granted to applicants who do not meet the university's **English language requirement** or who need more university preparation and English language study before entering a degree program. Students do not need to submit a TOEFL or IELTS score to apply for conditional admission. However, before beginning to take regular university classes and moving into full admission status, students will need to demonstrate a high level of academic English ability, equivalent to Western's English language requirement, through Intensive English Program coursework. Applicants must confirm their acceptance of conditional admission by applying for and enrolling in the Intensive English Program (IEP) at Western. Applicants must fulfill all other requirements for undergraduate admission, including having competitive grades from previous high school or post-secondary institutions. Freshman applicants need to have completed foundation coursework in English, humanities, mathematics, natural/physical sciences and social sciences. Additionally, for transfer applicants, college level English, math, and academic coursework and experiences related to one's academic area of interest will further strengthen the application.

Conditional Admission students must attend the Intensive English Program full-time for a minimum of one quarter. Before enrolling in their first credit classes, students must successfully complete IEP Level 5 Academic English courses (Academic Preparation, Research Writing, Academic Communications, Academic Reading, and Applied Language Skills). During the first quarter of matriculation, all international students entering undergraduate programs, including conditional admission students, will enroll in the Bridge Program, which consists of university credit courses offered by English, Communication, and other Departments.

For more information, contact the Intensive English Program office at 360-650-3308, send e-mail to iep@wwu.edu, or visit the IEP webpage at www.iep.wwu.edu.

## **Readmission of Former Students**

Undergraduates pursuing a first bachelor's degree after an absence from campus generally are guaranteed readmission as long as they left Western in good academic standing and follow readmission application instructions. Post-baccalaureate students returning after an absence from campus must include a detailed academic plan of study, as the post-baccalaureate readmission process is selective. Former students must submit a **Returning Student Application** that includes a list of all educational institutions attended since leaving Western and meet deadlines cited under **Application Deadlines and Procedures** section whenever possible. Students applying to return after dismissal from the University must follow reinstatement procedures detailed in the University Academic Policies section of this catalog.

Students who have been dropped for low scholarship, even if absent for five years or more, must pursue reinstatement. See **Reinstatement** section under University Academic Policies.



## UNDERGRADUATE ADMISSION

Former Western extension program students returning to the same Western Washington University extension program to pursue a first bachelor's degree or post-baccalaureate study must complete the appropriate Extension Program Returning Student Application and submit it with a \$55 nonrefundable application fee. A former Western undergraduate student who returns to the University after an absence of five years or more may be given permission to start a new cumulative grade point average. See Fresh Start policy in University Academic Policies section.

### **Extension Program Admission Information**

Western's general admissions requirements apply to all extension programs. Additional application procedures may be required. Extension program deadlines and fees may vary. The extension program sites offer informational sessions for prospective students. For specific program information, see the Extended Education and Woodring College of Education sections in this catalog.

Applicants to Western's extension programs must complete the Transfer & Post-baccalaureate Application for Extended Education Programs and submit it with a \$55 nonrefundable application fee. International applicants to Western's extension programs must also complete the Extension International Supplement. Applications are available at all extension sites or online on the admissions website.

Former Western extension program students returning to a Western extension program must complete the Extension Program Returning Student Application and submit with a \$55 nonrefundable application fee.

### **Special Students and Auditors**

The Registrar's Office grants course registration privileges on a space-available basis, for one term at a time, to auditors, Washington state employees, and residents over 60 years of age who are eligible for tuition reduction. Special students and auditors must submit a Special Student Enrollment Form to the Registrar's Office each quarter. The form can be found online at: <http://www.wvu.edu/depts/registrar/forms.shtml>.

#### *Early Admission/Concurrent Enrollment While in High School*

Students who plan to graduate from high school early should follow standard freshman admission procedures. Students interested in concurrently enrolling in courses while also attending high school may apply at the Registrar's Office to take courses as non-matriculated students. This program allows eligible students to enroll in courses on a space available basis. Students who are interested in being formally admitted as matriculated students while staying in high school must demonstrate superior academic achievement, fulfill all freshman admission requirements, and demonstrate that they have exhausted all academic opportunities available through their high school and local community college. Concurrently enrolled high school students are not eligible for financial aid or WWU scholarships.

## **University Residences**

*Edens Hall, 360-650-2950*

housing.wvu.edu

University Residences engages students in diverse and inclusive, healthy, safe and sustainable communities that foster academic success and personal growth. Western's residential experience is intentionally designed to help students learn about themselves, and how to live and work with others. Living on campus is completely optional, but new freshmen and transfer students who meet the housing deadlines are guaranteed housing their first year at Western; returning residents are accommodated on a space available basis. Extensive research shows that students who live on campus earn higher grades and graduate in higher numbers than students who live off campus. At WWU, about 92 percent of freshmen and 28 percent of transfer students choose to live on campus their first year. To be eligible for campus housing, undergraduates must be enrolled in a minimum of (10) credits per quarter, and graduate students must be enrolled in a minimum of (8) credits per quarter.

## **University Dining Services**

*Edens Hall, 360-650-2970*

dining.wvu.edu

University Dining Services provides a campus-wide experience that supports active, healthy lifestyles, sustainability, social responsibility and community development. Three dining commons and a dozen cafés and markets serve the campus community with a variety of menu options that include vegan, vegetarian, gluten free and local fare. Meal plans and Viking Dollars are available to all members of the campus community. University Dining Services also offers full service, customizable catering for events of all sizes, on and off campus. University Dining Services is committed to sustainable practices in all aspects of its operations, including locally sourced food, compostable packaging, food composting, zero-waste catering and Fair Trade coffee. University Dining Services employs over 500 part-time student staff in its food service and catering operations.

# University Academic Policies

## Student Responsibility for Observing Policies

Students are directed to the Appendices section in this Catalog for information on university policies and administrative rules (Title 516 WAC), academic honesty, academic grievances, and other important policies.

Information on university policies is also located on the university policy website:

<http://www.wwu.edu/depts/policies/>. Information on WWU's administrative code rules (Title 516 WAC) is located at <http://apps.leg.wa.gov/wac/default.aspx?cite=516>.

The University attempts to make students aware of academic policies through the publication of the Catalog, the online Timetable of Classes, other materials, and in advising sessions. It is the student's responsibility to become familiar with those policies and to be aware of any policy changes that may occur.

Once application materials have been submitted, they become the property of Western Washington University.

## E-Mail as Official Means of Communication

Recognizing the expanding reliance on electronic communication, WWU has determined that e-mail will be one of the University's official means of communication. See POL-U7100.02 Using E-mail Accounts for Official Correspondence with Students at [http://www.wwu.edu/policies/s\\_affairs.shtml](http://www.wwu.edu/policies/s_affairs.shtml). E-mail correspondence will be sent to students' WWU e-mail addresses. Departments, faculty and staff may use e-mail instead of the U.S. Postal Service to provide students with information relating to official University business. U.S. Postal Service or campus mail can still be used as appropriate. This policy only applies to e-mail messages sent by the University to students that are designated as "WWU Official Communication."

<b>College Board Advanced Placement Examinations</b>			
<b>Department</b>	<b>Score</b>	<b>Subject Examination</b>	<b>WWU Courses/Credit/GUR</b>
Art	3, 4, 5	Art History	A/HI Electives (4 credits) Humanities GUR
	3, 4, 5	Studio Art: Drawing	ART Electives (4 credits)
	3, 4, 5	Studio Art: 2-D or 3D Design	ART Electives (4 credits)
Biology	3, 4, 5	Biology	BIOL 101, 102 (8 credits) Lab Science GUR
Chemistry	3, 4, 5	Chemistry	CHEM 121, 122 (10 credits) Lab Science GUR
Computer Science	3, 4, 5	Computer Science A/AB	CSCI 141 (4 credits) Quantitative & Symbolic Reasoning GUR
Economics	3, 4, 5	Microeconomics	ECON 206 (4 credits) Social Science GUR
	3, 4, 5	Macroeconomics	ECON 207 (4 credits) Social Science GUR
English	3	English Lit & Comp.	ENG Electives (4 credits) Humanities GUR
	4, 5	English Lit & Comp.	ENG 101 Communication GUR - Block A waived; ENG Electives (4 credits) Humanities GUR
	3	English Lang. & Comp.	ENG Electives (4 credits) Humanities GUR
	4, 5	English Lang. & Comp.	ENG 101 Communication GUR Block A waived; ENG Electives (4 credits) Humanities GUR
Environmental Science	3, 4, 5	Environmental Science	ESCI 101 (3 credits) Science GUR
Geography	3, 4, 5	Human Geography	ENVS 204 (4 credits) Social Sciences GUR
	3, 4, 5	U.S. History	HIST 103, 104 (10 credits) Humanities GUR

History	3, 4, 5	European History	HIST 113 (5 credits) Humanities GUR
	3, 4, 5	World History	HIST Electives (5 credits) Humanities GUR
Mathematics	3, 4, 5	Calculus AB or BC**	MATH Electives (5 credits) Quantitative & Symbolic Reasoning GUR
	3, 4, 5	Statistics	MATH 240 (4 credits) Quantitative & Symbolic Reasoning GUR
	**Student may receive credit for either AB or BC, but not both unless recommended by Mathematics Department after placement.		
Languages	3	Lang. or Lit. exam in Chinese, French, German, Italian, Japanese, Latin, Spanish***	101 (5 credits)
	4, 5	Lang. or Lit. exam in Chinese, French, German, Japanese, Latin, Spanish***	101, 102 (10 credits)
	4, 5	Italian Language & Culture	101 (5 credits) plus Electives (5 credits)
	***Student may receive credit for either Lang. or Lit., but not both		
Music	3, 4, 5	Music Theory	MUS Electives (3 credits)
Physics	3, 4, 5	Physics B	PHYS 114 (5 credits) Lab Science GUR
	3, 4, 5	Physics C: Mechanics	PHYS 161 (5 credits) Lab Science GUR
	3, 4, 5	Physics C: Electricity and Magnetism	PHYS 162 (5 credits) Lab Science GUR
Political Science	3, 4, 5	U.S. Government & Politics	PLSC 250 (5 credits) Social Science GUR
	3, 4, 5	Comparative Government and Politics	PLSC 291 (5 credits) Social Science GUR
Psychology	3, 4, 5	Psychology	PSY 101 (5 credits) Social Science GUR

### Credit by Exam, Prior Learning and Advanced Placement

Advanced Placement, Prior Learning Credit and Credit by Exam is granted only to matriculated students. The maximum credit granted for any combination of Advanced Placement, Prior Learning and Credit by Examination is 45. Additional credits which exceed 45 and carry GUR applicability may be used to satisfy the GUR. Decisions will be made on a case-by-case basis.

1. *Western Washington University Advanced Placement*

*One quarter of successful performance in an advanced course in a sequence which is developmental in nature can, upon departmental recommendation, qualify a student for credit in the preceding course; admission to the advanced course is subject to permission of the department.*

2. *Western Washington University Course Challenge*

*Challenge examination or procedures prepared by the department concerned.*

The following regulations govern course challenges:

- Students desiring to challenge a course should apply to the Testing Center by the fourth week of the quarter. The time and procedure to be followed in completing the evaluative process will be announced by the Testing Center. A special fee is charged for each challenge examination. See Tuition and Fees.
- If the challenge is passed, the result of the challenge is recorded as "Satisfactory" on the student's permanent record and is not used in computing grade point averages
- The challenge application will normally be denied:
  - If the student is currently enrolled in the course
  - If the student has previously established credit for a similar course at this or another institution

# UNIVERSITY ACADEMIC POLICIES

- If the student has previously failed the course
- If the student has previously challenged the course and failed
- If the student has previously audited the course
- If, in the judgment of the director of the Testing Center, in consultation with the department concerned, the challenge procedure is inappropriate
- If the student is in his/her final quarter prior to graduating and the course is part of the General University Requirements
- If, in the judgment of the academic department, the student has not demonstrated sufficient familiarity or understanding to have a reasonable chance of passing a challenge examination

### 3. *Prior Learning Credit*

Western Washington University will award credit for prior learning on a case by case basis. Students seeking prior learning credit must apply to the Registrar's Office within 6 weeks of their first term of enrollment after admission. The Registrar's Office coordinates and documents the petition review with the applicable academic department. Academic departments and affiliated faculty are considered experts and specialists in their respective disciplines and therefore the authority in evaluating prior learning experience, equivalency in credit and relationship to degree. The Registrar's Office will award prior learning credit as approved by academic departments.

### 4. *International Baccalaureate (IB)*

Western Washington University will grant 15 credits for each approved higher level International Baccalaureate subject examination passed with a score of four (4) or above according to the chart. In accordance with the previously stated university policy, a maximum of 45 credits for any combination of Advanced Placement and Credit by Examination will be granted. Higher level subject exams may earn a student General University Requirement (GUR) credit or elective credit, according to the following chart. Not all subject exams earn credit. The departments of Art and Modern and Classical Languages do not grant credit for IB exams, but may use the exam results for purposes of program placement and/or course waivers. Students who have passed higher level exams in subjects not listed on the chart will need to consult with the Office of Admissions. Such exams will be considered on an individual basis to determine eligibility for elective or GUR credit.

### 5. *College Board Advanced Placement Examinations in certain subjects.*

The department concerned has determined the minimum acceptable score and credit as shown on previous page.

### 6. *University of Cambridge International Exams.*

WWU will grant 15 credits for approved A-level examinations and 7.5 credits for approved AS-level examinations with passing grades of A-E. Credit will not be granted for both an A-level and an AS-level exam in the same subject area. Some exams may also apply to GUR. In accordance with the previously stated university policy, a maximum of 45 credits will be granted for any combination of Advanced Placement and Credit by Examination. Students should submit official results of the Cambridge International Exams to the Office of Admissions for determination of transfer credit. At the time of this catalog's publication, the following exams will not result in credit:

- Applied Information and Communication Technology
- Computing/Computer Studies/Computer Applications
- Design and Technology
- General Paper
- Thinking Skills
- Use of English

<b>International Baccalaureate (IB)Credit</b>		
<b>Higher Level Subject Exam</b>	<b>Score</b>	<b>WWU Equivalency, Credits and GUR status if applicable</b>

Biology	4 or higher	BIOL elective (15 credits) - Satisfies Natural Science GUR
Chemistry	4 or higher	CHEM elective (15 credits) - Satisfies Natural Science GUR
Economics	4 or higher	ECON elective (10 credits) - Social Science GUR and ECON elective (5 credits)
English	4 or higher	ENG 101 (5 credits) - Communication Block A GUR and ENG elective (10 credits) - Humanities GUR
Geography	4 or higher	ENVS elective (5 credits) - Natural Science non-lab GUR and ENVS elective (10 credits) - Social Science GUR
History <i>The Americas</i>	4 or higher	HIST elective (10 credits) - Humanities GUR and HIST elective (5 credits) - CGM Block B GUR
History <i>European</i>	4 or higher	HIST elective (10 credits) - Humanities GUR and HIST elective (5 credits) - CGM Block A GUR
History <i>World</i>	4 or higher	HIST elective (10 credits) - Humanities GUR and HIST elective (5 credits) - CGM Block A GUR
Physics	4 or higher	PHYS elective (15 credits) - Satisfies Natural Science GUR
Psychology	4 or higher	PSY elective (5 credits) - Social Science GUR

## Course Numbering

Courses numbered from 100 to 299 are classified as lower division; those numbered from 300-499 as upper division. Generally, the first digit of a course number indicates its intended class level:

- 100-199 — First-year (freshman) courses
- 200-299 — Second-year (sophomore) courses
- 300-399 — Third-year (junior) courses
- 400-499 — Fourth-year (senior) courses
- 500-699 — Graduate-level courses

Only courses numbered 100 or above appear on the official transcript.

Except in unusual circumstances, students are not permitted to take courses more than one year above their class standing. Any undergraduate student wishing to enroll in a course numbered 500 or higher must obtain approval (an override) from the instructor and the Graduate School. (See the Graduate School section of this catalog.)

The numbers 197, 297, 397, 497 and 597 are used for temporary courses.

The number 117 is reserved for First Year Experience (FYE) courses.

The number 699, continuous enrollment, is reserved for master's degree students in their final quarter who have registered for all their course work. Contact the Graduate School for further information.

The numbers 137, 237, 337, 437, 537 are reserved for Faculty-led Global Learning Programs. These courses are offered through the WWU International Studies program or through colleges. Contact the Office of International Programs and Exchanges, Miller Hall 208, for information. Repeatable with different subject matter.

The numbers 300, 400, 500 are reserved to designate Directed Independent Study (1-15), enabling students to pursue, on an individual basis, topics not covered by the curriculum.

***Courses listed in this General Catalog constitute a record of the total academic program of the University.***

Except for unforeseen scheduling and personnel circumstances, it is expected that each course will be offered during the period of this catalog. In some cases, a new course may be offered in the Summer Session prior to appearing in the General Catalog. Such a course would be described in the Summer Session website.

# UNIVERSITY ACADEMIC POLICIES

For an exact scheduling of courses at Western and details regarding titles, prerequisites, number of credits and grading for specific courses not listed in this catalog, students should consult the annual online Timetable of Classes, Classfinder or the Summer Session website for summer quarter.

## Prerequisites

The student is responsible for ensuring that he or she has satisfied all prerequisites, with a grade of C- or better, before registering for a given course. Although some prerequisite enforcement is driven by the Web registration system, students should not assume they are eligible to enter a course without having taken the prerequisite just because the system allows them to register for the course. A student who has registered for a course without satisfying prerequisites or obtaining permission may be required by the instructor to withdraw from the course.

## Waitlisting & Registration

When a course reaches capacity during Phases I, II and III of registration, students may add themselves, via Web4U, to an automatically-generated waitlist. Before waitlisting is allowed, students must meet all enforced course prerequisites and other course restrictions listed in the University Catalog, the online *Timetable of Classes*, and *Classfinder*

When a seat becomes available in a waitlisted class, an automated email message is sent to the official WWU email address of the first student on the waitlist, notifying the student of the available seat. Students may also sign up to have waitlist notifications and other official WWU communications sent via text message. Students who receive notification of seat availability are responsible for registering via Web4U before the notification expires. During Phases I and II, notifications are active for 24 hours from the time the notification is sent, and for 12 hours during Phase III. The notification expires if the student does not register within the time allowed. A notification is then sent to the next student on the waitlist. All other registration policies are applicable when waitlisting services are active.

Further details on waitlisting and how to sign up for text message delivery can be found under Registration on the Registrar's Office website.

## Credits and Credit Loads

Credits are assigned to a class based on the amount and type of work expected from a typical student in class. Credit is awarded for courses only in the quarter in which the student is registered for the classes and completing the work.

Classes will be assigned one credit for each hour per week of classroom discussion or lecture, and one credit for every two hours per week of laboratory or practice/rehearsal involving some preparation or reporting. Classes using different formats for at least part of the course will be assigned credit for amounts and types of work equivalent to those described above. When such a component is proposed, the type and amount of work involved must be described in detail. In particular, the activity for which credit is assigned must be structured and occur at regular or periodic intervals throughout the course, and faculty must supervise and evaluate students' work in this activity.

Since each hour in a course requires at least two additional hours of study, and since students usually register for several courses, Western has established the following credit load policies for undergraduate students:

- The standard load per quarter for undergraduates is 15 credits. In order to graduate in four years, students must average 15 credits per quarter. **NOTE:** some majors require more than four years of study.
- During the first quarter of residence, a load must not exceed 17 credits; before registering for more than 15 credits, students should consult with their advisors
- After the first quarter of residence, the maximum allowable load is 20 credits per quarter; students are limited to 17 credits during Phase I of registration
- Employed students are advised to adjust their credit load accordingly

## Correspondence Credit

Correspondence credit earned through a fully accredited college or university, including Western's Independent Learning program, may be accepted toward the bachelor's degree. Some departments limit the number of correspondence credits that may apply toward the major. Enrollment in only correspondence courses through Western's Independent Learning program does not qualify as continuing enrollment for newly-admitted, first quarter Western students. Contact the Registrar's Office for information regarding student status.

## Non-Matriculated Students and Credit Limitations

A program for non-matriculated students allows community members not admitted to Western and undergraduate/certificate extension program students to enroll in Bellingham campus courses. Non-matriculated students are not eligible to register or get on waitlists until the first day of the quarter. Students who have been dismissed from Western due to low academic standing may not enroll as non-matriculants except during summer quarter.

A student must be admitted to Western to apply credit to a degree. A maximum of 45 credits earned as a non-matriculant may be accepted toward a bachelor's degree at Western. Contact the Graduate School for information on applying credit to graduate programs.

Students enrolled as non-matriculants are subject to all University academic policies as enumerated in this section of the catalog. They must maintain good academic standing according to University scholarship standards. Continued low scholarship will result in the loss of future registration privileges.

## Auditing Courses

Auditors are persons who desire to attend courses without earning credit. Written permission from the instructor and approval from the Registrar's Office are required to register to audit a class.

Auditors may not actively participate in class and therefore certain courses may not be audited, including, but not limited to physical education activities, laboratory courses, studio courses, independent study courses, language courses, courses not taught in a group setting, and any other course the Registrar deems ineligible. Auditing a course cannot be used toward successful completion of academic credit.

Auditors are not allowed to register until the first day of the quarter, and the course must not have reached maximum enrollment. Changes to or from audit cannot be made after the first five days of the quarter.

Students enrolled for 10 or more non-audited credits may audit a course without an additional charge.

Students enrolled for less than 10 credits should refer to the Tuition and Fees section "Auditing a Class."

Students approved to register for an audit are responsible for paying any course fees attached to the course. Students who choose to audit self-supporting classes through Extended Education are required to pay the full amount of tuition and fees.

## Special Registration Privileges

The Registrar's Office grants course registration privileges on a space-available basis fall, winter and spring quarters, for one term at a time, to auditors, Washington State employees, and Washington residents 60 years of age and older who are eligible for tuition reduction. Tuition reduction for summer quarter is available to WWU employees only. Written permission from the professor is required to audit a class. Special students and auditors must submit a Special Student Enrollment Form and/or the applicable tuition/fee waiver application to the Registrar's Office 2-3 weeks prior to the beginning of each quarter. The forms can be found online at: <http://www.wvu.edu/depts/registrar/forms/shtml>.

## Class Standing

An undergraduate student is classified as a freshman when his or her total completed credits (including transferred credits) range from 0 to 44, a sophomore with credits of 45 to 89, a junior with credits of 90 to 134, and a senior with credits of 135 or more.



## Full-Time Status

180 credits are the minimum number of credits required to graduate with a bachelor's degree from Western Washington University. Many majors require more than the minimum of 180 credits. In order to graduate in four years, a student should plan to enroll in an average of 15 credits each quarter. Undergraduate students must be enrolled for a minimum of 12 credits in order to be considered full-time (e.g., eligibility for financial assistance, full-time veterans' benefits, participation in intercollegiate athletics, etc.) Graduate students, officially admitted to the Graduate School must be enrolled in a minimum of 8 credits for financial aid purposes and veterans' benefits. *Students are advised to check carefully to determine that they meet the definition of "full-time enrollment" for the program in which they are participating.*

The following table illustrates the minimum number of credits to be considered full time, three-quarter, or half time each quarter.

	Undergraduate	Graduate
Full time (for financial aid eligibility, veteran's benefits, athletic eligibility, enrollment verification to outside agencies)	12 or more credits	8 or more credits
Three-quarter time (for financial aid eligibility, veteran's benefits, enrollment verification to outside agencies)	9, 10 or 11 credits	6 or 7 credits
Half-time (for financial aid eligibility, loan deferments, enrollment verification to outside agencies)	6, 7 or 8 credits	4 or 5 credits

Full fees are assessed to all students enrolled in 10 credits or more. Students enrolled in at least 10 credits are eligible to live in on-campus housing, hold Associated Student office and obtain on-campus student employment.

The Student Health Center is available to all students enrolled in 6 or more credits on WWU's Bellingham campus. Students registered for 3 to 5 credits have the option of paying the Health Services fee to use the services during a quarter. Former students, students on leave, dependents of students, faculty and staff of WWU, and Whatcom Community College students living on WWU's campus are not eligible for these services. Graduate students must be enrolled in a minimum of 8 credits to be eligible for graduate teaching assistantships (TAs). If a graduate student has completed all the course work listed on the approved plan of study with the exception of the thesis (690) or research (691), the graduate student may remain eligible for the TA appointment by enrolling for as few as 2 credits (with prior approval from the Graduate School). Other graduate students who have completed all the course work listed on the approved plan of study with the exception of the thesis (690) or research (691) should consult with the Graduate School regarding the minimum credit requirements.

This table applies to fall, winter and spring quarters only. Enrollment status and requirements for summer may differ. Please consult the appropriate program office.

## Adding a Course

A student may add a course to an existing schedule as late as the fifth day of the quarter. After that time, course additions are allowed only under unusual circumstances and require written permission or current override from the course instructor or department. A special late-add fee is charged when adding after the second week (see Tuition and Fees section).

## Class Attendance

Students are expected to be prepared for class and to be in attendance for all class meetings unless directed otherwise by their instructor. Attending the first meeting of every class is critical to academic success and being absent from the first class meeting without discussing the absence with the instructor in advance may result in being asked to drop the course.

A student absent from any exam or class activity through sickness or other cause judged by the instructor to be excusable shall be given an opportunity to take a rescheduled exam or make up the class assignment in a timely manner agreed upon by the instructor (see Leaves of Absence). Examples of excused absences may include participation in University-sponsored activities such as debating contests, musical or theatrical performances, or intercollegiate athletic competition. Students involved in university sponsored activities who know of a scheduled event or activity they will participate in that will result in a class absence are expected to notify their instructor early in the academic term to determine alternative arrangements for missed material, assigned work or examinations.

University policy does not allow a student to attend or participate in a class without formally being registered for it. It is the student's responsibility to ensure that he or she is properly registered for each course in their schedule.

### **Withdrawal from a Course**

Single course withdrawals that occur prior to the sixth day of the quarter are considered to be a change of initial registration and results in no entry on the permanent record (transcript). To withdraw from a course during the first five days of the quarter, a student must complete the transaction on Web4U. If withdrawing from all courses on or after the first day of the quarter, it is considered a 'school withdrawal' and it is recorded on the official transcript as a grade of SW (see Withdrawal from the University).

Course withdrawals that occur from the beginning of the sixth day of the quarter to the end of the second week will result in no entry on the permanent record (official transcript), but a mark of "XM" will appear with the withdrawn course on the unofficial record (academic history). If withdrawing from your only class during the second week, a grade of SW will appear on the permanent record. Withdrawals that occur beginning the sixth day of the quarter may affect a student's tuition charges and may result in a credit of half of applicable tuition only. Fees are not refunded after the fifth day of the quarter. There also may be implications for financial aid recipients' awards. Beginning with the sixth day of the quarter, a student must complete the withdrawal in person at the Registrar's Office in Old Main 230, during regular business hours. Beginning the third week of the quarter, a mark of "W" is posted for each withdrawn course.

Course withdrawal from the beginning of the third week to the end of the seventh week is permitted only if the student has an unused annual withdrawal privilege. Each student is granted two annual withdrawal privileges at the beginning of the academic year in fall quarter. The annual withdrawal privileges can be used during fall, winter, spring or summer quarter. (See Summer Session for summer course withdrawals.) Unused annual withdrawals cannot be used in subsequent years. To use an annual withdrawal privilege, a student must complete the withdrawal in person at the Registrar's Office.

After the seventh week of the quarter, course withdrawal is not permitted. Discontinued attendance without official withdrawal results in a failing grade (Z or F). Course withdrawal deadlines are published in the dates and deadlines section of the Registrar's Office website and the Summer Session website.

To withdraw from an extension course, a student must file the appropriate form through the extension office. For specific site information, see the Extended Education section in this catalog.

Students may drop an Independent Learning course by contacting the Independent Learning Office in writing. There is no refund 30 days after registration.

### **Withdrawal from the University**

Formal withdrawal from the University, including a self-supporting program, may be made at any time before the final two weeks of a quarter. Summer Session deadlines vary depending on the length of the course (refer to Summer Session section in this catalog). After the first five days of the quarter, students must initiate the withdrawal process in the Registrar's Office or at their extension site. Beginning the first day of classes, a grade of SW (school withdrawal) is posted on the permanent record for each course for which the student was registered.

Upon registering for courses, students incur a legal debt to the University. When a student leaves the University during a quarter without formally withdrawing, any unpaid debt is not automatically canceled.

## UNIVERSITY ACADEMIC POLICIES

A withdrawing student who will be away from Western a full quarter or more, except summer quarter, must apply for readmission prior to the deadline stated in the Undergraduate Admission section of this catalog.

### Hardship Withdrawal

A student who is unable to complete the quarter or a class due to a significant hardship may petition to withdraw from the University or a course after the stated deadline. Hardship is considered to be an incapacitating illness or injury requiring extensive recuperation or a significant personal emergency such as a death in the immediate family. **Verification of the hardship is required.**

Petitions for the withdrawal due to hardship are available in the Student Life Office and must be submitted by the deadline determined by the Student Life Office. A complete school withdrawal results in grades of SW for each course for which the student was registered. If the student qualifies for a partial withdrawal, a grade of W is posted for those courses.

Summer withdrawal deadlines and policies are published on the Summer Session website.

### Emergency Leaves of Absence

A leave of absence from classes may be granted when psychological or family emergency, illness or injury requires a student to be absent from class. Leaves of absence are issued only upon request from the student and may be granted for two days, but no more than five days during an academic quarter or summer session. If a faculty member requires official notification of student medical or emergency leaves of absence, the faculty member will inform the students in his/her courses of that fact in the course syllabus. Non-medical leaves of absence are available through the Dean of Students Office and medical leaves through the Student Health Center. **All leave of absences require proper verification.**

While a leave of absence generally makes it possible for the student to make up work missed, in some instances the amount of time lost makes course completion impractical. In those cases, withdrawal or incomplete grades may be appropriate. A student absent from any exam or class activity through sickness or other cause judged by the instructor to be unavoidable shall be given an opportunity to take a rescheduled exam or make up the class assignment in a timely manner agreed upon by the instructor. Examples of unavoidable cause may include participation in university-sponsored activities such as debating contests, musical or theatrical performances, or intercollegiate athletic competition. The student should consult with the course instructors and/or the Dean of Students Office.

### Insufficient Progress Toward Degree and Registration Holds

The University reserves the right to deny access to classes by students who make insufficient progress toward a degree or major. Insufficient progress toward a degree is determined by the Registrar in consultation with academic and administrative officials. Insufficient progress toward major is determined by the department chair in consultation with the Registrar. Students who fail to make progress toward a degree or who repeatedly withdraw from the University after registering may have their enrollment privileges suspended. Students on probation who repeatedly register for Pass/No Pass or Satisfactory/Unsatisfactory courses may have their registration privileges suspended. Students who fail to declare a major by the time they reach 105 credits may not be permitted to register. Students who reach 210 credits without graduating or submitting a degree application or approved plan of study may not be permitted to register.

### Criteria for determining Insufficient Progress

Degree-seeking students who fail to make progress toward a degree based on one or more of the following components of evaluation may have their enrollment privileges suspended or other administrative action taken (conditions that would be applied to help students succeed academically):

- Continuing students with a net completion rate of fewer than 80% of credits attempted at WWU (excludes courses dropped before the second Friday of the quarter)
- Students with repeated coursework in more than three courses or any single course more than once.

- Students who earn a quarterly grade point average below 2.0 for two or more consecutive quarters
- Students who take more than two course withdrawals of any type (late course withdrawal, hardship withdrawal, school withdrawal) within a calendar year (September 1 - August 31)

## Finals Preparation Week

The week immediately preceding final examination week is known as finals preparation week and provides the following protections which enable students to complete their studies without undue hardships:

- Final examinations must be administered at the date and time specified in the final examination schedule, with the exception of laboratory-section final exams
- During finals preparation week, no examinations shall be administered; exceptions may be made if there is agreement of the instructor, the appropriate department chair and/or dean, and the entire class membership
- No graded assignments shall be introduced during finals preparation week
  - Students may consent, on an individual basis, to accept new graded assignments for purposes of extra credit and/or makeup for previous assignments
  - Instructors must have notified students in writing, by the end of the course's fifth week, of any graded assignments whose due dates fall during finals preparation week

The term "graded assignments" refers to written or oral presentations which are a required component of class performance and which are utilized in determining students' letter grades or evaluations for the quarter. Examples include essays, papers, research projects and class presentations or quizzes.

## Final Examinations

Final examinations, given in most courses at Western, are administered according to a schedule published in the online Timetable of Classes. ***The scheduled days and hours for these examinations may not be changed. The final examination is normally held where the course meets.***

All final examinations are scheduled during the last week of the quarter, which is known as final examination week. No final examinations except laboratory finals — whether for a whole class or part of a class or an individual — may be given before final examination week. This means that students may not petition faculty for early final examinations and that students should plan their end-of-quarter schedules in the expectation of final examinations in all courses. In the rare cases where final examinations are not given, instructors will notify students at the beginning of the quarter.

A student who fails to take a final examination without making prior arrangements acceptable to the instructor receives a failing grade for the course. Under unusual circumstances, an instructor may allow a student who has been making satisfactory progress in the course to take a late final examination and receive a temporary incomplete (K) grade. This privilege is available only to students who have been making satisfactory progress in the course. The incomplete grade given in this manner should be removed early during the next quarter.

If the final examinations schedule causes a student to take three or more examinations in one day, any of his or her instructors may arrange an examination ***later*** during finals week.

There is no final examination week in summer session. Course requirements are determined by each instructor.

## Grades and Grade Reporting

At Western, grades describe both a student's mastery of subject matter and the ability to communicate that mastery in examinations, essays, demonstrations and discussions. The three grading systems are described below. (Fairhaven College is authorized to follow a different system described in the Fairhaven College of Interdisciplinary Studies section of this catalog.)

## A-F Grading

### Satisfactory/Unsatisfactory Grading

Some courses are graded on the Satisfactory/Unsatisfactory system. For these courses, appropriate curricular agencies have determined that the traditional A-F system is inappropriate. If a course has been approved for S/U grading, the only grades that may be assigned are S, U and K. Neither S nor U is considered in the calculation of grade averages.

All S/U courses are identified in the course descriptions of this catalog and in the online Timetable of Classes.

### Pass/No Pass Grading

Students may choose the Pass/No Pass grading option in certain elective courses. The minimum level of performance required to receive a grade of P varies from course to course and is determined by each instructor or department. Students should not assume that performance equal to a grade of D or higher will result in a passing mark. Often performance at the level of C or higher is required. Regulations pertaining to Pass/No Pass grading are as follows:

- Courses graded Pass/No Pass may not be applied to the major and minor, supporting courses, professional education requirements, upper-division writing proficiency requirement and General University Requirements
- Graduate courses taken for the graduate degree cannot be taken Pass/No Pass
- Courses graded Satisfactory/Unsatisfactory cannot be taken Pass/No Pass
- To designate a course as Pass/No Pass students must submit a request at the Registrar's Office after registering for the course; they may change this designation by submitting the change to the Registrar's Office at any time through the fourth week of a quarter. For extension program courses or Summer Session, please see Summer Session or Independent Learning deadlines.
- Prerequisites, work required and credit allowed may be affected by election of the Pass/No Pass option
- In computing grade averages, neither the P nor NP grade in Pass/No Pass courses is counted
- Should a student change his or her major or minor, the academic departments involved are the sole judges of the acceptability of any Pass/No Pass courses already completed in the newly chosen major or minor
- Once a student has earned NP grades in courses totaling 10 credits, he or she may no longer register for courses under the Pass/No Pass option
- Math 099 is a non-credit course that does not appear on the official transcript but will appear on the academic history. A grade of YP indicates pass, a grade of YN indicates no pass, and a grade of YK indicates incomplete. These grades are not calculated into the student's grade point average or earned credits.

**NOTE:** Excessive use of the Pass/No Pass grading system may negatively influence admission to some graduate or professional schools.

### The Incomplete (K) Grade

The grade of K (incomplete) may be assigned under all grading systems. It may be assigned only upon request of the student and agreement of the course instructor. Normally it is given only to a student who has been in attendance and has been doing passing work until the final two weeks of the quarter when extenuating circumstances beyond his or her control make it impossible to complete course requirements on schedule. (Extenuating circumstances do not include mere lateness in completing work, the desire of a student to do extra work to raise a poor grade, et cetera.)

To receive a K grade, a student must print a contract form and negotiate a formal agreement with the course instructor specifying the work done and the remaining work to complete the course and earn a grade. One copy is kept by the student and one by the faculty member.

Normally, the student completes the work agreed upon during the next quarter and a final grade is submitted by the instructor. After one year, however, if a final grade has not been submitted, the K automatically reverts

to a failing grade (Z), and the student may establish credit only by registering again for the course. (Grades of K earned in thesis courses numbered 690 do not lapse to failure.) Once a final grade has been submitted, the student's record will show the K grade as well as the final grade. In no case will a final grade replacing a K affect the student's academic standing in the quarter in which the final grade is assigned.

Removing a K grade (and replacing it with a final grade) will not affect the student's faculty action (scholarship standing) for the quarter in which the K was assigned, nor will it affect the faculty action for the quarter in which the final grade is recorded if the grades and faculty action for that quarter have already been submitted. However, it will affect the cumulative grade point average as soon as the final grade is recorded. A student who receives an incomplete in a required course the final quarter before graduating must complete the course within two weeks of the end of that quarter in order to graduate at that time. If the course is completed after two weeks, the prospective graduate is subject to resubmitting the degree application and registration in another course to satisfy the final-quarter-in-residence rule.

### **Grades and Academic Honesty**

Grades are given for the student's work and achievement. Fair evaluation of students' work and helpful instruction are possible only when students submit work which genuinely reflects their own reading, computation, research and thoughts and is their own production, whether in writing or other format(s). Academic dishonesty can result in a failing grade and the placement of a note in the student's permanent record. For the University's policy on academic honesty, see Appendix D in the Appendices section of this catalog.

### **Grade Averages (GPA)**

To determine a grade average, points are assigned to each grade earned under the A-F grading system (A = 4.00, B = 3.00, et cetera. See A-F Grading). The point value of each grade is multiplied by the number of credits assigned to the course. Total points are then divided by total credits attempted. Thus, a student who earns a five-credit A, five-credit B and a five-credit F has earned a quarterly average of 2.33 (35 points divided by 15 credits attempted).

A grade average of 2.00 (C) represents the minimum acceptable level of performance to remain in good standing at the University. Higher grade averages may be required for admission to or retention in certain major programs.

Only grades earned at Western are calculated in determining a student's quarterly or cumulative grade average.

Grades of S, U, P, NP, AUD, K, X, W, XM, YP, YN, YK and SW are not included in GPA calculation.

### **Grades Yielding Credit**

Credit is granted for courses completed with grades of D- or higher on the A-F grading system and for grades of P and S. The grades of D+, D and D-, however, represent a level of work that is unacceptable in a student's major or minor, supporting courses for majors and minors, ENG 101, and the courses that satisfy a student's upper-division writing proficiency requirement. Professional education courses required for teacher education programs and courses required for state teaching endorsements must be completed with a grade of C (2.0) or better.

### **Repeating a Course**

A few courses are approved to be repeated for credit. Such approval is included with the course descriptions in this catalog. If a course not designated as repeatable for credit is retaken, the following will apply:

- Credit will be awarded only once for a repeated course
- All grades earned for a given course will be considered in calculation of the student's cumulative grade average and all grades remain on the record; a failing grade assigned subsequent to earning a passing grade in a repeated course will nullify the credit earned initially with the passing grade

## UNIVERSITY ACADEMIC POLICIES

- Students wishing to repeat a class in which they already received a P, S, or C- or better grade may not register for the class until Phase III of registration. Students, in this circumstance, who register for a repeated course prior to Phase III may be required to drop the course by the academic department or Registrar's Office. The repeat registration for English composition prior to Phase III requires the written permission of the chair of the department.

Please note that Western's registration system will not prevent a student from registering for a course in which the student has already received credit therefore students are responsible for ensuring they do not repeat courses unintentionally.

Also note that departments may require Graduate students to repeat a course in order to attain an acceptable level of competence. The rules above apply to any repeated course. Graduate students should review the Scholarship Standards under the Graduate School section of the catalog.

### Final Grades

Final grades are assigned at the end of each quarter and are available to students on Web4U. An accurate representation of final grades, quarterly and cumulative grade point averages, credit completion totals and academic standing does not occur until 4-5 business days after final examination week.

### Grade Changes

Once a grade has been filed with the Registrar, it is regarded as final. Except for the conversion of incomplete (K) marks, grade changes are accepted only under the following circumstances:

It is discovered that the grade resulted from clerical error in transcription or recording. Requests for change to correct these errors must be made in writing to the Registrar by the course instructor and only during the quarter immediately following original issuance of the grade.

The Registrar may be instructed to change a grade as the result of the academic grievance procedure.

The Registrar may be instructed to change a grade if it is determined that the grade resulted from academic dishonesty.

### Fresh Start

A former Western undergraduate student who returns to the University after an absence of five years or more may be given permission to start a new cumulative grade average. To be eligible, the student must be returning to Western as an undergraduate and cannot have taken any Western courses (including extension, correspondence, and cyber) during the five-year absence. The absence begins from the last day of the quarter of previous enrollment.

The Fresh Start application deadline is the end of the first week of the quarter in which the student returns.

***The application should be submitted to the Registrar's Office.*** Students who have been dropped for low scholarship, even if absent for five years or more, must pursue reinstatement. See Reinstatement section below.

Undergraduates who might be considering applying for the master's degree at WWU should contact the Graduate School office for information about the implications of having been given an undergraduate Fresh Start.

Post-baccalaureate students and students in graduate programs are not eligible for Fresh Start. An undergraduate student can be granted only one Fresh Start.

### Scholarship Standards

The following scholarship standards apply to each academic division of Western Washington University, except Fairhaven College. Students should note that transfer between academic divisions is restricted in cases of low scholarship.

Low- and high-scholarship standings are not changed as a result of the removal of incomplete (K) grades and late grades received in correspondence courses.

**Good Academic Standing**

A student is in good academic standing if he or she has a cumulative grade point average that is not below 2.00.

**High Scholarship****Graduation Honors**

Graduation ***cum laude or magna cum laude*** is possible from those colleges of Western Washington University which employ the A-F grading system: College of Business and Economics, College of Fine and Performing Arts, College of Humanities and Social Sciences, Huxley College of the Environment, College of Sciences and Technology, and Woodring College of Education, and University Interdisciplinary Programs. Fairhaven College of Interdisciplinary Studies, which employs a different grading system, may develop alternate ways to honor outstanding graduates, subject to approval of the Academic Coordinating Commission.

The Graduate School does not confer graduation honors on graduate students although some graduate programs recognize meritorious graduate students.

To be eligible for ***cum laude or magna cum laude*** status upon graduation, the student must have earned at least 90 credits from Western Washington University, at least 65 of which must be for courses completed under the A-F grading system while in junior or senior standing. Only students who earn a first bachelor's degree are eligible for graduation honors.

Within each division which awards ***cum laude or magna cum laude*** status upon graduation, the determining factor in granting such distinction shall be based on the honors grade average. The honors grade average is computed using only the grades earned at Western Washington University after the quarter in which the student attains junior standing, but excluding grades in courses subsequently repeated and excluding all grades earned prior to approval of a "fresh start" grading average.

***Magna cum laude*** shall be awarded to each student whose honors grade average places him or her at the 97th percentile or higher among graduating seniors from their college during the previous academic year. Cum laude shall be awarded to each student whose honors grade average places him or her from the 92nd through 96th percentiles among graduating seniors from their college during the previous academic year. To receive honors recognition at Western's commencement exercises, it is necessary for a student to have qualified for honors by the end of the quarter prior to graduation.

**Quarterly President's List**

Each undergraduate student whose quarterly grade average places him or her at the 90th percentile or higher among students of the same class (freshman, sophomore, et cetera) shall be placed on the President's List. The term "honor roll" shall be affixed to the student's permanent academic record for that quarter. To be eligible for the quarterly President's List, a student must be enrolled officially in a division of Western Washington University which employs the A-F grading system and must complete at least 14 credits that quarter on the A-F grading system.

**Low Scholarship**

The University has set the standards described below to ensure that students who are earning low grades will examine their objectives carefully before continuing enrollment. In some cases, students will be dropped from the University. The standards are designed to ensure that a student will examine their objectives and seek assistance before grades deteriorate to the point that continued enrollment or admission to another college or university becomes impossible. In all cases involving low scholarship, students are encouraged to consult with the Academic Advising Center, their instructors, or major advisor.

The low scholarship categories below apply to all divisions of Western Washington University except Fairhaven College. (See the Fairhaven College section for that division's scholarship standards.) Students dropped from



## UNIVERSITY ACADEMIC POLICIES

one college division may not transfer to another college division without reinstatement by the Scholastic Standing Committee. These standards also apply to students enrolled in self-supporting courses.

### *Academic Warning*

A warning is issued to a first-quarter freshman or a first-quarter transfer student (who has not previously attended Western) whose grade average is below 2.00 and to any continuing student whose quarterly grade average is below 2.00 but whose cumulative grade average is 2.00 or higher.

### *Academic Probation*

Any student except a first-quarter freshman or first-quarter transfer student (who has not previously attended Western) whose cumulative grade average falls below a 2.00 is placed on academic probation. A student who begins the quarter on probation must earn at least a quarterly grade average of 2.00 to avoid academic dismissal (see below).

### *Continuing Probation*

A student who begins a quarter on probation and, during that quarter, earns a grade average of 2.00 or higher without raising his or her cumulative grade average to at least 2.00 is placed on continuing probation. The student must then improve his or her cumulative grade average to at least 2.00 or attain at least a 2.30 quarterly average during the next quarter of enrollment.

Students on probation or continuing probation who repeatedly withdraw or register for Pass/No Pass or Satisfactory/Unsatisfactory courses may have their registration privileges suspended by the Registrar.

### *Academic dismissal*

A student will be dropped from the University if he or she a) begins a quarter on probation and earns a quarterly grade average below 2.00 and fails to raise his or her cumulative grade average to at least 2.00 or b) begins a quarter on continuing probation and earns a quarterly grade average below 2.30 and fails to raise his or her cumulative grade average to at least a 2.00.

Under unusual circumstances involving consistent patterns of course withdrawal or course repeats, a student whose cumulative grade average is 2.00 or higher may be dismissed from the University. The provost may authorize dismissal in these unusual cases after reviewing records presented by the Registrar.

A student who has been dismissed for low scholarship should contact the Academic Advising Center in Old Main 380 for advising and the petition process. The student may enroll only in Summer Session, or independent and online courses through Western. Coursework through these programs does not guarantee future reinstatement as a degree candidate. See also the Reinstatement section below for more details

*Removal from probation* occurs at the end of a quarter during which a student has improved his or her **cumulative** grade average to 2.00 or higher.

## **Reinstatement**

Students who have been dismissed for low scholarship and want to return to Western should contact the Academic Advising Center in Old Main 380 and schedule an appointment to meet with an advisor. Students who succeed in gaining reinstatement have earned strong grades in coursework taken since dismissal, established strong study skills, overcome personal challenges that previously interfered with their studies and have clearly defined, realistic academic goals.

Students who have been dismissed for low scholarship can seek reinstatement (but not for the quarter immediately following the quarter of dismissal). For the petitioning process and additional information, go to <http://www.wvu.edu/advising/>. The Scholastic Standing Committee has the responsibility of determining reinstatement.

## **Academic Honesty Policy**

Academic dishonesty is not tolerated at Western Washington University. A student commits an act of academic dishonesty when he or she participates in representing work of their own when in fact it is the work of another. A Western student charged with academic dishonesty may face significant repercussions such as failure of the assignment and course and possibly dismissal. All acts of academic dishonesty are on record in the Registrar's Office and the office of the Provost. Students do have the right to due process and may appeal

a charge of academic dishonesty. For a full description of the academic honesty policy and procedures at Western, see Appendix D in the Appendices section of this catalog.

### **Academic Grievance Policy**

The text and procedures of Western's Academic Grievance Policy are contained in Appendix F in the Appendices section of this catalog.

### **Satisfactory Academic Progress for Financial Aid**

The text of Western's policy on Satisfactory Academic Progress for Financial Aid is contained in Appendix J in the Appendices section of this catalog.

### **Family Educational Rights and Privacy Act**

The Family Educational Rights and Privacy Act (FERPA), passed by Congress in 1974, protects the confidentiality of student records against disclosure to third parties and guarantees access to those records by the student. FERPA allows the university to release certain "directory information", which may include the student's name, local address and phone number, whether the student is enrolled, dates of attendance, degrees earned, and most recent previous institutions attended. However, Western Washington University is more restrictive, releasing to third parties only whether the student is currently enrolled, dates of attendance, and degrees awarded. For students who have requested a confidential block through the Registrar's Office, no information is disclosed, not even whether the student is enrolled.

When a student enrolls in a postsecondary institution, rights of access are transferred from the parents to the student. Thus parents who wish to have access to their students' educational information must present a written, signed and recently dated consent from their student for each request.

Western students have 24 hour computer access to their own educational record via Web4U and therefore students and parents are encouraged to dialogue about appropriate and respectful sharing of educational information within the context of their relationship and recognition of the adult standing of the student by the university.

Individuals whose work requires access, such as university faculty and staff and government officials who work to improve instruction, also are allowed by FERPA to view student records.

For more complete information about FERPA and Western's Student Records Policy, see Appendix E in the Appendices section of this catalog.

### **Student Records Policy**

For the complete text of this policy, see Appendix E in the Appendices section of this catalog.

# University Graduation Requirements

## Student Responsibility for Completion of Requirements

Every effort is made by the University to notify students of degree requirements. However, it is the student's responsibility to become familiar with all requirements upon entry to the University.

## WWU Graduation Requirements for Bachelor's Degrees

### *Effective Catalog*

A student should expect to graduate according to the general requirements in the catalog current at the time of initial matriculation. However, if the student interrupts enrollment for more than two consecutive quarters (summer quarter not included), he or she shall meet the demands of the catalog in force at the time of readmission. Correspondence enrollment is defined as interrupted enrollment.

While the University reserves the right to change the regulations concerning admission and requirements for graduation, it shall be the policy of the University to give adequate notice prior to effecting any significant changes and to make reasonable adjustments in individual cases where there may be a hardship.

### *Declaring a Major*

Students should expect to meet the specific requirements for majors and minors in the catalog current at the time they declare the major and minor to the appropriate department. Early declaration of a major is essential to graduating in a timely manner. Soon after their arrival at Western, students should contact a departmental advisor to discuss the course of study leading to a major. Students are expected to meet with the advisor of the department of their choice for individualized assessment or visit the Academic Advising or Career Services centers regarding choice of a major by the time they complete 60 credits or during the first quarter of enrollment if 60 or more credits are being transferred to Western. Students are expected to apply to the department in which they wish to declare a major no later than the quarter following the quarter in which they reach their 90th credit. Students who fail to declare a major by the time they reach 105 credits will not be permitted to register.

Students must submit a new major declaration if they interrupt enrollment for more than one year or are dropped for low scholarship.

### *Minors*

Minors are available in most major disciplines but students are not required to complete a minor, unless a minor is required by the major. Requirements for each minor are listed in each department's section. To declare a minor, a student should contact the department. Although there is no limit on the number of minors a student may earn, it is not possible to minor in areas with more than a 50% overlap of credits applied to the minors. NOTE: Minors may only be earned by students who have completed a baccalaureate degree at Western Washington University.

### *Common Requirements*

The following requirements are common to all undergraduate divisions of Western Washington University. For requirements unique to a given University division, see sections concerning the College of Business and Economics, Fairhaven College of Interdisciplinary Studies, the College of Fine and Performing Arts, the College of Humanities and Social Sciences, Huxley College of the Environment, the College of Sciences and Technology, University Interdisciplinary Programs, and Woodring College of Education.

- **Minimum of 180 quarter credits.** Western Washington University's baccalaureate degrees require a minimum of 180 credits. Some fields require a larger number of credits, and students who major in these fields should anticipate that they may require more than four years to complete their programs. Students majoring in these fields are encouraged to seek advisement early in their academic careers.

Also, programs that are highly sequential necessitate careful planning, the lack of which may result in extended work beyond the minimum required. Western allows a maximum of 135 quarter (90 semester) credits to transfer from any combination of regionally accredited institutions, including no more than 105 quarter (70 semester) lower-division credits. Additional course work which exceeds this amount may be used to meet specific requirements but additional credits will not be allowed to count toward the 180 credit requirement for graduation; no more than 15 credits taken in the Extended Education (EXT) subject area can be applied toward a degree at Western Washington University

- **Minimum of 45 credits earned through Western Washington University courses.** Credit by examination and advanced placement credit are not included in this total
- **At least 60 credits in upper-division study** (courses 300-level or above at the institution where the course was taken)
- **Complete a minimum of three upper-division writing proficiency points in approved upper-division writing proficiency courses at WWU** with a minimum grade of C-.
- **General University Requirements** - These general requirements must be satisfied by all students except those enrolled in Fairhaven College of Interdisciplinary Studies, where a separate core program is required
- **Approved academic major.**
  - At least 50 percent of the credits required in a student’s major must be earned at Western Washington University
  - Students must declare a major before reaching 105 credits
- **A minor, if required by the major**
  - At least 50 percent of the credits required for a minor must be earned at Western Washington University
- **Professional education sequence, if required by the major**
- **A grade of C- or better in a student’s major or minor**, supporting courses for majors and minors, ENG 101, and courses taken to fulfill the upper-division writing proficiency requirement
- **A grade of C (2.0) or better is required for professional education courses** required for teacher education programs and courses required for state teaching endorsements.
- **Scholarship meeting minimums** prescribed by the University divisions and academic departments, including a cumulative WWU GPA of at least 2.00 (or higher, as required by individual departments)
- **Final quarter.** Must be registered for at least one Western course in the quarter in which degree is to be awarded.
- **Submit an application for the degree** following published deadlines. The degree is not granted without formal application.

## Curriculum Advising and Program Planning (CAPP) - Online Degree Evaluation

Curriculum, Advising, and Program Planning (CAPP) Degree Evaluation is an advising tool available to both students and advisors that evaluates course work against degree requirements. CAPP produces a report reflecting academic progress toward completion of an undergraduate or graduate degree in a student’s declared or proposed major. The CAPP degree evaluation report shows how Western Washington University courses, transfer courses, and courses in progress apply toward degree requirements. You can initiate a degree evaluation, view results, and print evaluation reports via Web4U.

Visit the Online Degree Evaluation website for additional information.

# UNIVERSITY GRADUATION REQUIREMENTS

## **Extension Program Time Limits**

All graduation requirements for an extension program must be completed within five years of the initial quarter of registration. Students who have not completed their program after four years of study are required to file a plan for completion of the degree within the five-year limit. Otherwise it is understood that the student has decided to withdraw from the program.

## **Procedures for Applying for a Bachelor's Degree**

Degrees are not automatically awarded when requirements are completed. It is the responsibility of the student to make application in the Registrar's Office. Students must apply for a baccalaureate degree no later than the last day of classes two quarters prior to the final quarter. Complete instructions and deadlines are available on the Registrar's Office Website.

## **Procedures for Applying for a Residency Teacher Certificate**

Teaching certificates are not automatically issued at program completion. It is the responsibility of the student to apply for the Residency Teacher Certificate through the Woodring College of Education Certification Office by the due date approximately two quarters before the start of full-time student teaching internship. Upon verification that certification requirements have been met, recommendation is made to the state Office of Superintendent of Public Instruction for issuance of the Residency Teacher Certificate.

Complete application instructions and deadlines are available at

<http://www.wce.wvu.edu/Resources/Certification/Res/> or Certification Office, Woodring College of Education Student Services, Miller Hall 150, and through applicable extension program offices.

## **Commencement**

Formal commencement exercises for degree candidates are held each quarter on the Saturday following finals week. Commencement information and signup forms are available by the third week of the quarter on the Registrar's Office website. To be eligible for commencement, all candidates must apply for their degree by the appropriate deadline. University policy requires bachelor's degree candidates to be enrolled in their final quarter's requirements and master's candidates to have completed all requirements in order to participate in commencement.

## **Baccalaureate Degrees with Two Majors**

Any undergraduate student at Western Washington University may attempt to earn a bachelor's degree with two majors. While there is no requirement that such a degree program include more than 180 credits, it may be impossible to complete within this minimum. The student's application for such a degree must indicate both majors and be approved by both departments or academic units involved. The majors involved must be distinct and may not be based on more than a 50% overlap of credits applied to both majors. A general studies major cannot be earned concurrently with or subsequent to another major.

After earning a bachelor's degree, a student may complete an additional major without earning a second bachelor's degree. The student must submit a major declaration card and an application for an additional major to the Registrar's Office.

Students with two majors that would result in the same type of degree (for example, a bachelor of arts in English and a bachelor of arts in business) will receive one degree and one diploma. Since the diploma indicates the college awarding the degree, students must choose the college they prefer. In this example, the student must choose between a bachelor of arts from the College of Humanities and Social Sciences or a bachelor of arts from the College of Business and Economics. Majors are not printed on the diploma but are listed on the transcript once the student graduates.

## More than One Baccalaureate Degree

A student may earn from Western only one of each type of degree offered (BA, BS, BAE, BFA, BMus).

### *Two Baccalaureate Degrees Concurrently*

Two distinct bachelor's degrees associated with different majors may be earned at Western simultaneously. The student must follow the admission and declaration process for each degree program and satisfy all requirements of each degree program. The majors involved may not be based on more than a 50% overlap of credits applied to both majors.

### *Second Baccalaureate Degree from WWU*

A student who has already earned a baccalaureate degree from Western Washington University may apply for readmission to earn a different type of undergraduate degree associated with a different major. Such a student must:

- Submit a major declaration card
- Meet scholarship minimums prescribed by the University divisions and academic departments, including a cumulative WWU GPA of at least 2.00 (or higher, as required by individual departments)
- Earn at least 50% of the credits for the major at Western Washington University
- A grade of C- or better must be earned in all major courses.
- Earn at least 45 WWU academic credits beyond the number earned when the first degree was granted.\*\* Credit by examination and advanced placement credit are not included in this total.
- Be registered for at least one Western course in the quarter in which the degree is to be awarded.
- Satisfy all requirements of the second degree program

**\*\*Exception:** *The BFA in art degree or the BFA in design degree may be awarded to a student who has earned fewer than 45 additional credits since completing a BA degree.*

### *Post-Baccalaureate Degree Requirements for Transfer Students*

- **GUR**  
Holders of a bachelor's degree from a United States institution accredited by the Regional Associations of Schools and Colleges will have fulfilled all General University Requirements. Holders of foreign degrees will have the degree evaluated for GUR on a course-by-course basis.
- **Residency**  
45 credits minimum must be earned through Western Washington University, including final-quarter-in-residence. Credit by examination and advanced placement credit are not included in this total.
- **Major**  
At least 50% of the credits earned for a major must be earned at Western Washington University  
A grade of C- or better must be earned in all major courses. Note: A post-baccalaureate transfer student cannot earn a major at Western that is associated with any previously-earned degree.
- **Minor**  
A minor is not required for the degree unless it is required by the major. At least 50% of the credits earned for a minor must be earned at Western Washington University.  
A grade of C- or better must be earned in all minor courses. Note: A post-baccalaureate transfer student cannot earn a minor at Western that is associated with any previously-earned degree. A minor cannot be posted to the official transcript unless a bachelor's degree is earned from Western Washington University.
- **Writing Proficiency**  
Holders of a bachelor's degree from a United States institution accredited by the Regional Associations of Schools and Colleges will have fulfilled the writing proficiency requirement. Holders of foreign degrees must complete a minimum of three writing proficiency points in approved upper-division writing proficiency courses at WWU with a minimum grade of C-.

# UNIVERSITY GRADUATION REQUIREMENTS

- **GPA**

Scholarship meeting minimums prescribed by the University divisions and academic departments, including a cumulative WWU GPA of at least 2.00 (or higher, as required by individual departments).

## *Baccalaureate Degree After Graduate Studies at WWU*

A student may not earn a baccalaureate degree from Western Washington University while enrolled in its Graduate School. A student may earn a baccalaureate degree after the completion of the master's degree program provided: 1) all requirements listed under "Post-Baccalaureate Degree Requirements for Transfer Students" are met and 2) that 45 credits are earned at Western subsequent to the previous bachelor's degree and exclusive of those credits that are a part of the master's program.

## **Baccalaureate Degree and Teacher Certification**

The prospective teacher may earn the Bachelor of Arts in Education degree, completing one or more of the appropriate teaching majors offered within the various schools, colleges and departments of Western. Three majors delivered through the Woodring College of Education offer non-certification options for students who are preparing to work in community agencies rather than public schools. The student (usually with plans to teach at the secondary school level) who wishes to complete an appropriate Bachelor of Arts or Bachelor of Science degree program may also earn teaching credentials without earning the BAE degree. Some programs allow requirements for teacher certification to be completed at the same time the BA or BS degree is earned. Such students must be admitted officially to the professional education program of the Woodring College of Education and complete the required professional sequence.

## **Writing Requirements at Western Washington University**

Western Washington University believes that development of writing proficiency should be pursued systematically throughout the course of study. To that end Western has established a program of writing courses and support services beginning in the freshman year and extending to upper-division writing proficiency courses offered throughout the University.

### *GUR Writing Requirement*

- Block A of the GUR communications requirement: to be completed, with a grade of C- or better, prior to the accumulation of 45 credits; ENG 101, Writing and Critical Inquiry, (5), (waived for students demonstrating high English competency on college entrance exams and CEEB Advanced Placement English exams).
- Block B or C of the GUR communications requirement: to be completed prior to accumulation of 135 credits; see the GUR section for details.

### *Upper-division Writing Proficiency Requirement*

- Upper-division writing proficiency requirement: complete a minimum of three writing proficiency points in designated upper-division Writing Proficiency courses at WWU with a minimum grade of C-. Students must complete Block A of the Communication GUR requirement before enrolling in a Writing Proficiency course.

All Western Writing Proficiency courses should follow these University-wide guidelines:

- students have opportunities to write multiple drafts of assigned papers
- students receive suggestions for revision, and
- instructors assign course grades based on assigned writings according to the writing proficiency points table

Upper-division writing proficiency courses emphasize research and writing. In writing proficiency courses, students learn the writing style and conventions of their disciplines, as well as the techniques for integrating evidence into scholarly papers. Writing proficiency courses are listed in the online Timetable of Classes.

Students unable to enroll in designated WP courses may be able to satisfy the requirement, with faculty endorsement, by submitting an "Alternative Writing Proficiency Course Agreement" through the Writing Instruction Support Program.

<b>Writing Proficiency Points Fulfilling the Upper-division Writing Proficiency Requirements (Minimum 3 points required)</b>		
	Credits of course	% of Grade Based on Writing Assignments
WP1 (1 pt)	1 Credit	75%
	2 Credits	50%
	3 Credits	25%
	4 Credits	20% (18.75%)
	5 Credits	15%
WP2 (2 pts)	2 Credits	75%
	3 Credits	50%
	4 Credits	40% (37.5%)
	5 Credits	30%
WP3 (3 pts)	3 Credits	75%
	4 Credits	55%
	5 Credits	45%

### **General University Requirements (GURs) at Western Washington University**

The General University Requirements (GURs) embody Western's belief that liberal education - education in breadth - is as important for informed and effective participation in contemporary life as specialized education. Western believes that liberal education enables people to lead fuller and more interesting lives, to perceive and to understand more of the world around and within themselves, and to participate more intelligently, sensitively and deliberately in shaping that world. This belief reflects a long tradition in American higher education. In this tradition, the bachelor's degree includes specialized study, the major, together with study over a range of human inquiry, expression and accomplishment. Broadly, the liberal education component of a bachelor's degree deals with issues of truth and falsity, with expressions of what is possible for humans to do and be, with things that bear on choices that we make about what in life we consider important. This broader study helps people gain perspective on who they are and what they do in the world.

The program is designed to develop academic competencies and perspectives that give students the ability to:

- Analyze and communicate ideas effectively in oral, written, and visual forms
- Analyze and interpret information from varied sources, including print and visual media
- Use quantitative and scientific reasoning to frame and solve problems
- Identify and analyze complex problems
- Apply tools of technology, with an understanding of their uses and limitations
- Explore, imagine and create
- Recognize the rights, responsibilities, and privileges of participating in, and contributing as a citizen in, a diverse society
- Understand and evaluate assumptions, values, and beliefs in context of diverse local, national and global communities
- Work collaboratively and manage projects to effective completion
- Reflect on one's own work and on the ethical dimensions of academic pursuits
- Understand and assess the impacts of interactions among the individual, society, and the environment

The General University Requirements apply to all students in the College of Humanities and Social Sciences, the College of Business and Economics, the College of Sciences and Technology, the College of Fine and Performing Arts, Woodring College of Education, and Huxley College of the Environment. Students enrolled in Fairhaven College of Interdisciplinary Studies, see the Fairhaven College section of the University catalog for requirements.



# UNIVERSITY GRADUATION REQUIREMENTS

## *Exceptions*

- Students transferring to Western with a Washington community college Direct Transfer Agreement Associate Degree.
- Students transferring to Western from another Washington state public baccalaureate institution whose General University Requirements were completed at the sending institution, provided the sending institution so certifies.

## **Four-Course Maximum**

A maximum of four courses from any one department may be applied to the combination of Humanities; Social Sciences; and Comparative Gender and Multicultural Studies sections of the General University Requirements. (*Art and Art History are considered to be one department, as are all foreign languages.*)

## **Grades in GUR Courses**

Courses which are to apply to General University Requirements must be taken on an "A" through "F" grading scale, except for courses designated S/U grading. They may not be taken with pass/no pass grading. Except for ENG 101, which requires a C- or better, the minimum passing grade for a GUR course is D-.

## **Attributes**

Please note the use of GUR attributes in the online Timetable of Classes. Courses which qualify as General University Requirements are designated by the appropriate attribute (ACOM, BCOM, CCOM, QSR, HUM, SSC, ACGM, BCGM, LSCI, or SCI).

## **List of General University Requirements**

The detailed document containing the full General University Requirements for the 2013-14 academic year is available in the PDF format.

## **Transfer Credit to Satisfy GUR**

Transfer students from Washington state community colleges may satisfy the GUR by taking courses listed on the transfer admission section of Western's website.

Approved associate degrees from community colleges in Washington State may fulfill all General University Requirements. Students at community colleges who wish to satisfy the General University Requirements by earning an associate degree should check carefully with advisors, as only certain approved degrees will apply. To meet the GUR, an approved associate degree is normally earned prior to initial enrollment at Western (on or off campus) as a transfer student. If any student wishes to complete such a degree in order to have it satisfy the GUR at Western, it must be earned by the time the student has 1) completed 45 credits at WWU, or 2) one calendar year has passed from initial enrollment at WWU, whichever comes later. A student seeking an exception to the 45 credit limit or one calendar year timeline must petition the Registrar's Office for approval.

Western allows a maximum of 135 quarter (90 semester) credits to transfer from any combination of regionally accredited institutions, including no more than 105 quarter (70 semester) lower-division credits. Additional course work which exceeds this amount may be used to meet specific requirements, but additional credits will not be allowed to count toward the 180 credit requirement for graduation.

Completion of General University Requirements will be granted to transfer students from another Washington state public baccalaureate institution whose General University Requirements were completed and certified by the sending institution.

Students pursuing a second baccalaureate degree at Western after completing a bachelor's degree at another US regionally accredited institution will have fulfilled all General University Requirements.

**NOTE:** Certain programs may have admission standards which require the completion of the GUR prior to beginning study. Consult program advisors for details.

All degree-seeking students, on or off campus, must complete all other common requirements for baccalaureate degrees.

## **Scheduling of GUR Courses**

The first year's schedule ordinarily should investigate potential majors, explore subjects in which a student has little or no experience, sample the main fields represented in the GUR (humanities, social sciences, natural sciences), and meet basic requirements in writing and mathematics. Students who are interested in a particular major should begin the basic work of that major. Concurrently, they should use the GUR and other courses to investigate areas of potential interest besides that major. Students who are unsure about what their major will be should explore fields in which they are, or may become, interested, by taking introductory courses in those fields. Some GUR courses will serve this purpose. It is perfectly permissible, in this exploration, to take non-GUR courses also.

This strategy may be pursued in the sophomore year. By the third quarter of the sophomore year (more or less), students who take this approach should be ready to proceed in one of several majors, and will have also laid the basis for a liberal arts and science education.

It is strongly recommended that students continue the GUR into their junior and senior years, taking courses from the GUR list in which they have become interested, and also taking non-GUR electives. By doing this, students benefit from the interplay of "liberal" and "specialized" components of their education throughout their time at Western. A few majors require completion of the GUR before entering the major.

The student should study carefully the requirements of his or her major and the course descriptions before planning courses to satisfy the General University Requirements, as some required courses in the major may also apply to General University Requirements. If questions arise, the student should confer with a degree evaluator in the Registrar's Office, OM 230.



## GENERAL UNIVERSITY REQUIREMENTS (GURs) 2013-2014

The General University Requirements (GURs) embody Western's belief that liberal education—education in breadth—is as important for informed and effective participation in contemporary life as specialized education. Western believes that liberal education enables people to lead fuller and more interesting lives, to perceive and to understand more of the world around and within themselves, and to participate more intelligently, sensitively and deliberately in shaping that world. This belief reflects a long tradition in American higher education. In this tradition, the bachelor's degree includes specialized study, the major, together with study over a range of human inquiry, expression and accomplishment. Broadly, the liberal education component of a bachelor's degree deals with issues of truth and falsity, with expressions of what is possible for humans to do and be, with things that bear on choices that we make about what in life we consider important. This broader study helps people gain perspective on who they are and what they do in the world.

The General University Requirements apply to all students in the College of Humanities and Social Sciences, the College of Business and Economics, the College of Sciences and Technology, the College of Fine and Performing Arts, Woodring College of Education, and Huxley College of the Environment. Students enrolled in Fairhaven College of Interdisciplinary Studies, see the Fairhaven College section of the university catalog for requirements.

### EXCEPTIONS:

- 1) Students transferring to Western with a Washington community college DTA (Direct Transfer Agreement) Associate Degree.
- 2) Students transferring to Western from another Washington state public baccalaureate institution whose General University Requirements were complete at the sending institution, provided the sending institution so certifies.

### FOUR-COURSE MAXIMUM

A maximum of four courses from any one department may be applied to the combination of Humanities, Social Sciences, and Comparative, Gender and Multicultural Studies sections of the General University Requirements. (*Art and Art History are considered one department as are all foreign languages.*)

### GRADES IN GUR COURSES

Courses which are to apply to General University Requirements must be taken on an A through F grading scale, except for courses designated as S/U grading. They may not be taken with Pass/No Pass grading. Except for Eng 101, which requires a C- or better, the minimum passing grade for GUR courses is D- (Math courses must be passed with a grade of C- or higher if used as a prerequisite to another course).

### ATTRIBUTES

Please note the use of GUR attributes in the online Timetable. Courses which qualify as General University Requirements are designated by the appropriate attribute (ACOM, BCOM, CCOM, QSR, HUM, SSC, ACGM, BCGM, LSCI, or SCI).

### COMMUNICATION

The Communication requirement provides an opportunity to develop the literacies and skills needed to convey ideas effectively in a variety of contexts. This area includes courses in writing, speaking and information technology literacy, and aims to foster an ability to reason critically by analyzing situations and adapting messages to particular audiences in particular contexts. The ability to express ideas clearly, creatively, and correctly is fundamental to a quality undergraduate education, and essential for active participation in a democracy.

**Complete Block A and one course from either Block B or Block C.** Block A and Block C are writing courses.

**Block A – (ACOM)** ENGLISH (ENG) 101, Writing and Critical Inquiry (5). This course must be completed with a grade of C- or better. Requirement will be waived for students demonstrating high English competency on Advanced Placement (CEEB English score of 4) or college entrance exams (SAT Critical Reading 710/ACT English 28).

#### Block B – (BCOM):

- ◆ **COMMUNICATION (COMM)**
  - 101–Fundamentals of Speech (4)
  - 224–Small Group Processes (4)
  - 235–Exposition and Argumentation (4)
- ◆ **COMPUTER SCIENCE (CSC)**
  - 102–Computer-Mediated Communications (3)
- ◆ **EDUCATION (EDUC)**
  - 309–Storytelling: Oral Narrative in History, Culture, and Society (4)
- ◆ **ENGLISH (ENG)**
  - 202–Writing About Literature (5)
- ◆ **JOURNALISM (JOUR)**
  - 207–Newswriting (4)
- ◆ **MODERN AND CLASSICAL LANGUAGES**
  - Arabic (ARAB)**
    - 103–Elementary Arabic (5)
    - 201–Intermediate Arabic (5)
  - Chinese (CHIN)**
    - 103–First-Year Chinese (5)
    - 201–Second-Year Chinese (5)
  - French (FREN)**
    - 103–Elementary French (5)
    - 104–Review of Elementary French (5)
    - 201–Intermediate French (5)
  - German (GERM)**
    - 103–Elementary German: Language, Communication & Culture (5)
    - 104–Review of Elementary German: Language, Communication & Culture (5)
    - 201–Intermediate German: Language, Communication & Culture (4)
  - Greek (GREK)**
    - 103–Elementary Greek (5)
    - 201–Intermediate Greek I (4)
    - 202–Intermediate Greek II (4)
  - Japanese (JAPN)**
    - 103–First-Year Japanese (5)
    - 104–Review of Elementary Japanese (5)
    - 201–Second-Year Japanese (4)

### ◆MODERN AND CLASSICAL LANGUAGES (continued)

- Latin (LAT)**
  - 103–Elementary Latin (5)
  - 201–Intermediate Latin (4)
- Russian (RUSS)**
  - 120–Elementary Russian 2 (5)
  - 201–Intermediate Russian I (5)
- Spanish (SPAN)**
  - 103–Elementary Spanish (5)
  - 104–Review of Elementary Spanish (5)
  - 201–Intermediate Spanish (5)

### ◆NURSING (NURS)

- 301–Information Literacy to Support Academic Discourse (5)

### ◆PHILOSOPHY (PHIL)

- 107–Logical Thinking (3)

### Block C – (CCOM):

- ◆ **ART HISTORY (A/HI)**
  - 275–Introduction to Writing and Critical Thinking (5)
- ◆ **COMMUNICATION (COMM)**
  - 322–Civil Discourse as Learning Interaction (4)
- ◆ **DANCE (DNC)**
  - 231–Introduction to Dance in Western Cultures (3)
- ◆ **ENGLISH (ENG)**
  - 201–Writing in Humanities (5)
- ◆ **LIBERAL STUDIES (LBRL)**
  - 340–Sufism: The Islamic Mystical Tradition (4)
- ◆ **LIBRARY (LIBR)**
  - 201–Introduction to Research Strategies (4)
- ◆ **WOMEN STUDIES (WMNS)**
  - 212–Feminist Theory and Expression (4)

### OR—Complete Block A and one of the following sets:

- ◆ **HONORS (HNRS)**
  - 103, 104, 105 (4 ea) or
  - 103, 104, 106 (4 ea)

### QUANTITATIVE AND SYMBOLIC REASONING (QSR)

Quantitative and symbolic reasoning is the ability to distinguish situations in which numerical or symbolic information is relevant, and to decide how to analyze and present numerical or symbolic information to reach valid conclusions. Specifically, a symbolic reasoner has the ability to understand the logic and validity of an argument through analyzing the relationships between/among components, connections and contingencies. An accomplished quantitative and symbolic reasoner has a sense of the relative size of numbers, is able to read and present graphs and charts, can decide whether an argument involving data is valid, understands the language of variable and relations, and understands how to model situations in order to make decisions and predictions.

Initial enrollment in beginning mathematics courses is based upon the results of the Math Placement Tests (*tests that show a student is ready to begin the study of a subject*). These tests must be taken prior to registration. Refer to the Mathematics Department for more information on academic placement and advanced standing.

# GENERAL UNIVERSITY REQUIREMENTS

All students must complete the QSR Requirement by accumulation of 90 credits.

**Complete one of the following options:**

**Option 1:**

**MATH 107**—Mathematical Reasoning and Its Applications (4) **and one course from:**

- ◆ **ANTHROPOLOGY (ANTH)**  
335—Quantitative Methods in Anthropology (5)
- ◆ **COMPUTER SCIENCE (CSCI)**  
103—Introduction to Computer Game Development (4)  
172—Introduction to Robotics (4)
- ◆ **ENVIRONMENTAL STUDIES (ENVS)**  
201—Understanding Environmental Data and Information (3)
- ◆ **MANAGEMENT (MGMT)**  
201—Introduction to Business (4)
- ◆ **MATH (MATH)**  
112—Functions and Algebraic Methods (5)
- ◆ **PHILOSOPHY (PHIL)**  
102—Introduction to Logic (3)
- ◆ **SOCIOLOGY (SOC)**  
304—Statistics for Sociology (5)

**Option 2:**

**MATH 112**—Functions and Algebraic Methods (5) **and one course from:**

- ◆ **ANTHROPOLOGY (ANTH)**  
335—Quantitative Methods in Anthropology (5)
- ◆ **COMPUTER SCIENCE (CSCI)**  
103—Introduction to Computer Game Development (4)  
172—Introduction to Robotics (4)
- ◆ **ENVIRONMENTAL STUDIES (ENVS)**  
201—Understanding Environmental Data and Information (3)
- ◆ **MANAGEMENT (MGMT)**  
201—Introduction to Business (4)
- ◆ **MATH (MATH)**  
107—Mathematical Reasoning and Its Applications (4)
- ◆ **PHILOSOPHY (PHIL)**  
102—Introduction to Logic (3)
- ◆ **SOCIOLOGY (SOC)**  
304—Statistics for Sociology (5)

**Option 3:**

**One transfer course with an MPAR attribute and one course from:**

- ◆ **ANTHROPOLOGY (ANTH)**  
335—Quantitative Methods in Anthropology (5)
- ◆ **COMPUTER SCIENCE (CSCI)**  
103—Introduction to Computer Game Development (4)  
172—Introduction to Robotics (4)
- ◆ **ENVIRONMENTAL STUDIES (ENVS)**  
201—Understanding Environmental Data and Information (3)
- ◆ **MANAGEMENT (MGMT)**  
201—Introduction to Business (4)
- ◆ **MATH (MATH)**  
112—Functions and Algebraic Methods (5)
- ◆ **PHILOSOPHY (PHIL)**  
102—Introduction to Logic (3)
- ◆ **SOCIOLOGY (SOC)**  
304—Statistics for Sociology (5)

**Option 4:**

**One course from:**

- ◆ **MATH (MATH)**  
114—Precalculus I (5)  
115—Precalculus II (5)  
118—Accelerated Precalculus (5)  
124—Calculus and Analytic Geometry I (5) (*Only one of Math 124 and Math 134 may be taken for credit*)  
134—Calculus I Honors (5) (*Only one of Math 134 and Math 124 may be taken for credit*)  
156—Algebra With Applications to Business and Economics (4)  
157—Calculus With Applications to Business and Economics (4)  
240—Introduction to Statistics (4)
- ◆ **COMPUTER SCIENCE (CSCI)**  
138—Programming Fundamentals in Visual Basic (4)  
139—Programming Fundamentals in Python (4)  
140—Programming Fundamentals in C++ (4)  
141—Computer Programming I (4)  
145—Computer Programming and Linear Data Structures (4)

**Option 5:**

**One transfer course with an MSAT attribute**

**Option 6:**

**BAE-Elementary Education students only:**

- ◆ **MATH (MATH)**  
381—Teaching K-8 Mathematics I (4) *and*  
382—Teaching K-8 Mathematics II (4)

## HUMANITIES (HUM)

The Humanities requirement provides an introduction to the subject matter, methods of inquiry and forms of expression of academic fields that treat language, literature, fine arts, history, philosophy and religion in the Western cultural tradition. The humanities study principal themes, issues and images concerning human beings and their place in the universe, as these have been shaped and expressed since ancient times, in thought, imagination and action.

**Complete one of the following options:**

**Option 1: Complete 3 courses from at least two departments;  
12 credits minimum**

- ◆ **ART (ART)**  
109—Visual Dialogue (3)
- ◆ **ART HISTORY (A/HI)**  
220—Visual Culture in Ancient Greece and Rome (3)  
221—Visual Culture in Medieval Europe (3)  
230—Visual Culture in Western Europe 1400-1550 (3)  
231—Visual Culture in Western Europe 1550-1700 (3)  
240—Visual Culture in Western Europe in the 19th Century (3)  
241—Visual Culture in Western Europe and America in the 20th Century (3)
- ◆ **CLASSICAL STUDIES (CLST)**  
117—The Ancient Legacy (5)  
260—Masterworks of Ancient Greek Literature (4)  
270—Literature of Rome and Her Empire (4)  
350—Greek Mythology (4)
- ◆ **DANCE (DNC)**  
108—Introduction to the Fine Arts: the Classics (3)  
230—Making Movement Art (3)
- ◆ **DESIGN (DSGN)**  
111—Design View (3)  
211—Foundations of Visual Communication (3)
- ◆ **ENGLISH (ENG)**  
214—Introduction to Shakespeare (5)  
215—Introduction to British Literature (5)  
216—Introduction to American Literature (5)  
238—Society Through Its Literature (5) (*May be taken only once for GUR credit*)  
270—Introduction to Language and Society (5)  
281—Introduction to Global Literatures: Ancient (5)  
282—Introduction to Global Literatures: Medieval (5)  
283—Introduction to Global Literatures: Modern (5)  
332—Literature and Philosophy (5)  
339—Mythology and Literature (5)
- ◆ **EURASIAN STUDIES (EUS)**  
201—Introduction to Russian Civilization (5)
- ◆ **HISTORY (HIST)**  
103—Introduction to American Civilization: American History to 1865 (5)  
104—Introduction to American Civilization: American History Since 1865 (5)  
111—Introduction to Western Civilization: Prehistory to 476 (5)  
112—Introduction to Western Civilization: 476-1713 (5)  
113—Introduction to Western Civilization: 1713 to Present (5)  
121—World History to 500 (5)  
123—World History, 1500 to the Present (5)  
131—Going to College in America (5)  
151—Communities of the Ancient World (5)  
152—Being Human (5)  
277—Canada: A Historical Survey (5)  
314—The American and European Enlightenment (5)
- ◆ **HONORS (HNRS)**  
103—Major Cultural Traditions I (4)  
104—Major Cultural Traditions II (4)  
201—Colloquium in Philosophy (4)  
205—Colloquium in History (4)
- ◆ **JOURNALISM (JOUR)**  
340—History of U.S. Journalism (4)
- ◆ **LIBERAL STUDIES (LBRL)**  
110—Confession and Self-Promotion: Autobiography from Augustine to the Blogosphere (5)  
121—The Western Tradition I: The Ancient World (5)  
122—The Western Tradition II: Medieval and Early Modern Europe (5)  
123—The Western Tradition III: The Modern World (5)  
232—Myth and Folklore (4)  
243—Art and Ideas (4)  
321—Between Renaissance and Inquisition: Censorship and Religious Conflict in Spain's Golden Age (5)  
323—The Romantic Paradox: Love, Life and Death (4)  
325—Surveillance, Voyeurism and the Culture of Suspicion (4)  
332—World Religions (5)  
333—Religion in America (5)  
336—New Testament and Early Christianity (5)
- ◆ **MODERN AND CLASSICAL LANGUAGES**  
**French (FREN)**  
202—Intermediate French (5)  
203—Intermediate French (5)

# GENERAL UNIVERSITY REQUIREMENTS

## ◆MODERN AND CLASSICAL LANGUAGES (continued)

### French (FREN)

- 301–Grammar Review (4)
- 302–Written Exposition (3)

### German (GERM)

- 202–Intermediate German: Language, Communication & Culture (4)
- 203–Intermediate German: Language, Communication & Culture (4)
- 301–High Intermediate German: Contexts & Culture (4)
- 302–Advanced German: Contexts & Cultures I (4)

### Latin (LAT)

- 202–Intermediate Latin (4)
- 203–Intermediate Latin (4)

### Portuguese (PORT)

- 304–Portuguese for Spanish Speakers (5)

### Russian (RUSS)

- 202–Intermediate Russian II (5)
- 203–Intermediate Russian III (5)
- 301–Third-Year Composition (3)
- 302–Third-Year Composition (3)

### Spanish (SPAN)

- 202–Intermediate Spanish (5)
- 203–Intermediate Spanish (5)
- 301–Grammar Review and Composition (4)
- 302–Grammar Review and Composition (4)

## ◆MUSIC (MUS)

- 104–The Art of Listening to Music (3)
- 105–Survey of Popular and Rock Music (3)

## ◆NURSING (NURS)

- 305–Social Justice and Healthcare (5)

## ◆PHILOSOPHY (PHIL)

- 112–Introduction to Philosophy: Moral Issues (3)
- 113–Introduction to Philosophy: Philosophy of Religion (3)
- 114–Introduction to Philosophy: Knowledge and Reality (3)
- 115–Environmental Ethics (3)
- 340–Philosophy of Science (3)
- 350–Political Philosophy (3) *(Only one of Philosophy 350 and Political Science 261 may be taken for GUR credit)*
- 355–Aesthetics and the Philosophy of Art (3)
- 360–Society, Law and Morality (3)

## ◆POLITICAL SCIENCE (PLSC)

- 261–Introduction to Political Theory (5) *(Only one of Political Science 261 and Philosophy 350 may be taken for GUR credit)*

## ◆RECREATION (RECR)

- 301–Work and Leisure Through the Ages (4)

## ◆THEATRE ARTS (THTR)

- 101–Introduction to the Art of the Theatre (3)
- 201–Introduction to the Cinema (3)
- 202–Film Genre (3) *(May be taken only once for GUR credit)*
- 380–Theatre History I (4)
- 381–Theatre History II (4)
- 382–Theatre History III (4)

## Option 2: Complete one of the following sets

- ◆LIBERAL STUDIES (LBRL) 121, 122, 123 (5 ea)
- ◆HISTORY (HIST) 111, 112, 113 (5 ea)

## SOCIAL SCIENCES (SSC)

The Social Sciences requirement provides an introduction to the content, methods and applications of academic fields that treat psychological, social, political and economic behavior, development and variation of human culture, and uses of geographical space. Though differing in subject and approach, the social sciences insist in common on empirical investigation and seek to discover coherent patterns in human activity.

### Complete 3 courses from at least two departments; 12 credits minimum

#### ◆ANTHROPOLOGY (ANTH)

- 102–Introduction to Human Origins (5)
- 201–Introduction to Cultural Anthropology (5) *(Only one of Anthropology 201 and Honors 203 may be taken for credit)*
- 210–Introduction to Archaeology (5)
- 247–Introduction to Linguistic Anthropology (5)

#### ◆CANADIAN-AMERICAN STUDIES (C/AM)

- 200–Introduction to Canadian Studies (5)

#### ◆ECONOMICS (ECON)

- 101–Markets and Society (4)
- 206–Introduction to Microeconomics (4)
- 207–Introduction to Macroeconomics (4)

#### ◆EDUCATION (EDUC)

- 109–Scholarship of Teaching and Learning (4)
- 115–Introduction to Contemporary Education Issues (4)

#### ◆ENVIRONMENTAL STUDIES (ENVS)

- 110–Ecogastronomy: The Art and Science of Food (2)
- 202–Introduction to Environmental Studies and Sustainability (3)
- 204–Human Geography (4)
- 240–Geography and World Affairs (2)
- 342–Geography of the World Economy (4)

#### ◆FAIRHAVEN (FAIR)

- 311B–The American Legal System (5). *(Only one of Fairhaven 311B, Management 271, Political Science 311 may be taken for GUR credit)*

- 312F–Globalizations since 1870 (5). *(Also taught as INTL 312)*

#### ◆FINANCE (FIN)

- 215–Personal Finance (4)

#### ◆HEALTH EDUCATION (HLED)

- 201–Perspectives of Human Lifestyle and Wellness (3)
- 210–Introduction to Public Health (4)

#### ◆HONORS (HNRS)

- 202–Colloquium in Economics (4)
- 203–Colloquium in Anthropology (4) *(Only one of Honors 203 and Anthropology 201 may be taken for credit)*
- 204–Colloquium in Psychology (4) *(Only one of Honors 204 and Psychology 101 may be taken for credit)*
- 206–Colloquium in Political Science (4) *(Only one of Honors 206 and Political Science 101 may be taken for credit)*
- 221 Interdisciplinary Colloquium in Science and Social Science (4)
- 252–Colloquium in Sociology (4)

#### ◆INTERNATIONAL STUDIES (INTL)

- 312–Globalizations Since 1870 (5). *(Also taught as FAIR 312F)*

#### ◆JOURNALISM (JOUR)

- 190–Introduction to Mass Media (5)

#### ◆LEADERSHIP STUDIES (LDST)

- 100–Leading Responsibly (2)
- 101–Introduction to Leadership Studies (5)

#### ◆LINGUISTICS (LING)

- 201–Introduction to Linguistics Science (5)
- 204–Sociolinguistics (4)

#### ◆MANAGEMENT (MGMT)

- 271–Law and the Business Environment (4) *(Only one of Political Science 311, Fairhaven 311B and Management 271 may be taken for GUR credit)*

#### ◆NURSING (NURS)

- 412–Policy, Leadership and U.S. Healthcare (5)

#### ◆POLITICAL SCIENCE (PLSC)

- 101–Government and Politics in the Modern World (5) *(Only one of Political Science 101 and Honors 206 may be taken for credit)*
- 250–The American Political System (5)
- 271–Introduction to International Relations (5)
- 291–Introduction to Comparative Politics (5)
- 311–Introduction to Law and Judicial Process (5) *(Only one of Political Science 311, Fairhaven 311B and Management 271 may be taken for GUR credit)*
- 372–International Political Economy (5).

#### ◆PSYCHOLOGY (PSY)

- 101–Introduction to Psychology (5) *(Only one of Psychology 101 and Honors 204 may be taken for credit)*
- 116–Human Sexuality (5)
- 117–The Psychology of Identity (5)
- 341–Psychology and Culture (5)

#### ◆SOCIOLOGY (SOC)

- 221–Introduction to Population Issues (5)
- 251–Sociology of Deviant Behavior (5)
- 255–Social Organization of Criminal Justice (5)
- 260–The Family in Society (5)

## COMPARATIVE, GENDER, AND MULTICULTURAL STUDIES (ACGM & BCGM)

Acquaintance with the values and viewpoints of a variety of cultures and societal roles helps overcome provincialism, aids self-understanding and is an important element in an educated outlook on the contemporary world.

### Complete 2 courses, one from Block A and one from Block B.

#### Block A—Primary emphasis outside North America and/or Europe.

*Provides an introduction to civilizations of Asia, Africa, the Middle East and Latin America.*

#### ◆ANTHROPOLOGY (ANTH)

- 362–Peoples of Asia (5)
- 365–Peoples of Latin America (5)

#### ◆ART HISTORY (A/HI)

- 270–Visual Culture in South and Southeast Asia (3)
- 271–Visual Culture in East Asia (3)

#### ◆DANCE (DNC)

- 232–Movement and Culture (3)

#### ◆EAST ASIAN STUDIES (EAST)

- 201–Introduction to East Asian Civilizations (5) *(Also taught as HIST 280)*
- 202–East Asian History in the Early-Modern and Modern Eras (5) *(Also taught as HIST 281)*
- 230–Modern Chinese Society and Language (3)

# GENERAL UNIVERSITY REQUIREMENTS

## ◆ENGLISH (ENG)

335—Literary and Creative Expressions Across Asia, Africa, the Middle East, and Latin America (5)

336—Scriptural Literatures in Asia, Africa, the Middle East and Latin America (5)

## ◆ENVIRONMENTAL STUDIES (ENVS)

333—East Asia: Society and Environment (3)

334—South Asia: Society and Environment (3)

335—The Middle East: Society and Environment (3)

## ◆EURASIAN STUDIES (EUS)

210—Nomads of Eurasia (5)

## ◆FAIRHAVEN (FAIR)

210A—World Issues (4)

334H—Human Rights in Africa (5)

371B—Topics in Middle East Studies (3-6)

## ◆HISTORY (HIST)

273—Latin America: 1492-1824 (5)

274—Latin America: 1824 to the Present (5)

280—Introduction to East Asian Civilizations (5) (*Also taught as EAST 201*)

281—East Asian History in the Early-Modern and Modern Eras (5) (*Also taught as EAST 202*)

285—African History to 1800 (5)

286—African History 1800—Present (5)

287—Introduction to Islamic Civilization (5)

359—America and Vietnam (5)

385—Pre-Colonial Africa (5)

387—History of the Jews (5)

## ◆HONORS (HNRS)

105—Major Cultural Traditions III (4)

## ◆INTERNATIONAL STUDIES (INTL)

201—Introduction to Global Studies (5)

325—Global Literature (4)

## ◆LIBERAL STUDIES (LBRL)

231—Introduction to the Study of Religion (5)

271—Humanities of India (5)

273—Art and Society in China and Japan (4)

275—Humanities of Japan (5)

276—Humanities of Africa (5)

277—Humanities of China (5)

278—Humanities of Islamic Civilization (5)

281—Representations of Otherness (4)

283—Religion and Globalization (5)

334—Hebrew Bible and the Religion of Ancient Israel (5)

338—Mysticism (5)

360—China and the Emerging World Economy: From Antiquity to the Early Modern (5)

362—Islam and Muslims in the Indian Ocean World (4)

372—Postcolonial Novels: Art, Rhetoric and Social Context (4)

378—Religion and Society in India (4)

380—Religion and Society in China (5)

382—Religion and Society in Japan (5)

## ◆MODERN AND CLASSICAL LANGUAGES

### Arabic (ARAB)

202—Intermediate Arabic (5)

203—Intermediate Arabic (5)

### Chinese (CHIN)

202—Second-Year Chinese (5)

203—Second-Year Chinese (5)

301—Third-Year Chinese (4)

302—Third-Year Chinese (4)

303—Third-Year Chinese (4)

304—Chinese Grammar and Composition (4)

### Japanese (JAPN)

202—Second-Year Japanese (4)

203—Second-Year Japanese (4)

301—Third-Year Japanese (4)

302—Third-Year Japanese (4)

303—Third-Year Japanese (4)

305—Japanese Conversation (3)

401—Advanced Japanese (4)

### Modern and Classical Language (LANG)

430—Asian Language Pedagogy and Practice (4)

## ◆MUSIC (MUS)

205—Survey of Non-Western Musical Cultures (3)

## ◆NURSING (NURS)

452—Global Health Inequities and Interventions (5)

## ◆POLITICAL SCIENCE (PLSC)

346—Politics of Inequality (5)

## ◆WOMEN STUDIES (WMNS)

314—Global Women (4)

## Block B—Primary emphasis inside North America and/or Europe.

*Provides an introduction to multicultural experience and to gender studies.*

## ◆AMERICAN CULTURAL STUDIES (AMST)

202—The American Indian Experience (3)

203—The Hispano/a-American Experience (3)

204—The African-American Experience (3)

205—The Asian-American Experience (3)

206—The Jewish-American Experience (3)

242—The Lesbian, Gay, Bisexual, Transgendered Experience (3)

301—Comparative Cultural Studies (4)

362—Asian-American History (5) (*Also taught as HIST 362*)

## ◆ANTHROPOLOGY (ANTH)

104—American Mosaic: The Cultures of the United States (4)

353—Sex and Gender in Culture (5)

361—Native Peoples of North America (5)

## ◆ENGLISH (ENG)

227—Introduction to Gay, Lesbian, Bisexual and Transgender Literature (5)

234—Introduction to African-American Literature (5)

235—Introduction to American Indian Literatures (5)

236—Introduction to Asian-American Literatures (5)

239—Introduction to Latina/o Literatures (5)

334—Literary and Creative Expression Across North America and Europe (5)

338—Women and Literature in North America and Europe (5)

## ◆HISTORY (HIST)

158—Race and Identity in Modern America (4)

262—African American History to 1865 (5)

263—African Americans since 1865 (5)

265—Lesbian, Gay, Bisexual, and Transgender Experiences in U.S. History (5)

275—The Indian in American History (5)

278—Multiculturalism in Canada (5)

353—Latinas/os in the US West (5)

362—Asian-American History (5) (*Also taught as AMST 362*)

## ◆HONORS (HNRS)

106—Major Cultural Traditions IV (4)

## ◆JOURNALISM (JOUR)

375—Diversity, Mass Media and Social Change (4)

## ◆NURSING (NURS)

432—Community-Based Care for Vulnerable Populations (5)

## ◆PSYCHOLOGY (PSY)

119—Psychology of Gender (4)

## ◆SOCIOLOGY (SOC)

268—Gender and Society (5)

269—Race and Ethnic Relations (5)

## ◆WOMEN STUDIES (WMNS)

211—Introduction to Women Studies (4)

## NATURAL SCIENCES (LSCI & SCI)

The Natural Sciences requirement provides an introduction to the content and methods of the physical and biological sciences. These fields investigate natural phenomena, ranging from the origin of the universe to development of life forms to the structure of the atom. Their methods include direct and indirect observation, experimentation, and construction of theoretical models of natural systems.

**Complete 3 courses. At least two of the courses must be from the LSCI list; the third course may be from either the LSCI list or SCI list.**

Note: *Several of the courses in this list have prerequisites.*

## LSCI (courses with a laboratory component)

### ◆ANTHROPOLOGY (ANTH)

215—Introductory Biological Anthropology (5)

### ◆BIOLOGY (BIOL)

101—Introduction to Biology (4)

102—Biological Diversity: Evolution and Systems (4)

204—Introduction to Evolution, Ecology and Biodiversity (4)

205—Introduction to Cellular and Molecular Biology (5)

206—Introduction to Organismal Biology (5)

### ◆CHEMISTRY (CHEM)

101—Chemical Concepts (4)

121—General Chemistry I (5)

122—General Chemistry II (5)

123—General Chemistry III (4)

125—General Chemistry I, Honors (5)

126—General Chemistry II, Honors (5)

225—General Chemistry III, Honors (5)

251—Elementary Organic Chemistry (5)

### ◆COMMUNICATION SCIENCES AND DISORDERS (CSD)

253—Speech and Hearing Sciences for the Liberal Arts (4)

### ◆ENVIRONMENTAL STUDIES (ENVS)

203—Physical Geography (4)

# GENERAL UNIVERSITY REQUIREMENTS

## ◆GEOLOGY (GEOL)

- 101–Introduction to Geology (4) (*Only one of Geology 101 and Honors 212 may be taken for credit*)
- 211–Physical Geology (5)
- 212–Historical Geology (4)
- 252–The Earth and Its Weather (4)

## ◆HONORS (HNRS)

- 211–Colloquium in Physics (4) (*Only one of Honors 211 and Physics 101 may be taken for credit*)
- 212–Colloquium in Geology (4) (*Only one of Honors 212 and Geology 101 may be taken for credit*)
- 213–Colloquium in Biology (4)

## ◆PHYSICS (PHYS)

- 101–Physics Analysis (4) (*Only one of Physics 101 and Honors 211 may be taken for credit*)
- 104–Physics Applications (4)
- 115–Principles of Physics II (5)
- 116–Principles of Physics III (5)
- 161–Physics with Calculus I (5)
- 162–Physics with Calculus II (5)
- 163–Physics with Calculus III (5)

## ◆SCIENCE EDUCATION (SCED)

- 201–Matter and Energy in Physical Systems (4)
- 202–Matter and Energy in Earth Systems (4)
- 203–Matter and Energy in Life Systems (4)
- 204–Matter and Energy in Chemical Systems (4)

## SCI (courses without a laboratory component)

### ◆ASTRONOMY (ASTR)

- 103–Introduction to Astronomy (4)
- 113–Sun, Moon, and Planets (3)

### ◆BIOLOGY (BIOL)

- 140–The Ecology and Economics of Salmon Recovery (4) (*Also taught as ECON 140*)

### ◆ECONOMICS (ECON)

- 140–The Ecology and Economics of Salmon Recovery (4) (*Also taught as BIOL 140*)

### ◆ENVIRONMENTAL SCIENCE (ESCI)

- 101–Environmental Studies: A Scientific Approach (3)
- 204–The Oceans: Topics in Marine Science (4)

### ◆GEOLOGY (GEOL)

- 202–Plate Tectonics and Continental Drift (4)
- 204–Geology and Society (3)
- 214–Environmental Geology (3)
- 303–Dinosaurs and Their Environment (3)
- 308–Earthquakes (3)
- 315–Minerals, Energy and Society (4)
- 340–Geological Oceanography (3)

### ◆INTERDISCIPLINARY SCIENCES, TECHNOLOGY AND MATHEMATICS (ISTM)

- 201–Science Literacy (3)

### ◆MATERIALS SCIENCE (MSCI)

- 101–The Materials Revolution (4)

### ◆PHYSICS (PHYS)

- 102–Physics and Contemporary Issues (3)
- 114–Principles of Physics I (5)

# Graduate School

## Introduction

*E-mail: [gradschool@wwu.edu](mailto:gradschool@wwu.edu)*

[www.wwu.edu/gradschool](http://www.wwu.edu/gradschool)

Kathleen Kitto, Acting Dean, Old Main 530, 360-650-3170

WWU is authorized by the State Legislature to award eight graduate degrees:

- Master of Arts (MA)
- Master of Fine Arts (MFA)
- Master of Science (MS)
- Master of Education (MEd)
- Master of Business Administration (MBA)
- Master of Music (MMus)
- Master of Professional Accounting (MPAcc)
- Master in Teaching (MIT)

The purpose of graduate study at WWU is to provide students quality graduate education with opportunities for research and professional development. Graduate programs are intended to prepare able students for (1) teaching, (2) entering professions, (3) career advancement and (4) further advanced study.

WWU's graduate programs are accredited by the Northwest Commission on Colleges and Universities. Graduate programs which result in educator certification are also accredited by the National Council for the Accreditation of Teacher Education (NCATE). The College of Business and Economics is accredited by the AACSB International Association to Advance Collegiate Schools of Business at both the graduate and undergraduate levels. The Department of Communication Sciences and Disorders is accredited by the American Speech-Language- Hearing Association's Council on Academic Accreditation in Audiology and Speech-Language Pathology (ASHA) and by the National Council for the Accreditation of Teacher Education (NCATE). The mental health and school counseling programs are accredited by Council for Accreditation of Counseling and Related Educational Programs (CACREP). The Rehabilitation Counseling program is accredited by the Council on Rehabilitation Education (CORE). The University is a member of the Council of Graduate Schools in the United States and adheres to the general policies and criteria established by this national association.

The graduate programs provide service to the state and its major divisions, to the business and commercial sector, and to a number of professions.

Several of WWU's graduate programs offer courses or program elements at locations outside Bellingham, within the Puget Sound region and online. Refer to the University's online Summer Session Bulletin (<http://www.acadweb.wwu.edu/eesp/summer/index.shtml>) for programs offering summer graduate courses. Persons who plan to enter graduate study at WWU should read this section of the General Catalog closely before applying for admission to graduate study or enrolling in any course intended to count toward a master's degree or advanced certificate of study. Students working toward a residency, continuing, or professional teaching certificate should contact the Certification Office in the Woodring College of Education. Students should consult with the appropriate graduate program advisor and the graduate office for additional admissions or program-related questions.

## Admission

Admission is granted by the Graduate School of Western Washington University with the concurrence of the department or program unit in which the student will pursue graduate study. The Graduate School informs applicants of the admissions decision. Online application submission and credit card payment is available from the Graduate School Website. Paper application forms may be requested or downloaded from the Website forms page. A nonrefundable application fee of \$100 (subject to change) is charged for each application



## GRADUATE SCHOOL

submitted, whether initial application, or request to defer, change to another quarter of admission, or transfer into another WWU graduate program. Admission to the Graduate School is limited to a single graduate program unless two disciplines have an approved joint offering (see University Graduation Requirements section of this catalog for further discussion). A non-refundable confirmation deposit will be required to secure admission and enrollment eligibility. Graduate School admission deadline dates are as follows, although many programs have earlier specific deadline dates and do not admit for all quarters.

Initial application with all supporting materials (see below) must be received in the Graduate School Office by June 1 for fall, October 1 for winter, February 1 for spring and May 1 for summer unless program-specific deadlines exist (see specific program information).

**NOTE:** The requirements and procedures listed below demand lead time. Applicants are urged to submit all necessary materials as early as possible before the beginning of the term for which admission is requested or by the earlier, program specific deadline dates. Timeliness of complete application materials may impact graduate assistantships and other sources of funding. Faculty review of application materials is unlikely during periods that the University is not in session.

### General Requirements

#### *Full Admission to Master's Degree Study*

- A four-year baccalaureate degree from a U.S. college or university that was regionally accredited at the time the degree was conferred, or an equivalent baccalaureate degree from a foreign university; the degree must be appropriate to the master's study intended. One recent, official transcript from each college or university attended (no exceptions) must accompany the application in a sealed envelope prepared by the Registrar of each institution. WWU students do not need to submit a WWU transcript or transcripts previously submitted to WWU (unless there is a later period of attendance).
- A 3.0 undergraduate grade point average (on a 4.0 scale) in the last 90-quarter or 60-semester hours of study. In order for post-baccalaureate credit to be included in the GPA computation, the coursework must be upper division. Post-baccalaureate coursework at community colleges will not be included in the GPA used for admission. Applicants with advanced degrees from accredited institutions are generally, at the discretion of the Graduate School, considered to have met GPA requirements.
- Three current letters of reference from professors in the applicant's undergraduate major field, or from professors of post-baccalaureate courses, or from others able to make an appropriate assessment of the applicant's academic or professional competence (forms available from the Graduate School website). If the applicant selects confidential (rather than open) letters of recommendation, the confidential letters must be received in sealed envelopes, with the signature of the referee across the seal. The MBA and MPAcc programs require a résumé in lieu of references. The Educational Administration program requires a professional recommendation.
- Graduate Record Exam (GRE) or other test scores; applicants with advanced degrees from regionally accredited institutions applying to certain programs do not need to submit scores. MPAcc applicants must provide the Graduate Management Admissions Test (GMAT); MBA applicants may take either the GMAT or the GRE. Some programs accept the Miller Analogies Test (MAT). See program admission requirements for specific test information and requirements. Scores must be received in the Graduate School office by the program specific deadline date; if no program-specific deadline date, then by the Graduate School deadline date.
- All applicants must demonstrate English language proficiency. At least minimum TOEFL or IELTS test scores (see International Applications section) must be submitted unless English is the native language or the degree is from a regionally accredited U.S. institution, or from Great Britain, Australia, New Zealand or English-speaking provinces of Canada.
- Favorable review and recommendation of applications by the graduate faculty in the program to which application is made.

- **Special Requirements.** Certain programs have additional requirements or procedures; see the program descriptions. If a program requires a statement of purpose and/or writing sample(s), these must accompany the application. See specific program information for clarification.

Materials submitted in support of an application will not be returned, forwarded, or copied at the request of the applicant; materials are used only for the WWU Graduate School admissions and Teaching Assistant selection process. Incomplete or inactive applications are kept on file in the Graduate Office for three years, then destroyed. If during this three-year period an applicant reapplies, official documents (test scores, transcripts, current letters of recommendation) may be used for a new admission application.

The MAT is offered Monday through Friday by appointment through the Western Washington University Testing Center, 360-650-3080.

Contact Educational Testing Service in Princeton, N.J. at 866-473-4373 or [www.gre.org](http://www.gre.org) for further information about the GRE testing program. For information about the GMAT, visit [www.mba.com/mba](http://www.mba.com/mba).

Current GRE board policy states that scores are reportable for five years. The Graduate School accepts only official test scores from admissions tests sent directly from the testing organization. Students should refer to the specific test website for information on the availability of official test scores.

#### *Provisional Admission*

Students who do not meet all the requirements for full admission may be granted provisional admission. The faculty of the applicant's intended graduate program must submit a statement of support for provisional admission to the graduate dean. If provisional admission is authorized by the Graduate School, the provisions are stated in the letter offering the student special admission to graduate study. No K (incomplete) grades are allowed until provisional status is removed. A provisionally admitted student is not eligible for a teaching assistantship or Graduate School-funded scholarships until the provisional status is removed.

#### *Licenses/Certification*

Students in some master's programs also apply for licensing or certification through professional organizations or state agencies. The certificate or license is separate from the master's degree. It is the applicant's responsibility to inquire about licensing or certification requirements prior to enrolling.

#### *International Applicants*

All applicants must demonstrate competence in written and spoken English. This can be done by submitting a satisfactory score on the international TOEFL or IELTS, taken within one year of the date of application. Minimum TOEFL score of 567 for the paper-based test; 227 for the computer-based test; 86 for the Internet-based test. IELTS minimum score is 7.0. Official test scores must be on file in the Graduate School prior to receipt of the application.

International students must submit official translations to English of all transcripts and diplomas from all post-secondary institutions attended. Documents must be issued within two years at the time of application. All international transcripts must be submitted to World Education Service (WES) for authentication and course-by-course evaluation. To be considered official, transcripts must be in sealed envelopes prepared by the university or college; attested/certified copies prepared by the institution may be accepted if originals cannot be provided by the institution.

#### **EXCEPTION:**

Applicants attending institutions in China must request official transcripts from the Ministry-authorized verification offices listed below; transcripts directly from an institution cannot be considered official.

China Academic Degrees and Graduate Education Development Center (CDGDC)

Website: <http://cq.v.chinadegrees.cn/>

China Higher Education Student Information & Career Center (CHESICC)

Website: <http://chsi.com.cn>

International students must file a satisfactory statement of financial responsibility with the Graduate School.

## GRADUATE SCHOOL

Current expenses are approximately \$33,000 for one academic year of study. An application for an international student cannot be processed unless accompanied by appropriate financial guarantee documentation. International students are not eligible for federal or state governmental financial aid. International students are encouraged to complete the admission process as soon as possible to obtain a visa and make travel arrangements.

### **Funding and Support**

#### **Graduate Assistantships**

Graduate assistantships are available in limited number in most graduate programs and are competitively awarded. Assistantships are not available in self-sustaining (non state-supported) programs. Only students with full admission, not provisional status, may be awarded the TA. To continue as a graduate assistant, the graduate student must meet or exceed all academic criteria pertaining to satisfactory progress toward the degree, and meet or exceed all departmental requirements and criteria for satisfactory service as a graduate teaching assistant. Graduate students are limited to no more than the equivalent of six full-time quarters of service as graduate teaching assistants. Graduate assistants must meet the Graduate School definition of full-time enrollment.

Duties vary according to the department and program, the needs of the program faculty and the student's graduate plan of study. A full-time assistantship does not allow for additional salary or employment from the University. Graduate teaching assistantship applicants whose native language is not English must demonstrate English language proficiency required for classroom or laboratory instruction. Applicants to graduate programs check the TA box on the on-line application or submit the on-line graduate assistantship request for consideration (go to Graduate School website).

#### *Financial Aid*

Graduate students also are eligible for several types of financial aid; information can be obtained from the University's Financial Aid Office, [www.finaid.wvu.edu/](http://www.finaid.wvu.edu/).

### **Program Requirements**

Graduate programs at WWU generally require a minimum of 45 credits with thesis and 48 credits without thesis. The minimum basic program requirement generally contains at least 24 credits of approved 500- and 600-level courses other than the thesis (690); and no fewer than 5 credits and no more than 36 credits of thesis (690). For a non-thesis program, the minimum basic program requirement must contain at least 38 credits of approved 500- and 600-level courses. A maximum of 10 credits of approved 400-level courses can be applied to either thesis or non-thesis programs. All 400-level courses must meet the same standards as regular 500-level courses with regard to grading, time frame, et cetera.

For students who have taken a significant number of graduate level accounting, mathematics or computer science courses as undergraduates at WWU, and who as undergraduates were identified for admission to the Graduate School, the graduate programs in accounting, mathematics and computer science require only 36 500- and 600-level credits. Guidelines for this option are available from the departments.

It is recommended that no more than 10 credits of directed independent study be applied toward the degree, although some programs are more restrictive. A graduate student registering for a 500 or 400 independent study course used for the degree develops a contract (online form) with the instructor, which is then reviewed and approved by the graduate program advisor, department chair and the Graduate School. Independent study credit normally will not be given when the student is paid for engaging in the work described on the contract (e.g., internship, work-study projects, graduate assistantships).

Many programs require more than 45 or 48 credits to meet degree requirements. Also, certain undergraduate deficiencies may add additional credits to an individual student's course of study. (See *Plan of Study* section that follows.) These deficiencies may affect financial aid awards.

## Additional Requirements

Program descriptions in this catalog provide information about special requirements: statistics competency, second language competency, sequence of particular courses, et cetera. Most graduate programs provide information about such special requirements; the student should request this information from the program advisor.

Students whose research involves human subjects or live vertebrate animals must obtain approval prior to conducting research and comply with University policies regarding these types of research. Please refer to [www.wvu.edu/depts/rsp](http://www.wvu.edu/depts/rsp).

Graduate students in departments with a foreign language requirement may satisfy the requirement by (a) successfully completing the final course in a second-year language sequence, (b) passing a reading competency exam in the language, or (c) completing another department-approved course or course sequence. Each department sets its own minimum standard to indicate the required level of competency. Graduate students are encouraged to complete the foreign language requirement early in their program.

## Time Limits

All requirements for the degree must be completed within five years of the initial quarter of matriculation. Active graduate students within this five-year time period maintain access to library and computer resources. Students who have not completed their program after three years of study are required to file a plan for completion of the degree within the five-year limit. Otherwise it is understood that the student has decided to withdraw from the program, and the graduate file is inactivated. Student computer accounts which allow access to computer labs, e-mail, library privileges, and other student technology services are purged at the end of this five-year period. Incomplete or inactive applications are kept on file in the Graduate Office for three years, then destroyed. Files of students who are admitted and register for coursework but do not complete their programs are kept for five years after the five-year program requirement. Files of students who complete programs are archived for 35 years.

## Academic Load

The maximum credit load for a graduate student is determined in consultation with the student's graduate program advisor, within the policies set by the Registrar.

The Graduate School defines full-time enrollment as 8 or more credits per quarter. Graduate students who have successfully completed all coursework on the approved Plan of Study, except for thesis (690) or research (691) work, maintain eligibility for the teaching assistantship if enrolled for a minimum of two credit hours of continuous enrollment, thesis, or research. See the Financial Aid section for implications of being enrolled for 2 credits if the student requires financial aid.

## Transfer, Correspondence, and Workshop Courses

Coursework taken prior to formal admission to a WWU master's degree program, whether at Western or another accredited institution, can be considered for transfer credit if the criteria listed below are met. Credit taken at another accredited institution, concurrent with graduate status in a WWU master's degree program, can also be considered for transfer credit if the criteria listed below are met. (Such coursework should be approved in advance of registration to prevent any misunderstanding or false expectations.) The criteria are: a limit of nine quarter (six semester) credits; graded with a B, 3.0, or better; taken no more than three years prior to a student's quarter of admission; be acceptable to the granting institution for its master's degree; and meet the requirements and conditions of approved courses offered by WWU. The request for transfer credit, including a copy of the course syllabus, is submitted by the graduate program advisor and student for approval by the Graduate School. At the recommendation of the graduate program advisor and the approval of the Graduate School, some course requirements may be waived, depending on a student's previous academic experience. However, the total number of credits required for the degree must still be met. No credit is given for correspondence courses. No credit is allowed by challenge examination or performance.

## GRADUATE SCHOOL

Courses offered as workshops or in a shortened time frame, even under regular course numbers, do not qualify for graduate credit toward a degree, unless the department obtains prior permission for each specific instance from Graduate Council. To ensure that prior approval has been granted, students should obtain written permission from the Graduate School prior to enrolling.

### **Thesis and Comprehensive Examinations**

Master's degree programs are thesis or non-thesis (additional coursework and, in most programs, a comprehensive exam). See specific program descriptions for information. Minimally, the thesis committee has three members. The chair and a second member must be regular graduate faculty members from the student's department or program. Guidelines for the thesis are available online at the Graduate School Website. Joint manuscripts are not permitted. Only an individually authored manuscript will meet the thesis requirements. Departments that require the thesis customarily provide additional guidance.

Refer to the Graduate School website for current information on Graduate School requirements pertaining to thesis publication.

Prior to registration for thesis, departments and the Graduate School require that a student be advanced to candidacy and have an approved thesis topic on file in the Graduate Office. Students whose research involves human subjects or live vertebrate animals must comply with University policies regarding these types of research. Please refer to [www.wvu.edu/depts/rsp](http://www.wvu.edu/depts/rsp). Registering for thesis credits beyond the maximum allowed for the degree may affect a student's eligibility for certain kinds of financial aid.

Comprehensive exams or assessments vary among programs. Students should consult their respective programs for information.

The comprehensive exam should be scheduled for the final quarter of the student's enrollment. It may be deferred upon request by the student and agreement by the graduate advisor until all coursework has been completed. Comprehensive exams, if failed, may be repeated, but only if the graduate faculty of the particular program approves the student's request to repeat the exam.

### **Plan of Study**

During the first quarter of graduate study at WWU, the student and graduate program advisor together develop a "Plan of Study" in accordance with the requirements described in the catalog's program narrative. This plan is signed by both the student and program advisor and submitted to the Graduate School for approval. Copies of the approved plan are sent to the student and advisor and the financial aid office. Plans of study may be amended as necessary, upon the request of the student and program advisor and final approval by the Graduate School. Failure to have an approved plan of study on file may result in loss of registration privileges.

### **Scholarship Standards**

A maximum of 10 credits of C grades (C+, C, C-) is allowed towards completion of a graduate program (courses listed on the approved plan of study). Courses in which a D+ or lower is earned may not be applied towards completion of a graduate program. The accumulation of more than 10 credits of C+ or lower (including U and Z) grades will result in the student being withdrawn from the master's program. There are certain courses that must be passed with a grade of B or better; course descriptions note such requirements. All grades of C+ or lower count toward the 10-credit maximum, even if the course is retaken and a grade of B or better, or S, is earned. A graduate student may be required by the department to repeat a course to document attainment of a certain level of competence or knowledge. Pass/No Pass grades are not applicable toward a graduate degree. S grades are applicable, but not computed in the GPA. An incomplete (K) grade may be assigned in accordance with the regulations outlined in the Academic Policies section of this catalog. If, after a calendar year, the course requirements have not been met, the K grade lapses to a Z. These Z grades are computed as failing grades in a student's grade point average and may affect retention in the master's program. Exceptions to the K grade rule are K grades which are received for thesis and certain

research courses. In these cases, the K grades are allowed to stand until the thesis or research is completed, whereupon the grade is changed to the earned grade.

To remain a candidate for the degree, a student must maintain at least a 3.0 GPA in courses listed on the plan of study. The GPA is calculated on letter grades earned (on record) at the time grades are posted, i.e., K grades are not considered. A student also must be making satisfactory progress in the graduate program to which he or she has been admitted.

### **Degree Candidacy**

Advancement to degree candidacy is formal recognition that the student has completed all admission requirements and has demonstrated satisfactory performance in at least 12 credits of graduate study as listed on an approved plan of study. Advancement to candidacy is a prerequisite to earning the master's degree and should be accomplished as early as the student is eligible. Advancement is granted by the student's program upon completion of minimum requirements as stated above. A student must be advanced to candidacy before submitting the application for degree. Confer with your advisor if you have questions about your status or eligibility for advancement to candidacy.

### **Awarding of the Master's Degree**

The master's degree is earned at the end of the quarter in which the student has completed all degree requirements and has filed the application for degree. Recommendation for the degree is made to the Graduate Council by the student's program advisor and thesis committee (if in a thesis program). Application for the degree must be made by the last day of classes of the quarter prior to the quarter the student intends to graduate. A student must also be enrolled for at least two state-supported credits at WWU during the quarter in which the degree is awarded or during the preceding (calendar) quarter. Auditing a course for this purpose is not permitted. A commencement ceremony is held at the end of each quarter. Students participate in the commencement ceremony for the quarter in which degree requirements are met, including filing the application for degree and paying the diploma fee by the stated deadline.

### **Teacher Certification**

The Woodring College of Education, not the Graduate School, administers the certification of P-12 teachers. Students interested in certification at the P-12 or secondary level, contact the Secondary Education Department, MH 173 360-650-3327. Students interested in Special Education P-12 certification, contact the Special Education Department, MH 161, 360-650-3330. Other certification questions can be directed to the Teacher Certification, Student Services, MH 250, 360-650-4930 or [www.wce.wwu.edu/resources/certification/](http://www.wce.wwu.edu/resources/certification/).

### **Undergraduate and Post-Baccalaureate Enrollment in 500/600 Level Courses**

Undergraduates at WWU who are in their senior year and have at least a 3.0 grade point average can take a single graduate course during any quarter, but under certain provisions. There must not be an appropriate undergraduate course in their field that is equally available; permission must be obtained in advance from the department chair and graduate program advisor of the department offering the graduate course; and the Graduate Office must approve the enrollment. A senior who later enters a master's program at WWU may transfer up to nine credits of coursework into the master's program. The credit must not have been used for the baccalaureate degree and must meet all criteria for transfer credit. To register, contact the Graduate School office for a registration system override. Post-baccalaureate students may enroll for 500- level courses. All prerequisites must be met and permission obtained from the department. Neither undergraduate nor post-baccalaureate students may enroll in 600-level courses.

## GRADUATE SCHOOL

### **The Graduate Council**

The Graduate Council, comprised of representatives from graduate faculty, colleges with graduate programs, and graduate students, is assigned responsibility within the University for graduate policy and procedures. The Council reviews all graduate course proposals and graduate program requirements and conducts periodic reviews of graduate programs. The Council also hears and decides on requests for exceptions from standing policies and procedures that regulate graduate study.

### **Faculty/Student-Designed Programs**

#### ***MA, MS, MEd***

At times students and faculty develop programs that are more interdisciplinary than the master's programs described in this catalog. In each instance this requires a complete Graduate School application and a proposed plan of study that has been approved by the graduate faculty and departments the student intends to work with and by the University's Graduate Council. At least two or more graduate disciplines must be involved.

Programs of this type are restricted by several factors: current offerings which can provide a basis for the individual program; availability of appropriate faculty; the applicant's academic preparation and ability; and the internal logic, or relationship of the elements of the proposed program. Each case is considered on its merits.

For candidates who are currently enrolled as graduate students no more than 15 credits of course work (completed by the end of the quarter the petition is approved) can apply toward the designated program. Detailed information can be obtained by contacting the Graduate Office. Ask for *Fact Sheet: Faculty/Student-Designed Programs*. Procedures for applying are contained in the Fact Sheet.

## **Master of Arts**

### **Student/Faculty Designed, MA**

At times students and faculty develop programs that are more interdisciplinary than the master's programs described in this catalog. In each instance this requires a complete Graduate School application and a proposed plan of study that has been approved by the graduate faculty and departments the student intends to work with and by the University's Graduate Council. At least two or more graduate disciplines must be involved.

Programs of this type are restricted by several factors: current offerings which can provide a basis for the individual program; availability of appropriate faculty; the applicant's academic preparation and ability; and the internal logic, or relationship of the elements of the proposed program. Each case is considered on its merits. For candidates who are currently enrolled as graduate students no more than 15 credits of course work (completed by the end of the quarter the petition is approved) can apply toward the designated program.

Detailed information can be obtained by contacting the Graduate Office. Ask for **Fact Sheet: Faculty/Student-Designed Programs**. Procedures for applying are contained in the Fact Sheet.

## **Master of Education**

### **Student/Faculty Designed, MEd**

At times students and faculty develop programs that are more interdisciplinary than the master's programs described in this catalog. In each instance this requires a complete Graduate School application and a proposed plan of study that has been approved by the graduate faculty and departments the student intends

to work with and by the University's Graduate Council. At least two or more graduate disciplines must be involved.

Programs of this type are restricted by several factors: current offerings which can provide a basis for the individual program; availability of appropriate faculty; the applicant's academic preparation and ability; and the internal logic, or relationship of the elements of the proposed program. Each case is considered on its merits. For candidates who are currently enrolled as graduate students no more than 15 credits of course work (completed by the end of the quarter the petition is approved) can apply toward the designated program.

Detailed information can be obtained by contacting the Graduate Office. Ask for **Fact Sheet: Faculty/Student-Designed Programs**. Procedures for applying are contained in the Fact Sheet.

## Master of Science

### Student/Faculty Designed, MS

At times students and faculty develop programs that are more interdisciplinary than the master's programs described in this catalog. In each instance this requires a complete Graduate School application and a proposed plan of study that has been approved by the graduate faculty and departments the student intends to work with and by the University's Graduate Council. At least two or more graduate disciplines must be involved.

Programs of this type are restricted by several factors: current offerings which can provide a basis for the individual program; availability of appropriate faculty; the applicant's academic preparation and ability; and the internal logic, or relationship of the elements of the proposed program. Each case is considered on its merits. For candidates who are currently enrolled as graduate students no more than 15 credits of course work (completed by the end of the quarter the petition is approved) can apply toward the designated program.

Detailed information can be obtained by contacting the Graduate Office. Ask for **Fact Sheet: Faculty/Student-Designed Programs**. Procedures for applying are contained in the Fact Sheet.



# College of Business and Economics

## Introduction

*Dr. Craig P. Dunn, Interim Dean*

*Dr. Sandra Mottner, Associate Dean*

### *Mission Statement of the College*

The College of Business and Economics provides high-quality programs in business and economics, focusing primarily on undergraduate instruction. The College serves the needs of students from throughout the region by offering programs that provide a global perspective, a knowledge of information technology and the ability to apply economic and business principles. The College also offers graduate programs in business administration and professional accounting and provides instruction to students from other colleges within the University. As a supporting part of this educational mission, the faculty of the College engages in applied, integrative, and pedagogical scholarship and provides services to their profession, the community and the University. The College seeks continuous improvement in the quality of its pedagogy, scholarship and service to its constituents.

### *Objective of the College*

The College of Business and Economics prepares men and women for positions of leadership and stewardship in the management and administration of complex organizations - from small companies to large multinational enterprises. Students develop managerial skills, analytic economic skills and interpersonal sensitivities, as well as quantitative and accounting skills. All students earning a degree in one of the programs of the college will develop significant understanding of management information systems and computing.

The curriculum is primarily upper-division based upon a broad liberal arts education. Individual skills are developed sufficiently to achieve entry-level employment in many fields, but the College seeks to motivate and orient the student toward a lifelong learning experience. The College seeks to instill sensitivity to environmental aspects of business enterprise, promotes a commitment to ethical behavior, and provide a strong emphasis on forward-looking, goal setting behavior in the business world while encouraging an active role in community leadership.

The College of Business and Economics is accredited by the AACSB International-The Association to Advance Collegiate Schools of Business at both the graduate and undergraduate levels.

### *Academic Programs Leading to Undergraduate and Graduate Degrees*

Accounting	BA
Business Administration	BA
Business and Sustainability	BA
Economics	BA
Manufacturing Management	BS
Master of Business Administration	MBA
Master of Professional Accounting	MPAcc

Requirements for the master's degrees offered in CBE are listed in the Graduate School section of the catalog.

## Major/Minors

### *Minor*

In addition to the majors provided by the five departments, a minor makes an excellent addition to a specialized program in other areas of the University. This gives relevant, realistic and applicable qualities to those valuable skills developed in other more abstract and theoretic departments. The combination of a minor with a major in speech, English, journalism, foreign languages or with other liberal arts majors provides an

additional strength and resource to the individual's skills and educational development. See departments for details on minors.

### *Combined Majors*

Interdepartmental majors are given in economics/accounting, economics/environmental studies, economics/mathematics, economics/political science, economics/social studies, financial economics and politics/philosophy/economics. See departments for details.

## **College Admission and Advisement**

### *Admissions and Major Declaration*

Admission to programs in the College of Business and Economics is selective and based upon prior academic performance. All students intending to earn a degree in accounting or any area of business (except economics) must complete the foundation courses comprised of ACCT 240, 245; ECON 206, 207; MATH 157; MIS 220; DSCI 205; MGMT 271, or their approved equivalent, with a grade of C- or better. All foundation classes except MIS 220 must be taken as graded credit and cannot be taken Pass/ No Pass. Students must successfully complete the foundation courses and meet the admission criteria below before they are admitted to the College and declared a business or accounting major. Students interested in majoring in economics must consult the economics section of this catalog.

For admission to the College of Business and Economics as a full major (except majors in economics and manufacturing and supply chain management) a student must meet the following requirements:

- Minimum GPA of 2.75 in the foundation courses **or**
- Minimum of 2.50 cumulative GPA after having completed all foundation courses. The cumulative GPA is calculated on all college-level course work completed by the student, including any transfer work.
- Students must be in good academic standing with the University.

Students who meet the requirements will be assured of admission if space is available in the department program of choice. For economics and manufacturing and supply chain management admissions requirements, see the appropriate sections of this catalog.

Students who have not completed their foundation course work may apply to the College and be given pre-major status. Pre-major status is granted to students who are at least sophomore level, or who have been identified as top quintile students, and who are, at the time of application, making satisfactory progress in their course work.

Students with pre-major status may only enroll for foundation or core courses listed. Their progress will be monitored by the College and they will attain full major status upon successfully completing the foundation courses and meeting the admission criteria above. If after completing the foundation courses they do not meet the criteria for full major admission, they will be dropped from the College. They may reapply should they repair the deficiency.

Provisional full major admit status in the College is provided to students completing their last foundation course(s) and would be eligible to enroll for major restricted courses as a full major in the following quarter upon successful completion of their current course work. Students may be in provisional status only one quarter. Failure to advance to full major status will result in cancellation of major restricted courses registration and removal from major status.

For students to be considered for pre-major, full major or provisional status the College office needs to have an application on file. See Admissions Process below.

Following admission to the College, a student is assigned an advisor and is required to consult with that advisor.

### *Admission Process*

Students must confirm admission to Western Washington University before submitting an application to the College of Business and Economics. The application process originates with the College office when the

## COLLEGE OF BUSINESS AND ECONOMICS

student submits an on-line application form via the College of Business and Economics website, [cbe.wvu.edu/cbe/students/application.shtml](http://cbe.wvu.edu/cbe/students/application.shtml). Applications will be reviewed against admission criteria by College staff with every effort being made to inform the student of their status in a timely manner. Students interested in either an economics major from the Department of Economics, or a BS degree in manufacturing management from the Department of Decision Sciences will submit an on-line application. Once an application is submitted, the student will be contacted by the department to schedule an interview.

Inquiries should be directed to College of Business and Economics, Western Washington University, 516 High Street, Bellingham, WA 98225-9072, or phone 360-650-3896.

### *Department Chairs*

Dr. George Sanders	Accounting
Dr. Steve Henson	Economics
Dr. Craig Tyran	Decision Sciences
Dr. Ed Love	Finance and Marketing
Dr. Mary Sass	Management

### *Directors*

Dr. Craig Dunn	MBA Program and MPAcc Program
Dr. Sandra Mottner	Center for Excellence in Management Education
Dr. L. Hart Hodges	Center for Economic and Business Research
Pamela Whalley	Center for Economic and Financial Education
Dr. Steven Globerman	Center for International Business
Jennifer Shelton	Small Business Development Center

## Other College Information

### *World Wide Website*

Information concerning admission and application to the College of Business and Economics is available on the World Wide Web at [www.cbe.wvu.edu](http://www.cbe.wvu.edu).

### *Retention*

All majors in the College of Business and Economics (CBE) must maintain good academic standing with the University. A student with a Western Washington University cumulative GPA average below 2.0 will be dismissed from the College and not permitted to take additional courses in the College of Business and Economics until the deficiency is repaired. Students with two successive quarters of a CBE GPA cumulative average below a 2.3 will be subject to dismissal from the College of Business and Economics.

### *Requirements for Bachelor's Degree*

Besides the general requirement for graduation from the University, explained elsewhere in this catalog, CBE has the following specific requirements:

- **At least 50 percent of the business credit hours required for the business degree must be taken at Western Washington University**
- Electives may be selected as needed to ensure the required 180 quarter hours total credit is met, however majors in accounting and business administration must complete a minimum of 90 credits in areas other than accounting and business administration. All CBE courses are considered in the areas of accounting and business administration except DSCI 205, MATH 157, and all economics courses.
- **Communication.** All students must consult their advisor regarding writing proficiency and communications requirements; all CBE majors are required to take one Communication Focus (CF)

course and complete the upper-division Writing Proficiency (WP - 3 points) requirement, both within CBE, prior to graduation

Students are reminded that up to 32 hours of upper-division credit are elective. This provides significant opportunity to include courses in the arts, sciences and humanities. Early discussion with a CBE faculty advisor is strongly encouraged. Students desiring to take two concentrations, two majors, or two degrees must talk with an advisor in CBE for information related to the requirements and restrictions.

**Petitioning Procedure.** Any student who seeks either a variation from the strict application of the rules, regulations or requirements of the College, or a student-designed major from among the departments of the College, may petition the dean.

#### *Special Programs*

**Center for Economic and Financial Education.** The Center for Economic and Financial Education, coordinated by the economics department, is involved in providing economic knowledge, data and teaching aids to the grade schools and high schools throughout the state. Affiliated with the Washington State Council on Economic Education, this center assists in raising the standards of economic literacy of the state.

**Center for Economic and Business Research.** This center undertakes research activities related to developing a better understanding of the economic and business climate of the Pacific Northwest. The center is developing and maintaining an economic database for the area, has developed a regional model that will assist in forecasting certain economic variables for the region, and responds to specific research requests from local public and private entities.

**Center for Excellence in Management Education.** This center, through faculty, student and industry partner involvement, is committed to enhancing teaching and learning in fields of business, economics, and related disciplines in colleges and universities.

**Center for International Business.** The Center for International Business provides opportunities for faculty and students to deepen their understanding of international business management techniques and issues through a variety of activities including lectures and seminars, research projects, course curricula development and field studies.

**Small Business Development Center.** The Small Business Development Center is an appointment based, confidential, business advising service for local business owners. The SBDC director meets with business owners or managers, one-on-one, to work on a variety of business topics such as financing, technology, business plans, marketing & sales, cash flow management, production & operations, human resource concerns, and buying & selling a business.

#### *Departments, Courses and Programs*

Courses listed in this General Catalog constitute a record of the total academic program of the University. For an exact scheduling of courses at Western, students should consult the annual online *Timetable of Classes*, and the *Extended Education Programs Bulletin* on the Web.

The College of Business and Economics also offers the Business Administration Minor administered by the departments of Decision Sciences, Finance & Marketing, and Management.

## **Business Administration Minor**

### **40-42 credits**

#### **Introduction/What is the Study of Business Administration?**

#### **Why Consider a Business Administration Minor?**

## Contact Information

### **CBE Admissions & Scholarships**

Dean's Office  
Parks Hall 419  
360-650-3896  
cbe@wwu.edu

### **Department Chair**

Craig K. Tyran  
Parks Hall 343A  
360-650-2207  
Craig.Tyran@wwu.edu

### **Minor Information:**

#### **Academic Department Manager**

Rachael Scholler  
Parks Hall 343  
360-650-3902  
Rachael.Scholler@wwu.edu

## Sample Careers

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## **How to Declare (Admission and Declaration Process):**

### **Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- DSCI 205 - Business Statistics
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- FIN 341 - Principles of Finance
- MATH 156 - Algebra With Applications to Business and Economics
- MKTG 380 - Principles of Marketing
- MGMT 271 - Law and the Business Environment
- MGMT 311 - Introduction to Management and Organizational Behavior
- MIS 220 - Introduction to Business Computer Systems

# Accounting

[www.cbe.wvu.edu/acct](http://www.cbe.wvu.edu/acct)

## Introduction

Accounting is an important tool used by managers of economic organizations to plan, control and report financial activity. A thorough knowledge of accounting is, therefore, necessary to understand the operation and financial condition of any business, nonprofit organization or governmental agency.

The Department of Accounting offers a broad program of accounting courses that, coupled with required and elective courses in economics and business administration, provides the graduate with a sound educational foundation for an accounting career or post-graduate studies.

The accounting graduate can expect to find employment in a number of areas including private business, public accounting, not-for-profit organizations or governmental units. An accountant in private business or governmental service will typically work in such areas as cost analysis, taxation, auditing, accounting systems or cash management. Careers in public accounting typically involve work in taxation, auditing or management advisory services.

The accounting curriculum also provides a theoretical foundation for students who plan to take examinations to become a Certified Public Accountant (CPA) or a Certified Management Accountant (CMA). Students are urged to consider the variety and breadth of career opportunities available to the accounting graduate when they select their accounting elective courses.

For those students planning to take the CPA exam, the state of Washington requires additional education. Please see the website at [www.cbe.wvu.edu/acct](http://www.cbe.wvu.edu/acct) for details.

## Faculty

**GEORGE D. SANDERS** (1995) Chair and Professor. BS, Louisiana State University; MBA, University of New Orleans; PhD, The University of Alabama; CPA (inactive), state of Louisiana.

**BURAK DOLAR** (2012) Assistant Professor. BA, Istanbul University; MBA, Troy University; PhD, University of Mississippi.

**DAVID L. GILBERTSON** (1998) Associate Professor. BS, University of Southern California; MBA, University of Montana; PhD, University of Utah; CPA, state of Montana; CMA.

**MARGUERITE R. HUTTON** (1989) Professor. BBA, MPA, University of Texas at Arlington; PhD, University of Houston; CPA, states of Texas and Washington.

**STEPHEN V. SENGE** (1985-2000; 2007) Professor. BA, California Western University; MPA, Denver University; MA, DBA, Kent State University; CMA.

**KHIM L. SIM** (2008) Associate Professor. BS, Southeast Missouri State University; MA, Virginia Polytechnic Institute and State University; PhD, Drexel University.

**WILLIAM R. SINGLETON** (1976) Professor. BBA, Memphis State University; MBA, University of Portland; PhD, University of Hawaii; CPA, state of Washington.

**STEVEN H. SMITH** (2001-2008; 2012) Assistant Professor. BBA, Iowa State University; MS, Oklahoma State University; PhD, Arizona State University; CPA states of Iowa and Washington.

**AUDREY G. TAYLOR** (2002) Professor. BA, Smith College; MBA, University of Tennessee; MIE, PhD, Wayne State University; CPA, state of Michigan.

**DANIEL M. WARNER** (1978) Professor. BA, JD, University of Washington; MA, Western Washington University.

## Departmental Mission

The Department of Accounting provides high-quality, balanced accounting education to majors and other undergraduate and graduate students. Quality teaching is our most important function. We engage students in the development of communication, conceptual and technical skills. To exemplify an enthusiasm for professional activity, faculty maintain their own intellectual curiosity and community awareness. Faculty are

# ACCOUNTING

active scholars and contribute positively to students' experience, and to the department, college, university, profession and community service.

Our objectives support the combined mission of teaching, scholarship and service.

## *Teaching*

- Integrate a broad range of accounting skills with an appreciation of ethical, cultural and environmental issues as they relate to accounting and business law.
- Promote oral and written communication, computer, research and group skills.
- Prepare students to become productive accounting and business professionals.
- Review and modify the curriculum to meet changing societal needs.

## *Scholarship*

- Produce, apply and disseminate knowledge in accountancy and business law and in the pedagogy of these disciplines. Faculty are encouraged to pursue scholarly projects that suit their professional talents and interests consistent with the mission of the College of Business and Economics.

## *Service*

- Serve the professional and broader communities.

## **Declaration Process**

See the *College of Business and Economics* introductory section of this catalog for declaration of pre-major and major requirements and procedure.

## **Other Departmental Information**

## **Communication Requirements**

All accounting majors are required to take one communication focus (CF) course and complete the upper-division writing proficiency (WP-3 points) requirement. The CF and WP courses must be taken within CBE and can be completed as part of the required and elective courses. Consult the online Timetable of Classes for the specific course sections that fulfill the CF and WP requirements.

# **Bachelor of Arts**

## **Accounting, BA**

Department of Accounting, College of Business and Economics

### **96-98 credits**

### **Introduction/What is the Study of Accounting?**

Accounting is an important tool used by managers of organizations to plan, control and report financial activity. A thorough knowledge of Accounting is necessary to understand the operation and financial condition of any business, non-profit organization or governmental agency. In addition, the Accounting curriculum provides a foundation for students who plan to take examinations to become a Certified Public Accountant (CPA) or Certified Management Accountant (CMA).

### **Why Consider an Accounting Major?**

The Accounting major offers a broad program of accounting courses, which coupled with required and elective courses in Economics and Business Administration, provides the graduate with a sound foundation for an accounting career or post-graduate studies. The Accounting graduate can expect to find employment in a number of areas including private business, public accounting, not-for-profit organizations or governmental

units. Typical work may include areas such as cost analysis, taxation, auditing, accounting systems, taxation or cash management.

#### Contact Information

##### **CBE Admissions & Scholarships**

Dean's Office  
Parks Hall 419  
360-650-3896  
cbe@wwu.edu

##### **Department Chair**

Professor George Sanders  
Parks Hall 451A  
360-650-4811  
George.Sanders@wwu.edu

##### **Major Information:**

**Academic Department Manager**  
Marty Hitchcock  
Parks Hall 451  
360-650-3202  
Marty.Hitchcock@wwu.edu

#### Sample Careers

Certified Public Accountant | Revenue Agent | Auditor | Fraud Examiner | Cost Analyst | Estate Planner | Controller | FBI Agent

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

**Pre-major:** Students, who have confirmed admission to WWU, are in good academic standing with the University, have completed 45 credits and earned a GPA of 2.5 overall or 2.75 in the foundation courses they have completed, will be granted pre-major status. Pre-majors automatically become full majors upon completion of the minimum requirements.

**Full major:** Students must have completed the following requirements:

- Confirmed admission to WWU and have 45 credits or be in the CBE Distinguished Scholars program.
- Be in good academic standing with the University and meet one of the following GPA requirements:
  - Either:** 1) a minimum GPA of 2.75 in the eight Foundation Courses listed below, including grades from transfer courses and Advanced Placement credit **or** 2) a cumulative GPA of at least 2.50 in all college-level course work including transfer work.

**Provisional major:** Major status is granted provisionally to students who are completing their last foundation course(s) and would be eligible for full major status upon successful completion of their current course work.

**How to apply:** For consideration as a pre-major, provisional major or full major, complete the online application form at: <http://cbe.wwu.edu/cbe/students/application.shtml>.

**Advising tips:** 1) Complete MATH 157 and DSCI 205 requirements early; 2) For information regarding the MIS 220 Equivalency Exam see the Department of Decision Sciences website for test-out information: <http://cbe.wwu.edu/dsci/mis-testout.shtml>; 3) Meet with your faculty advisor (assigned following admission to the major).

### **Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

##### Foundation Courses

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- DSCI 205 - Business Statistics
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- MATH 157 - Calculus With Applications to Business and Economics
- MGMT 271 - Law and the Business Environment



# ACCOUNTING

- MIS 220 - Introduction to Business Computer Systems (or equivalent)

## Accounting Core Courses

- ACCT 341 - Intermediate Accounting Theory and Practice I
- ACCT 321 - Accounting Information Systems I
- ACCT 342 - Intermediate Accounting Theory and Practice II
- ACCT 375 - Income Taxation I
- ACCT 343 - Intermediate Accounting Theory and Practice III
- ACCT 331 - Cost Management
- ACCT 461 - Auditing Theory and Practice
- ACCT 470 - Law of Commercial Transactions

## Business Core Courses

- FIN 341 - Principles of Finance
- MGMT 311 - Introduction to Management and Organizational Behavior
- MGMT 382 - Business and Its Environment
- MKTG 380 - Principles of Marketing
- OPS 360 - Operations Management

## Advanced Business Core Courses

- One course from:
  - MGMT 492 - Entrepreneurial Problems
  - MGMT 495 - Strategic Management
- 12 upper-division accounting credits under advisement
- Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP) at WWU with a minimum grade of C-. The CF and WP courses must be taken within CBE and can be completed as part of the above required and elective courses, prior to graduation. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements
- Accounting and Business majors must complete a minimum of 90 credits in areas other than accounting and business administration.

## **Economics/Accounting, BA (see Economics Department)**

Economics/Accounting, BA (see Economics Department)

## **Master of Professional Accounting**

### **Professional Accounting, Non-Thesis, MPAcc**

*College of Business & Economics*

For further information contact the Department of Accounting, Western Washington University, 516 High Street, Bellingham, WA 98225, Phone: (360) 650-3202, Email: [marty.hitchcock@wwu.edu](mailto:marty.hitchcock@wwu.edu)

### **Graduate Faculty**

**Gilbertson, David L.**, PhD, auditing/financial accounting.

**Hutton, Marguerite R.**, PhD, taxation.

**Sanders, George D.**, PhD, financial/governmental accounting.

**Senge, Stephen V.**, DBA, financial reporting.

**Sim, Khim L.**, PhD, managerial accounting.

**Singleton, William R.**, PhD, taxation.

**Smith, Steven H.**, PhD, financial accounting.

**Taylor, Audrey**, PhD, managerial accounting.

**Warner, Daniel M.**, JD, business law.

Graduate Program Office, Parks Hall 419, 360-650-3898

E-mail: Marty.Hitchcock@wwu.edu; fax: 360-650-4844

Program Advisor: Dr. Stephen V. Senge

Department of Accounting: Dr. George D. Sanders, Chair

## Accreditation

The College of Business and Economics is accredited by the AACSB International-The Association to Advance Collegiate Schools of Business at both the graduate and undergraduate levels.

## Goals

The MPAcc program is a 48-credit graduate degree to be completed in three quarters. It is designed to:

- Provide opportunities for students to improve their expertise in a field that is rapidly becoming more complex.
- Provide students with an opportunity to acquire the knowledge and skills required in Washington for professional licensing as CPAs.
- Help meet the demand in Washington for well-trained professional accountants.

## Admission and Prerequisites

- A bachelor's degree with an accounting emphasis from an AACSB-accredited business school is required for admission to the program.
- A minimum 3.0 GPA (on a 4.0 scale) in the last 90-quarter or 60-semester hours of study.
- A minimum 3.2 GPA (on a 4.0 scale) in upper-division accounting courses.
- Applicants must demonstrate an ability to communicate effectively and to reason analytically, logically, and creatively.
- Students must achieve an acceptable score on the Graduate Management Admissions Test (GMAT). Applicants who are not native English speakers must submit an acceptable TOEFL or IELTS score.

## Application Information

- Official application form to the Graduate School
- Official Transcripts (1 from each institution attended, unless applicant is a WWU Student).
- GMAT scores and, if applicable, TOEFL or IELTS scores.
- Personal statement, including background and intention.
- Résumé showing work experience.
- Review of application begins on February 15 and continues until spaces are filled.

**To apply for admission, send the application and supporting documents to the Graduate School. Further information is provided in the Graduate School section of this catalog.**

Program Requirements (48 credits)

Core Curriculum

- MPAC 565 - Special Topics in Accounting
- At least 4 credits of MPAC 595 - Accounting Colloquium
- At least 20 credits from the following courses, \*under advisement:  
\*(Course availability may vary from year to year)
- MPAC 521 - Seminar in Accounting Information Systems

## ACCOUNTING

- MPAC 531 - Accounting Communications
  - MPAC 535 - Seminar in Management Accounting
  - MPAC 541 - Seminar in Advanced Financial Accounting
  - MPAC 543 - Financial Accounting Research & Communication
  - MPAC 545 - Seminar in Accounting Theory
  - MPAC 547 - Seminar in Government and Not-For-Profit Accounting
  - MPAC 551 - Seminar in International Accounting
  - MPAC 561 - Seminar in Professional Auditing
  - MPAC 566 - Seminar in Fraud Examination & Forensic Accounting
  - MPAC 571 - Seminar in Law for Accountants
  - MPAC 575 - Seminar in Taxation
  - MPAC 577 - Tax Research, Planning, and Policy
  - MPAC 581 - Ethics and Accountability
  - MPAC 585 - Sustainability Accounting and Reporting
  - Up to 4 credits of MPAC 590 - Internship in Professional Accounting
- At least 20 additional credits of MPAC, MBA, or other courses, chosen under advisement

### Integrated 3+2 BA/MPAcc Option

This option makes it possible for exceptional undergraduate accounting majors to enter the MPAcc program at the beginning of their senior year, and complete both a B.A. in Accounting and a Master of Professional Accounting in at most 5 years of study. Students interested in this program are encouraged to consult with their advisor early in their junior year.

### Eligibility & Admission

Applications are due during the first week of spring quarter, and admission decisions will be made shortly thereafter. To be eligible the student must have, at the time of application:

- Completed at least 110 undergraduate credits with an overall GPA of 3.0 or better.
- Completed at least 16 upper-division accounting credits, including ACCT 342, with a GPA of at least 3.2.
- Demonstrated an ability to communicate effectively, and to reason analytically, logically, and creatively.
- Recommendations from at least two WWU accounting faculty.

This program is highly selective; eligibility does not guarantee admission.

### **Requirements for the 3+2 Option:**

Candidates are conditionally admitted to the MPAcc at the time of acceptance into the integrated 3+2 program. At the end of the fourth year, conversion to full graduate status is granted by the Graduate School upon the recommendation of the MPAcc committee, provided that the candidate has:

- Been awarded the undergraduate degree.
- Maintained an acceptable GPA in all courses taken.
- Obtained an acceptable score on the GMAT.
- Met all the Graduate School application requirements.

All of the requirements for the MPAcc (listed above) must be fulfilled, except that only 36 graduate credits are required beyond the baccalaureate degree.

### Additional Information

Information on the MPAcc program is available in the College of Business and Economics, Accounting section of this catalog.

## Minor

### Accounting Minor

Department of Accounting, College of Business and Economics

#### 24 credits

#### Introduction/What is the Study of Accounting?

The Department of Accounting's minor is open by special permission to students whose majors would be complemented by an accounting minor and who have completed prerequisites for the courses comprising the minor.

#### Why Consider an Accounting Minor?

Contact Information		
<b>CBE Admissions &amp; Scholarships</b>	<b>Department Chair</b>	<b>Minor Information:</b>
Dean's Office	Professor George Sanders	<b>Academic Department Manager</b>
Parks Hall 419	Parks Hall 451A	
360-650-3896	360-650-4811	
cbe@wwu.edu	George.Sanders@wwu.edu	
Sample Careers		

Major/Career Resources
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>

#### How to Declare (Admission and Declaration Process):

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- ACCT 331 - Cost Management
- One course from:
  - ACCT 341 - Intermediate Accounting Theory and Practice I
  - ACCT 375 - Income Taxation I
- 8 additional credits in accounting under advisement

## Accounting Courses

### ACCT 240 - Financial Accounting

An introduction to the theory and practice of accounting and financial reporting. Topics include the accounting cycle, financial statements and

accounting for assets, liabilities, equities, revenues and expenses.

Credits: 4

# ACCOUNTING

## **ACCT 245 - Managerial Accounting**

An introduction to the use of accounting information by managers. Topics include the use of accounting information for planning and control, performance evaluation, decision-making, and the statement of cash flows, along with financial statement analysis.

**Prerequisites & Notes:** ACCT 240  
Credits: 4

## **ACCT 321 - Accounting Information Systems I**

An introduction to the subject of information system's role in accomplishing the objectives of financial accounting, managerial accounting, tax accounting and auditing. Systems covered include manual accounting, computerized accounting, and Internet electronic commerce applications. Additional topics include internal controls, systems analysis, systems design and systems implementation.

**Prerequisites & Notes:** Majors only. ACCT 245, MIS 220 or equivalent skills  
Credits: 4

## **ACCT 331 - Cost Management**

Procedures used for classifying, recording, summarizing and allocating current, and estimated costs for planning, controlling and reporting purposes.

**Prerequisites & Notes:** Majors only. ACCT 245, DSCI 205, MIS 220 or equivalent skills.  
Credits: 4

## **ACCT 341 - Intermediate Accounting Theory and Practice I**

An in-depth study of accounting theory and practice for students who require more than introductory coverage. Both conceptual and application topics are studied.

**Prerequisites & Notes:** Majors Only. ACCT 245  
Credits: 4

## **ACCT 342 - Intermediate Accounting Theory and Practice II**

A continuation of ACCT 341 covering complex topics in accounting and financial reporting.

**Prerequisites & Notes:** Majors Only. ACCT 341  
Credits: 4

## **ACCT 343 - Intermediate Accounting Theory and Practice III**

A continuation of ACCT 342 covering complex topics in accounting and financial reporting. Special topics, existing and emerging issues in accounting.

**Prerequisites & Notes:** Majors Only. ACCT 342  
Credits: 4

## **ACCT 375 - Income Taxation I**

Taxation of individuals and sole proprietorships. Introduction to tax planning and sources of authority of tax law.

**Prerequisites & Notes:** Majors Only. ACCT 240  
Credits: 4

## **ACCT 421 - Accounting Information Systems II**

Principles and techniques of database technology as applied to modern accounting information systems, uses of database technology for transaction processing and analysis. Systems documentation techniques and the auditing of computerized accounting systems. Format will be lecture, discussion, computer presentations and computer lab assignments.

**Prerequisites & Notes:** Majors Only. ACCT 321  
Credits: 4

## **ACCT 431 - Topics in Management Accounting**

Focuses on responsibility accounting, performance measurement and evaluation, and budgeting and control in various types of organizations. Additional topics may include quantitative methods in decision making and other current issues in management accounting.

**Prerequisites & Notes:** Majors Only. ACCT 331  
Credits: 4

## **ACCT 435 - Seminar in Cost Management**

Provides an in-depth study of cost management systems. Topics include activity-based management, Japanese cost management techniques, and strategic cost management.

**Prerequisites & Notes:** Majors Only. ACCT 331  
Credits: 4

**ACCT 441 - Advanced Accounting Theory and Practice**

An introduction to business combinations and fund accounting. Partnerships, SEC reporting, interim reports and other topics.

**Prerequisites & Notes:** Majors Only. ACCT 343  
Credits: 4

**ACCT 443 - Financial Accounting Research & Communication**

A detailed analysis of Financial Accounting Standards via the FASB Accounting Standards Codification (and proposed changes) for measuring, recording, and reporting business transactions that underlie the preparation of an enterprise's financial statements and disclosures. Emphasis will be on written and oral assignments that develop communication skills for the accounting profession.

**Prerequisites & Notes:** Majors only. ACCT 343.  
Credits: 4

**ACCT 444 - Financial Statement Presentation and Analysis**

Study of reporting issues from a management perspective. Introduction to the tools and techniques of financial statement analysis. Use of financial statements by external and internal decision makers. Emphasis on the development of communication and computer skills.

**Prerequisites & Notes:** Majors only. ACCT 343.  
Credits: 4

**ACCT 447 - Accounting in Not-For-Profit Organizations**

An examination of accounting and financial reporting in governmental and not-for-profit entities and an introduction to the use of accounting information in the management of these organizations.

**Prerequisites & Notes:** Majors Only. ACCT 343 or concurrent.  
Credits: 4

**ACCT 451 - International Accounting**

Analysis of accounting for multinationals; area studies of accounting and financial reporting standards; and an evaluation of the international accounting harmonization effort.

**Prerequisites & Notes:** Majors Only. ACCT 343  
Credits: 4

**ACCT 461 - Auditing Theory and Practice**

A study of the role of auditing and auditors in corporate financial reporting, and the importance of this role to the public. Topics covered include the audit planning process, audit reports, professional standards, and the legal and ethical responsibilities of auditors to their clients, the accounting profession and to the public.

**Prerequisites & Notes:** Majors Only. ACCT 321, ACCT 343  
Credits: 4

**ACCT 462 - Advanced Auditing**

In-depth exposure to a variety of aspects of the theory and practice of professional auditing. Topics may include auditing theory and research, economic function of audits, professional standards and malpractice, new auditing techniques and services. Cases, readings, individual research, and discussion.

**Prerequisites & Notes:** Majors Only. ACCT 461  
Credits: 4

**ACCT 466 - Seminar in Fraud Examination & Forensic Accounting**

This course examines many different aspects of fraud: what it is and the types of people more likely to commit it, how to recognize the symptoms of fraud, and how to investigate it. As such, the course will focus on topics such as internal control, financial reporting fraud, fraud detection and deterrence.

**Prerequisites & Notes:** Majors only. ACCT 321 and ACCT 343.  
Credits: 4

**ACCT 470 - Law of Commercial Transactions**

Legal principles underlying the law of contracts, sales, secured transactions, real property security,

## ACCOUNTING

bankruptcy and suretyship.

**Prerequisites & Notes:** Majors Only. MGMT 271  
Credits: 4

### **ACCT 475 - Income Taxation II**

Taxation of corporations and partnerships.  
Advanced topics in tax planning and compliance.

**Prerequisites & Notes:** Majors Only. ACCT 375  
Credits: 4

### **ACCT 477 - Tax Research and Planning**

An in-depth look at tax research and tax planning.  
Students will gain proficiency in tax research and  
apply this skill to a variety of federal taxation  
issues and case studies.

**Prerequisites & Notes:** Majors Only. ACCT 375  
Credits: 4

### **ACCT 484 - Environmental Accounting/ Sustainability Reporting**

An in-depth analysis of accounting for the natural  
environment. Readings, discussion and case  
analyses cover current issues, such as financial  
reporting and disclosure, management decision  
making and evaluation techniques, taxation and  
the profession's role in environmental issues.

**Prerequisites & Notes:** Majors Only. ACCT 331,  
ACCT 343, ACCT 375 or concurrent.  
Credits: 4

### **ACCT 490 - Internship in Accounting**

Practical application of academic curriculum  
beyond that contained in normal undergraduate  
course work. Internship may not be substituted for  
a required or elective accounting course.

**Prerequisites & Notes:** Majors Only. ACCT 341;  
minimum 2.75 GPA in 300/400-level accounting  
courses  
Credits: 1-2  
Grade Mode: S/U

## Master of Professional Accounting Courses

### **MPAC 521 - Seminar in Accounting Information Systems**

A seminar designed to study elements of  
accounting information systems, including  
technological aspects. The content includes a  
combination of theory and practical application.  
Conceptual modeling, implementation of  
accounting transaction processing systems,  
enterprise value chains, business processes,  
documentation, and control requirements are  
emphasized.

**Prerequisites & Notes:** ACCT 321 or equivalent.  
Credits: 4

### **MPAC 531 - Accounting Communications**

This course will focus on developing skills for  
communication as a professional accountant in an  
organizational setting and is intended to enhance  
the experience of students enrolled in MPAcc 590,  
Internship in Professional Accounting. This is an  
online course that includes student-led discussions,  
team tasks, reflective journaling, and a variety of  
other individual assignments aimed at enhancing  
communication skills in a professional accounting  
setting. Short readings will cover organizational  
communications research applicable to accounting  
firms.

Credits: 4

### **MPAC 535 - Seminar in Management Accounting**

Using cases, students will gain the analytical skills  
needed to both implement well designed  
management systems, and to evaluate the  
strengths and weaknesses of existing systems.  
Topics will include budgeting, resource allocation,  
performance measurement, evaluation and reward,  
change management, and transfer pricing.

**Prerequisites & Notes:** ACCT 331 or equivalent.  
Credits: 4

### **MPAC 541 - Seminar in Advanced Financial Accounting**

This course develops accounting skills for business combinations, consolidated financial statements, partnerships, corporate reorganizations, segment reporting, and foreign currency financial statements. Critical thinking, teamwork, and communications skills will be emphasized along with current technology used in accounting practice.

**Prerequisites & Notes:** ACCT 343 or equivalent.  
Credits: 4

**MPAC 543 - Financial Accounting Research & Communication**

A detailed analysis of Financial Accounting Standards via the FASB Accounting Standards Codification (and proposed changes) for measuring, recording, and reporting business transactions that underlie the preparation of an enterprise's financial statements and disclosures. Emphasis will be on written and oral assignments that develop communication skills for the accounting profession.

**Prerequisites & Notes:** Graduate (MPAC) status.  
ACCT 343 or equivalent.  
Credits: 4

**MPAC 545 - Seminar in Accounting Theory**

A study of accounting theory underlying current practice. This course is designed to develop awareness of and ability to utilize knowledge including significant historical components, key stakeholders and their issues, political and regulatory processes, and critical perspectives on accounting and its role in society.

**Prerequisites & Notes:** ACCT 343 or equivalent.  
Credits: 4

**MPAC 547 - Seminar in Government and Not-For-Profit Accounting**

This course introduces the basics of accounting and financial reporting for governmental and not-for-profit entities. The course also discusses the social, legal, political and regulatory environment of governmental financial reporting and how these factors have influenced nonprofit and governmental accounting.

**Prerequisites & Notes:** Graduate (MPAC) Status.

ACCT 343 or concurrent; or equivalent.  
Credits: 4

**MPAC 551 - Seminar in International Accounting**

This course explores how various accounting topics and issues are addressed within an international context, including a comparative analysis of accounting measurement, disclosure and financial reporting requirements in different countries within the framework of global harmonization efforts. In addition, the impact of accounting issues on multinational business operations is discussed and students will study a 'non-home' country in depth.

**Prerequisites & Notes:** ACCT 343 or equivalent.  
Credits: 4

**MPAC 561 - Seminar in Professional Auditing**

Provides in-depth exposure to a variety of aspects of the theory and practice of professional auditing. Topics may include auditing philosophy, history and research; economic function of audits; professional standards and malpractice; new auditing techniques and services. Activities include cases, readings, individual research and discussion.

**Prerequisites & Notes:** ACCT 461 or equivalent.  
Credits: 4

**MPAC 565 - Special Topics in Accounting**

This is an advanced course in accounting that examines a broad range of issues that are of current concern to both the accounting profession and users of accounting information. The course content will vary to provide opportunities to study current issues in accounting.

Credits: 4

**MPAC 566 - Seminar in Fraud Examination & Forensic Accounting**

This course examines many different aspects of fraud: what it is and the types of people more likely to commit it, how to recognize the symptoms of fraud, and how to investigate it. As such, the course will focus on topics such as internal control, financial reporting fraud, fraud detection and deterrence.



# ACCOUNTING

**Prerequisites & Notes:** Graduate (MPAC) status. ACCT 321 and ACCT 343; or equivalent.  
Credits: 4

## **MPAC 571 - Seminar in Law for Accountants**

Using cases, texts, lecture and discussion, students examine legal issues important to accountants, including: administrative law-making; agency, business organizations; negotiable instruments, bank deposits, intellectual property; aspects of real and personal property security, bankruptcy; lobbying and campaign finance regulations; and accountants' professional liability.

**Prerequisites & Notes:** ACCT 470 or equivalent.  
Credits: 4

## **MPAC 575 - Seminar in Taxation**

Tax from a managerial perspective, with emphasis on the identification and examination of tax problems and potential tax opportunities. Students will examine the choice of different business entities for tax purposes, compensation and succession planning, and tax planning for investments.

**Prerequisites & Notes:** ACCT 375 or equivalent.  
Credits: 4

## **MPAC 577 - Tax Research, Planning, and Policy**

An in-depth look at tax research and tax planning, including the political and social issues which affect taxation. Students will gain proficiency in tax research and apply this skill to a variety of federal taxation issues and case studies. The use of technology is a vital component of this course, as is communication.

**Prerequisites & Notes:** Graduate (MPAC) status. ACCT 375 or equivalent.  
Credits: 4

## **MPAC 581 - Ethics and Accountability**

This is a capstone course in the MPAcc program introducing ethical systems used for decision making and public reporting taken from a professional accounting perspective and integrating notions of entity social responsibility with a global business perspective.

Credits: 4

## **MPAC 585 - Sustainability Accounting and Reporting**

Through reading several books and examining some Triple Bottom Line (TBL)-related websites in detail, course participants will study the overall themes and examples of TBL offered by various authors and organizations. Our directed conversations will focus on an analysis and synthesis of these themes, the credibility the proposals and attempts, and the general applicability of the TBL concept.

**Prerequisites & Notes:** ACCT 343 or equivalent.  
Credits: 4

## **MPAC 590 - Internship in Professional Accounting**

Practical application of academic curriculum beyond that contained in graduate coursework. A one quarter internship under supervision with an approved certified public accounting firm, business entity, not-for-profit organization, or government agency. Repeatable up to 12 credits, including original course. S/U grading.

**Prerequisites & Notes:** Approval of the Internship Coordinator.

Credits: 2-12  
Grade Mode: S/U

## **MPAC 595 - Accounting Colloquium**

Seminar and discussion of various topics, focusing on issues of current concern to the accounting profession. Will include presentations by faculty, students and accounting professionals. Repeatable up to 10 credits, including original course.

**Prerequisites & Notes:** Graduate (MPAC) status.  
Credits: 1-2

# Decision Sciences

## Introduction

The Department of Decision Sciences (DSCI) provides the opportunity for study in two related fields of business administration: Management Information Systems (MIS) and Operations Management (OPS). Additional course work is provided in Quantitative Methods. These fields cover a variety of responsibilities in both public and private organizations. Graduates from the decision sciences department will have completed a broad business program plus a wide range of nonbusiness subjects, reflecting the department's belief that education should prepare students for satisfying achievements in life as well as business.

## Program Objectives

Departmental programs have been designed to prepare students for leadership roles in business and the community. The educational objectives of the department are to:

- Offer innovative undergraduate and graduate curricula that reflect state-of-the-art knowledge in our areas of expertise
- Prepare students with the necessary skills and knowledge for professional careers
- Provide students with opportunities to improve their communication, team, and problem-solving skills to work effectively with different organizations and cultures
- Encourage students to develop critical thinking skills and an appreciation of intellectual inquiry
- Contribute to our disciplines by creating, publishing and presenting significant scholarly research in the individual fields
- Provide professional services to regional, national, and international academic institutions, businesses, professional organizations, and government agencies
- Encourage and support student professional organizations

## Faculty

**CRAIG K. TYRAN** (2001) Chair and Professor. BS, MS, Stanford University; MBA, UCLA Graduate School of Management; PhD, University of Arizona.

**DEEPIK S. BAJWA** (1999) Professor. BE, University of Mysore; MBA, PhD, Southern Illinois University at Carbondale.

**PETER HAUG** (1986) Professor. BA, State University of New York at Fredonia; MA, University of Maine; MBA, College of William & Mary; MPhil, University of Edinburgh; PhD, University of Washington.

**STELLA HUA** (2002) Associate Professor. BS, Shanghai Jiao Tong University; MBA, Baylor University; PhD, University of Wisconsin-Madison.

**ILHYUNG KIM** (2004) Associate Professor. BS, MS, Seoul National University; MBA, Oregon State University; PhD, University of California, Los Angeles.

**L. FLOYD LEWIS** (1983) Professor. BA, California State University, Sacramento; MS, San Jose State University; PhD, University of Louisville.

**J. CHRISTOPHER SANDVIG** (2001) Associate Professor. BS, University of Oregon; MBA, UCLA Graduate School of Management; PhD, University of Washington.

**MARK C. SPRINGER** (1987) Professor. BA, University of Cincinnati; MBA, PhD, Vanderbilt University.

**ZHE GEORGE ZHANG** (2000) Professor. BS, MA, Nankai University; MBA, York University; PhD, University of Waterloo.

## Senior Instructors

**DAVID J. AUER** (1994) Senior Instructor. BA University of Washington; BA, MA & MS Western Washington University.

**STEVEN H. GANZ** (2001) Senior Instructor. BA, University of California Santa Barbara; MSc, University of

## DECISION SCIENCES

Alberta; MBA, Western Washington University.

**KRAIG K. PENCIL** (1999) Senior Instructor. BA, Occidental College; MBA, Western Washington University.

**LEE E. McCLAIN** (1991) Senior Instructor. BA, MA, University of Missouri-Columbia; MBA, University of Pennsylvania.

**BRIAN L. MORGANS** (2012) Senior Instructor. BS, University of Washington; MBA Western Washington University.

**SIPING (SUE) SU** (2012) Senior Instructor. BA, Nankai University, Tianjin, China; MS University of Waterloo, Ontario, Canada.

### Departmental Mission

The mission of the Department of Decision Sciences is to advance and disseminate knowledge in management information systems, manufacturing and supply chain management, and quantitative methods. The DSCI department provides high-quality educational programs, publishes theoretical and applied research, and serves university, professional, and community organizations.

### Declaration Process

See the *College of Business and Economics* introductory section in this catalog for declaration of pre-major and major requirements and procedures. Applicants who have at least a 2.5 or higher cumulative GPA in all college-level course work or at least a 2.75 or higher GPA in the equivalent of the foundation courses (except Manufacturing and Supply Chain Management majors) will be assured of admission if space is available in the department program of choice.

### Other Departmental Information

#### ***The Curriculum***

Development of the department's curriculum has been guided by the standards of the AACSB International—the Association to Advance Collegiate Schools of Business. Students normally devote most of the freshman and sophomore years of study to completion of the General University Requirements (GURs) and the business administration major foundation courses. Several foundation courses satisfy GURs, and careful planning can save time for additional elective course work. Electives that emphasize oral and written communication skills are particularly recommended.

The junior and senior years are devoted primarily to upper-division core requirements and elective course work. The Department of Decision Sciences offers two degrees: a Bachelor of Arts in Business Administration and a Bachelor of Science in Manufacturing and Supply Chain Management. Within the BA in Business Administration, students may choose to concentrate their major electives in management information systems or operations management. Students who wish to complete a concentration must pay close attention to class scheduling because of prerequisites and limited offerings of some courses.

#### ***Certificate in Website Management***

Students concentrating in MIS may also be interested in earning a Certificate in Website Management through WWU's Internet Studies Center. Two of the six courses required for the certificate may be used as MIS concentration elective courses. More information about the certificate can be found on the ISC website, <http://yorktown.cbe.wvu.edu/ISC/>.

#### ***Business Applications Software***

The use of personal computer systems to assist in data management, analysis and reporting of results is widespread in the curriculum of the Department of Decision Sciences. Students are expected to have some proficiency in word processing, spreadsheet and database software at the time they enter upper-division decision sciences classes. This proficiency can be gained through several means, including formal class work

at a university or community college, work experience, or commercially offered classes. Proficiency can also be demonstrated by passing an exam which is offered for this purpose each quarter. Students who have not otherwise gained these skills are expected to register in MIS 220 prior to their registration in DSCI 305 or MIS 320.

### ***Communications Requirements***

All business majors must satisfy the upper-division writing proficiency requirement of the university (see University Graduation Requirements) and complete one communications focus (CF) course prior to graduation. These requirements must be satisfied by taking courses within the College of Business and Economics. Consult the online Timetable of Classes for the specific course sections that fulfill the CF and WP requirements. The requirements normally may be met by taking designated sections of required core or concentration courses, but may be met by taking other designated CBE course as well.

### ***Student Advising***

For answers to routine questions concerning preparation and progress through the major, students should consult the decision sciences department **Planning Guide**, available in the Academic Advising Center (OM 380) or online through the CBE website: <http://cbe.wvu.edu/>. Non-routine questions should be directed to the academic department manager. Questions concerning individual areas of study should be directed to faculty who teach in that area. After the declaration of a major, a student will be assigned a faculty adviser with whom the student must consult concerning mandatory and elective courses in the chosen major and concentration. The faculty adviser may also be a source of information concerning career objectives and opportunities.

### ***Enrollment Priorities***

Because of high student demand for many business administration program courses, the department must give enrollment priority to students for whom these courses are requirements rather than electives. Priority is given to majors in CBE and other declared majors for whom the classes are required.

## **Bachelor of Arts**

### **Business Administration — Management Information Systems Concentration, BA**

Department of Decision Sciences, College of Business and Economics

#### **88-90 credits**

#### **Introduction/What is the Study of Business Administration?**

The Business Administration program has been designed to prepare students for leadership roles in business and the community. One program objective is to provide students with the perceptual and analytical skills necessary in making decisions and evaluating policy in business; another is to develop student understanding of the social, economic and regulatory environment of business. The program is designed for students with a variety of career goals, including opportunities with financial institutions, manufacturing and retail firms, service industries and the public sector.

#### **Why Consider a Management Information System (MIS) Concentration in the Business Administration Major?**

MIS majors learn how information technology can contribute to an organization and how to develop and apply information technology-based business solutions. The strength of an MIS major lies in his/her ability to

## DECISION SCIENCES

combine an understanding of business with the knowledge of information systems and technology to help organization compete more successfully or streamline current operations. MIS professionals are involved in growth technologies, such as decision support, e-business, database development, client server systems, and development of web-based technologies for electronic commerce.

### Contact Information

#### CBE Admissions & Scholarships

Dean's Office  
Parks Hall 419  
360-650-3896  
cbe@wwu.edu

#### Department Chair

Craig K. Tyran  
Parks Hall 343A  
360-650-2207  
Craig.Tyran@wwu.edu

#### Major Information:

#### Academic Department Manager

Rachael Scholler  
Parks Hall 343  
360-650-3902  
Rachael.Scholler@wwu.edu

### Sample Careers

Systems Analyst | Computer Systems Manager | Software Test Analyst | Administrator | Database Administrator | Software Developer | Business Analyst | Website Developer

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

**Pre-major:** Students, who have confirmed admission to WWU, are in good academic standing with the University, have completed 45 credits and earned a GPA of 2.5 overall or 2.75 in the foundation courses they have completed will be granted pre-major status. Pre-majors automatically become full majors upon completion of the minimum requirements.

**Full major:** Students must have completed the following requirements:

- Confirmed admission to WWU and have 45 credits or be in the CBE Distinguished Scholars program.
- Be in good academic standing with the University and meet one of the following GPA requirements:  
**Either:** 1) a minimum GPA of 2.75 in the eight Foundation Courses listed below, including grades from transfer courses and Advanced Placement credit **or** 2) a cumulative GPA of at least 2.50 in all college-level course work including transfer work.

**Provisional major:** Major status is granted provisionally to students who are completing their last foundation course(s) and would be eligible for full major status upon successful completion of their current course work.

**How to apply:** For consideration as a pre-major, provisional major or full major, complete the online application form at: <http://cbe.wwu.edu/cbe/students/application.shtml>.

**Advising tips:** 1) Complete MATH 157 and DSCI 205 requirements early; 2) For information regarding the MIS 220 Equivalency Exam see the Department of Decision Sciences website for test-out information: <http://cbe.wwu.edu/dsci/mis-testout.shtml>; 3) Meet with your faculty advisor (assigned following admission to the major).

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

#### Foundation Courses

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- DSCI 205 - Business Statistics
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics

- MATH 157 - Calculus With Applications to Business and Economics
- MGMT 271 - Law and the Business Environment
- MIS 220 - Introduction to Business Computer Systems

#### Core Courses

- DSCI 305 - Applied Business Statistics
- FIN 341 - Principles of Finance
- MGMT 311 - Introduction to Management and Organizational Behavior
- MGMT 382 - Business and Its Environment
- MIS 320 - Principles of Management Information Systems
- MKTG 380 - Principles of Marketing
- OPS 360 - Operations Management

#### Advanced Core Courses

- MGMT 495 - Strategic Management

#### MIS Concentration Courses

- MIS 321 - Systems Analysis and Design
- MIS 322 - Business Applications Development
- MIS 421 - Business Database Development
- MIS 495 - Corporate Information Systems Management

##### One course from:

- MGMT 313 - Teamwork Basics
- MIS 492 - Systems Implementation Project
- OPS 461 - Project Management

##### Select 8 credits from:

- ACCT 421 - Accounting Information Systems II
- OPS 461 - Project Management
- Upper division MIS courses

Other upper-division courses (including computer science) may be possible under advisement

##### Familiarity with an additional programming language highly recommended

Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP) at WWU with a minimum grade of C-. The CF and WP courses must be taken within CBE and can be completed as part of the above required and elective courses, prior to graduation. Consult the Timetable of Classes for the specific course sections that fulfil the CF and WP requirements.

Accounting and Business majors must complete a minimum of 90 credits in areas other than accounting and business administration.

NOTE: All MIS students must take MIS 322 - CSCI 140 is not an acceptable substitute. Students should talk to their advisors about other CSCI courses that may be appropriate as a second programming language.

## **Business Administration – Operations Management Concentration, BA**

Department of Decision Sciences, College of Business and Economics

### **88-90 credits**

#### **Introduction/What is the Study of Business Administration?**

The Business Administration program has been designed to prepare students for leadership roles in business and the community. One program objective is to provide students with the perceptual and analytical skills

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necessary in making decisions and evaluating policy in business; another is to develop student understanding of the social, economic and regulatory environment of business. The program is designed for students with a variety of career goals, including opportunities with financial institutions, manufacturing and retail firms, service industries and the public sector.

### **Why Consider an Operations Management (OPS) Concentration in the Business Administration Major?**

Operations management is the direction and control of the processes within an organization. Operations managers are concerned with each step in providing a service or product – from acquisition of the raw materials and component parts to delivery to the customer. They determine what equipment, labor, tools, facilities, materials, energy, and information are required, how these can best be obtained, and how they are used to satisfy the requirements of the market place. Managers are also responsible for critical activities such as quality management and control, capacity planning, materials management, purchasing, and scheduling.

Contact Information		
<b>CBE Admissions &amp; Scholarships</b>	<b>Department Chair</b>	<b>Major Information:</b>
Dean's Office	Craig K. Tyran	<b>Academic Department Manager</b>
Parks Hall 419	Parks Hall 343A	Rachael Scholler
360-650-3896	360-650-2207	Parks Hall 343
cbe@wwu.edu	Craig.Tyran@wwu.edu	360-650-3902
		Rachael.Scholler@wwu.edu

**Sample Careers**  
Production Supervisor | Quality Control Specialist | Inventory Control Specialist | Administrator | Operations Manager | Buyer | Supply Chain Consultant | Logistics Manager

**Major/Career Resources**  
[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

**Pre-major:** Students, who have confirmed admission to WWU, are in good academic standing from the University, have completed 45 credits and earned a GPA of 2.5 overall or 2.75 in the foundation courses they have completed will be granted pre-major status. Pre-majors automatically become full majors upon completion of the minimum requirements.

**Full major:** Students must have completed the following requirements:

- Confirmed admission to WWU and have 45 credits or be in the CBE Distinguished Scholars program.
- Be in good academic standing with the University and meet one of the following GPA requirements:  
**Either:** 1) a minimum GPA of 2.75 in the eight Foundation Courses listed below, including grades from transfer courses and Advanced Placement credit **or** 2) a cumulative GPA of at least 2.50 in all college-level course work including transfer work.

**Provisional major:** Major status is granted provisionally to students who are completing their last foundation course(s) and would be eligible for full major status upon successful completion of their current course work.

**How to apply:** For consideration as a pre-major, provisional major or full major, complete the online application form at: <http://cbe.wwu.edu/cbe/students/application.shtml>.

**Advising tips:** 1) Complete MATH 157 and DSCI 205 requirements early; 2) For information regarding the MIS 220 Equivalency Exam see the Department of Decision Sciences website for test-out information: <http://cbe.wwu.edu/dsci/mis-testout.shtml>; 3) Meet with your faculty advisor (assigned following admission to the major).

### **Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

## Foundation Courses

- ACCT 240 - Financial Accounting
  - ACCT 245 - Managerial Accounting
  - DSCI 205 - Business Statistics
  - ECON 206 - Introduction to Microeconomics
  - ECON 207 - Introduction to Macroeconomics
  - MATH 157 - Calculus With Applications to Business and Economics
  - MGMT 271 - Law and the Business Environment
  - MIS 220 - Introduction to Business Computer Systems (or equivalent)

## Core Courses

- DSCI 305 - Applied Business Statistics
- FIN 341 - Principles of Finance
- MGMT 311 - Introduction to Management and Organizational Behavior
- MGMT 382 - Business and Its Environment
- MIS 320 - Principles of Management Information Systems
- MKTG 380 - Principles of Marketing
- OPS 360 - Operations Management

## Advanced Core Courses

- MGMT 495 - Strategic Management
- OR
- MGMT 491 - Small Business Entrepreneurship (and)
- MGMT 492 - Entrepreneurial Problems

\*These two courses would substitute for MGMT 495 and one of the courses under advisement.

## OPS Management Concentration Courses

- MGMT 313 - Teamwork Basics
- OPS 460 - Designing and Improving Lean Operations
- OPS 461 - Project Management
- OPS 468 - Manufacturing and Supply Chain Strategy
- Two courses from:
  - OPS 462 - Management Science with Spreadsheets
  - OPS 463 - Enterprise Resource Planning Systems
  - OPS 465 - Quality Management
  - OPS 466 - Supply Chain Management

One course under advisement

Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP) at WWU with a minimum grade of C-. The CF and WP courses must be taken within CBE and can be completed as part of the above required and elective courses, prior to graduation. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements.

Accounting and Business majors must complete a minimum of 90 credits in areas other than accounting and business administration.



## Bachelor of Science

### Manufacturing and Supply Chain Management, BS

Department of Decision Sciences, College of Business and Economics

**128-131 credits**

#### Introduction/What is the Study of Manufacturing and Supply Chain Management?

The Department of Decision Sciences' unique Manufacturing and Supply Chain Management Bachelor of Science program is the product of a cooperative effort between faculty and industry which has resulted in a curriculum that combines leadership, technology, and operations management. Students majoring in the program receive an integrated professional education. The Operations Management component develops knowledge on process design and analysis, materials planning and control systems, quality improvement, and strategic decisions. The Business component provides an understanding of business fundamentals as well as current business trends and practices. The Engineering Technology segment provides students with a solid grounding in engineering and manufacturing fundamentals, including computer-aided design with materials sciences. Finally, the work experience component provides a real-world work experience that directly relates to students' education.

#### Why Consider a Manufacturing and Supply Chain Management Major?

The Manufacturing and Supply Chain Management program is designed and highly influenced by the businesses that most need the services of well prepared students to meet the changing needs of the marketplace. The active involvement of regional industry through our board of advisors has resulted in nearly 100% placement of our graduates. Industries' generosity through scholarships and internships coupled with a curriculum taught by dedicated and accomplished faculty is a winning combination. Graduates find challenging and rewarding careers that are in high demand.

#### Contact Information

##### CBE Admissions & Scholarships

Dean's Office  
Parks Hall 419  
360-650-3896  
cbe@wwu.edu

##### Department Chair

Craig K. Tyran  
Parks Hall 343A  
360-650-2207  
Craig.Tyran@wwu.edu

##### Major Information:

**Academic Department Manager**  
Rachael Scholler  
Parks Hall 343  
360-650-3902  
Rachael.Scholler@wwu.edu

##### Program Director

Peter Haug  
Parks Hall 349  
360-650-4807  
Peter.Haug@wwu.edu

##### Manager

Ann Renee (A.R.) Mann  
Parks Hall 432  
360-650-7224  
AnnRenee.Mann@wwu.edu

#### Sample Careers

Transportation Manager | Buyer | Systems Manager | Project Manager | Production Supervisor | Inventory Manager | Quality Engineer | Industrial Engineer | Business Systems Analyst | Planner

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

**Pre-major:** Students, who have confirmed admission to WWU, are in good academic standing with the University, have completed 45 credits, undergone an interview with program faculty, and earned a GPA of 3.0 in the foundation courses they have completed (to date) will be granted pre-major status.

**Full major:** Students who have completed all their foundation courses (including Chemistry and Physics), undergone an interview with program faculty, and have a minimum GPA of 3.0 will be granted full major status.

**How to apply:** For consideration as a pre-major or full major, complete the online application form at: <http://cbe.wvu.edu/cbe/students/application.shtml>.

**Advising tips:** 1) Complete MATH 157, DSCI 205, ACCT 240 and ACCT 245 requirements early; 2) For information regarding the MIS 220 Equivalency Exam see the Department of Decision Sciences website for test-out information: <http://cbe.wvu.edu/dsci/mis-testout.shtml>; 3) Meet with your faculty advisor (assigned following admission to the major).

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

## Foundation Courses

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- CHEM 121 - General Chemistry I
- DSCI 205 - Business Statistics
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- MATH 157 - Calculus With Applications to Business and Economics
- MGMT 271 - Law and the Business Environment
- MIS 220 - Introduction to Business Computer Systems (or equivalent)
- PHYS 114 - Principles of Physics I

## Core Courses

- DSCI 305 - Applied Business Statistics
- FIN 341 - Principles of Finance
- MGMT 311 - Introduction to Management and Organizational Behavior
- MGMT 382 - Business and Its Environment
- MIS 320 - Principles of Management Information Systems
- MKTG 380 - Principles of Marketing
- OPS 360 - Operations Management

## Advanced Core Courses

- One of the following sets:
  - MGMT 495 - Strategic Management
  - OR
  - MGMT 491 - Small Business Entrepreneurship (and)
  - MGMT 492 - Entrepreneurial Problems \*

\* These two courses would substitute for MGMT 495 and one of the courses under advisement.

## MSCM Program Courses

- ETEC 112 - Introduction to Engineering, Design and Graphics

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- ETEC 113 - Introduction to Computer-Aided Design
- ETEC 220 - Introduction to Engineering Materials
- MGMT 313 - Teamwork Basics
- OPS 460 - Designing and Improving Lean Operations
- OPS 461 - Project Management
- OPS 468 - Manufacturing and Supply Chain Strategy
  - Two courses from:
    - OPS 462 - Management Science with Spreadsheets
    - OPS 463 - Enterprise Resource Planning Systems
    - OPS 465 - Quality Management
    - OPS 466 - Supply Chain Management
  - One course from:
    - ACCT 331 - Cost Management
    - ETEC 246 - Manufacturing Processes I
    - MGMT 401 - Conflict Management and Negotiations
    - MIS 321 - Systems Analysis and Design
    - OPS 469 - Seminar in Manufacturing and Supply Chain Management
  - Two practica (OPS 464 - 8 credits)
  - Three courses under advisement (11-12 credits)
  - Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP) at WWU with a minimum grade of C-. The CF and WP courses must be taken within CBE and can be completed as part of the above required and elective courses, prior to graduation. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements.
  - Accounting and Business majors must complete a minimum of 90 credits in areas other than accounting and business administration.

## Minor

### Business Administration Minor

College of Business and Economics

**40-42 credits**

#### Introduction/What is the Study of Business Administration?

#### Why Consider a Business Administration Minor?

Contact Information		
<b>CBE Admissions &amp; Scholarships</b>	<b>Department Chair</b>	<b>Minor Information:</b>
Dean's Office	Craig K. Tyran	<b>Academic Department Manager</b>
Parks Hall 419	Parks Hall 343A	Rachael Scholler
360-650-3896	360-650-2207	Parks Hall 343
cbe@wwu.edu	Craig.Tyran@wwu.edu	360-650-3902
		Rachael.Scholler@wwu.edu

#### Sample Careers

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):****Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- ACCT 240 - Financial Accounting
  - ACCT 245 - Managerial Accounting
  - DSCI 205 - Business Statistics
  - ECON 206 - Introduction to Microeconomics
  - ECON 207 - Introduction to Macroeconomics
  - FIN 341 - Principles of Finance
  - MATH 156 - Algebra With Applications to Business and Economics
  - MKTG 380 - Principles of Marketing
  - MGMT 271 - Law and the Business Environment
  - MGMT 311 - Introduction to Management and Organizational Behavior
  - MIS 220 - Introduction to Business Computer Systems

**Manufacturing and Supply Chain Management Minor**

Department of Decision Sciences, College of Business and Economics

**28 credits****Introduction/What is the Study of Manufacturing and Supply Chain Management?****Why Consider a Manufacturing and Supply Chain Management Minor?**

## Contact Information

**CBE Admissions & Scholarships**

Dean's Office  
Parks Hall 419  
360-650-3896  
cbe@wvu.edu

**Department Chair**

Craig K. Tyran  
Parks Hall 343A  
360-650-2207  
Craig.Tyran@wvu.edu

**Minor Information:****Academic Department Manager**

Rachael Scholler  
Parks Hall 343  
360-650-3902  
Rachael.Scholler@wvu.edu

## Sample Careers

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingmajor.shtml](http://www.wvu.edu/careers/students_choosingmajor.shtml)

**How to Declare (Admission and Declaration Process):**

See the College of Business and Economics introductory section of this catalog for declaration of pre-major and major requirements and procedures.

# DECISION SCIENCES

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- MGMT 311 - Introduction to Management and Organizational Behavior
- OPS 460 - Designing and Improving Lean Operations
- OPS 463 - Enterprise Resource Planning Systems
- One course from:
  - ETEC 344 - Industrial Quality Assurance
  - OPS 360 - Operations Management (including prerequisites)
- Three courses from:
  - MGMT 313 - Teamwork Basics
  - OPS 461 - Project Management
  - OPS 462 - Management Science with Spreadsheets
  - OPS 465 - Quality Management
  - OPS 466 - Supply Chain Management
  - OPS 467 - Global Operations Strategy
  - OPS 468 - Manufacturing and Supply Chain Strategy

## Decision Sciences Courses

### DSCI 205 - Business Statistics

Statistical methods used in business research, analysis and decision making; preparation and presentation of data, frequency distributions, measures of central tendency and dispersion, statistical inference, regression and correlation.

**Prerequisites & Notes:** MATH 156 or MATH 114 or MATH 115 or MATH 118 or equivalent or higher.  
Credits: 4

### DSCI 305 - Applied Business Statistics

Applications of business statistics to research, analysis, and decision making in business. Regression, correlation, analysis of variance, and nonparametric tests, with emphasis on the use of business-oriented computer statistical packages.

**Prerequisites & Notes:** MATH 157 or MATH 124 or MATH 128; and DSCI 205.  
Credits: 4

### DSCI 405 - Simulation Models for Decision Making

Introduction to building computer-based simulation models for business decision making. Data collection and input analysis, model building of

both Monte Carlo and discrete event simulations, output analysis and validation, and experimental design. Development of computer models to solve complex business problems in MIS, operations, finance, or marketing.

**Prerequisites & Notes:** DSCI 305 or equivalent;  
C- or better  
Credits: 4

## Management Information Systems Courses

### MIS 220 - Introduction to Business Computer Systems

Introduction to use of commercial software packages for business applications, including spreadsheet analysis, word processing, data management, and communications. S/U grading.

**Prerequisites & Notes:** ACCT 240, C- or better; or economics major  
Credits: 2  
Grade Mode: S/U

**MIS 304 - Introduction to Web Site Development**

Covers basic Web site design, navigation, and construction. Topics include HTML, JavaScript, page layout, site navigation, cascading style sheets, server-side includes, designing search engines, and site testing.

**Prerequisites & Notes:** MIS 320, C- or better  
Credits: 4

**MIS 313 - Computer Hardware and Operating Systems**

Understand the hardware components commonly found in networked PC work stations and servers and the operating systems that control them. Diagnose common hardware problems. Install or replace PC components. Install and configure PC operating systems. Diagnose and troubleshoot common OS problems. Manage system resources, including memory, directories and files. Configure network and Internet connectivity.

**Prerequisites & Notes:** Majors Only. MIS 320 or ACCT 321, C- or better  
Credits: 4

**MIS 314 - Fundamentals of Web Site Development and Management**

Introduction to server-side programming. Topics include PHP, MySQL, reading and writing to databases, database normalization, structured query language (SQL), data management, security, maintenance management and web usability. Each student constructs an interactive, database-driven web site.

**Prerequisites & Notes:** CSCI 202 or equivalent.  
Credits: 4

**MIS 320 - Principles of Management Information Systems**

Describes the role of MIS in management, including current professional practices and methodologies. Includes presentation of systems theory, decision theory, organizational models, types of MIS, planning and MIS development.

**Prerequisites & Notes:** MIS 220 or equivalent  
Credits: 4

**MIS 321 - Systems Analysis and Design**

Use management information systems techniques to solve managerial and organizational problems of limited complexity. Includes solving formal analytic problems and implementing solutions using MIS development techniques. Includes supervised structured laboratory exercises.

**Prerequisites & Notes:** Majors Only. MIS 320 or ACCT 321, C- or better  
Credits: 4

**MIS 322 - Business Applications Development**

Business application development using an object-oriented language. Design of user interfaces and integration with other development platforms such as spreadsheets and databases.

**Prerequisites & Notes:** Majors Only. MIS 320 or ACCT 321; pre/coreq: MIS 321; C- or better  
Credits: 4

**MIS 323 - Telecommunications**

Analysis and design of telecommunications systems, including those on the Internet. Topics include network design and management, telecommunications concepts and management, and network and telecommunications tools.

**Prerequisites & Notes:** Majors Only. MIS 320 or ACCT 321, C- or better  
Credits: 4

**MIS 324 - Intermediate Web Site Development and Management**

Web development using ASP.NET, C#, Visual Web Developer and Sql Server Express. Topics include: data management, web services, object-oriented programming, security, reusability, scalability and reliability. Students refine their skills by constructing a database driven web site.

**Prerequisites & Notes:** MIS 314 or MIS 322; instructor permission  
Credits: 4

**MIS 417 - Advanced Business Applications Development**

Advanced topics in Management Information Systems: Database Systems. Designed for CBE students in majors and concentrations other than

## DECISION SCIENCES

Management Information Systems. Overview of database use in modern business organizations. Alternative data models and normalization of data. Database design methodologies. Development of a database application using commercial software in microcomputer environment. Repeatable up to a maximum of 8 credits with different topics.

**Prerequisites & Notes:** MIS 320 or ACCT 321, or instructor permission.  
Credits: 4

### **MIS 421 - Business Database Development**

Overview of database use in modern business organizations. Alternative data models and normalization of data. Database design methodologies. Development of a database application using commercial software in microcomputer environment.

**Prerequisites & Notes:** Majors Only. MIS 321  
Credits: 4

### **MIS 422 - Business Intelligence**

Business intelligence (BI) is a broad category of applications and technologies for gathering, storing, analyzing, and providing access to data to help enterprise users make better business decisions. BI applications generally include: decision support systems, business analytics, performance management (key performance indicators, scorecards, and dashboards), data warehouses, and data mining. The course will include both conceptual and skill components, including projects using appropriate software platforms.

**Prerequisites & Notes:** Majors Only. MIS 322, C- or better.  
Credits: 4

### **MIS 423 - Network Administration**

Theory and principles, design, implementation, and management of local area network systems, including predominant networking products and technologies.

**Prerequisites & Notes:** Majors Only. MIS 321 or MIS 323, C- or better  
Credits: 4

### **MIS 424 - E-Commerce Systems Management**

This course covers both the theories and tools needed to build and manage e-commerce sites. Specific topics include e-commerce business models, marketing, security, hosting options, secure-transactions, web server installation and configuration, web services and interfacing with legacy systems.

**Prerequisites & Notes:** MIS 324, C- or better  
Credits: 4

### **MIS 431 - Advanced Business Database Systems**

Design, development, implementation and administration of server-based database management systems. Database queries from client, administrative, and Web-based systems. Instruction in both theory and practice.

**Prerequisites & Notes:** Majors Only. MIS 322, MIS 421, C- or better  
Credits: 4

### **MIS 432 - Expert Systems in Business**

Use of artificial intelligence concepts in the development of systems for expert decision making, with application to business problems. Review and use of selected commercial expert systems software packages.

**Prerequisites & Notes:** Majors Only. MIS 321 or ACCT 321, C- or better  
Credits: 4

### **MIS 491 - Practicum in Management Information Systems**

Information systems related to employment, research or special project experience. Emphasis on applying information systems principles and techniques in an academically guided setting. Minimum requirements include a written proposal, journal, and a comprehensive final report. Repeatable to a maximum of 12 credits, only four of which may be applied to the MIS concentration.

**Prerequisites & Notes:** Majors Only. MIS 321, C- or better  
Credits: 4

### **MIS 492 - Systems Implementation Project**

Solve an information system problem using project management and IS methodologies. Apply project management techniques in a group project environment. Develop systems documentation, implement system, and present completed project report.

**Prerequisites & Notes:** Majors Only. MIS 322 or MIS 421 or MIS 422 or MIS 432, C- or better, and permission of instructor.  
Credits: 4

### **MIS 495 - Corporate Information Systems Management**

Case study of the current and potential applications of information technology to enhance the competitive posture of the corporation. Uses of information technology throughout the organization; management and control of the information technology function.

**Prerequisites & Notes:** Majors Only. MIS 321; pre/corequisite: one 400-level MIS elective; C- or better  
Credits: 4

## **Operations Management Courses**

### **OPS 360 - Operations Management**

Examines the concepts for designing, planning and improving manufacturing and service organizations. Topics include enterprise resource planning, facility layout, forecasting, queuing models, inventory management, lean manufacturing, total quality control, and project management.

**Prerequisites & Notes:** DSCI 205, ACCT 245, C- or better; spreadsheet competency  
Credits: 4

### **OPS 367 - Management of Service Operations**

Concepts and techniques for designing, planning and controlling service operations. Topics include service site location, service facilities design, managing capacity and demand in service operations, work force scheduling, the queuing phenomenon, and the impact of new technology on service operations.

**Prerequisites & Notes:** Majors Only. OPS 360, C- or better  
Credits: 4

### **OPS 417 - Managing Supply Chain, China**

Concepts and techniques for designing, planning and controlling service operations. Topics include service site location, service facilities design, managing capacity and demand in service operations, work force scheduling, the queuing phenomenon, and the impact of new technology on service operations.

**Prerequisites & Notes:** junior or senior standing  
Credits: 4

### **OPS 460 - Designing and Improving Lean Operations**

Examines the design and analysis of lean manufacturing systems. Topics include principles of lean enterprises, kaizen practices, visual management, standard work, current and future state value stream mapping, creating continuous flow, cellular manufacturing, and process and capacity analysis.

**Prerequisites & Notes:** OPS 360 or ETEC 344; major restricted.  
Credits: 4

### **OPS 461 - Project Management**

Examines the organization, planning, and controlling of projects and provides practical knowledge on managing project scope, schedule and resources. Topics include project life cycle, work breakdown structure and Gantt charts, network diagrams, scheduling techniques, and resource allocation decisions. Concepts are applied through team projects and tutorials using project management software.

**Prerequisites & Notes:** OPS 360 or ETEC 344; major restricted.  
Credits: 4

### **OPS 462 - Management Science with Spreadsheets**

Covers the development of optimization and simulation models using Microsoft Excel for the solution of business problems. Topics include advanced spreadsheet use; linear, integer, and



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non-linear programming; and the simulation of stochastic systems. Applications in operations, finance, and marketing are reviewed.

**Prerequisites & Notes:** OPS 360 and MIS 320.  
Credits: 4

### **OPS 463 - Enterprise Resource Planning Systems**

Examines the principles and techniques for planning and managing resource usage across the business enterprise. Topics include business process integration, inventory management, master scheduling, and material and capacity planning. Concepts are applied through the use of current enterprise resource planning software.

**Prerequisites & Notes:** Majors only. OPS 360 or ETEC 344.  
Credits: 4

### **OPS 464 - Manufacturing Management Practicum**

Manufacturing management-related employment, research or special project experience. Emphasis on applying manufacturing management principles in an academically guided setting. Minimum requirements include a written proposal, a daily journal, and a comprehensive final written report. Repeatable to a maximum of 12 cr; 8 cr of these may be applied to the manufacturing management major.

**Prerequisites & Notes:** OPS 360 or ETEC 325 or ETEC 327, and permission of instructor; major restricted.  
Credits: 4

### **OPS 465 - Quality Management**

Examines the principles and techniques for managing and improving quality in an organization. Topics include incoming material control, statistical process control, and process improvement.

**Prerequisites & Notes:** OPS 360 or ETEC 344; major restricted.

Credits: 4

### **OPS 466 - Supply Chain Management**

Examines the principles, techniques, and practices for the design and management of integrated supply chain operations. Investigates supply chain strategy, distribution, facility location decisions, purchasing, and information systems for managing supply chain activities.

**Prerequisites & Notes:** OPS 360 or ETEC 344; major restricted.  
Credits: 4

### **OPS 467 - Global Operations Strategy**

Analysis of issues, problems, and techniques experienced in managing global operations. Topics include global supply chain management, plant location decisions, production planning, technology transfer, and foreign manufacturing systems.

**Prerequisites & Notes:** Majors Only. OPS 360, C- or better  
Credits: 4

### **OPS 468 - Manufacturing and Supply Chain Strategy**

Reviews manufacturing and supply chain management principles and techniques and examines issues in global manufacturing operations. Topics include supply chain strategy, facility network design, logistics, forecasting, aggregate planning, lean manufacturing principles, and global operations.

**Prerequisites & Notes:** OPS 360 or ETEC 344; major restricted.  
Credits: 4

### **OPS 469 - Seminar in Manufacturing and Supply Chain Management**

Operations management theory and concepts applied to current manufacturing and supply chain problems.

**Prerequisites & Notes:** Majors Only. OPS 460, OPS 463, OPS 464 and permission of instructor.  
Credits: 4

# Economics

## Introduction

In a world without scarcity, economics as a field of study would be unnecessary. The most challenging task of economics is the study of how to best use resources in the satisfaction of human wants. Today, more than ever, the problems agitating society are predominantly economic. The problems of inequality, discrimination, pollution, energy, growth and stagnation are heavily economic, as are their solutions. Whether as intelligent citizens or as professional economists, we need the perspective and analysis of economics to understand and deal with the realities of life in the 21st century.

With appropriate preparation, particularly in the areas of economic theory, statistical methods and computer-assisted data analysis, the career opportunities for economists are diverse. Economists are most typically employed at all levels of government, in banking and financial institutions, other business firms, labor organizations, and as researchers and teachers in the educational system. One of the most dynamic career areas for economists has been in business. Business economists are typically involved in planning and forecasting, production and market analysis, pricing, and government policy analysis. While various employment opportunities are available to the university graduate with a baccalaureate degree, the person who wishes to pursue a high-powered career as a professional economist should plan to do some graduate study.

## Information

The department's faculty and staff invite questions about the program and career opportunities for economics majors. Interested persons are invited to visit the department office in Parks Hall 315 or to telephone 360-650-3910. Written inquiries should be directed to the Department of Economics, Western Washington University, Bellingham, WA 98225-9074. E-mail: [Econ@wwu.edu](mailto:Econ@wwu.edu). Website: <http://cbe.wwu.edu/econ/index.shtml>.

## Faculty

Typically all economics faculty on ongoing appointments hold the PhD degree and are engaged in research and consulting activities at the local, state, national and international level. Faculty members have a commitment to quality teaching, personalized student contact and student advisement.

**STEVEN E. HENSON** (1985) Chair and Professor. BA, California State University; MS, PhD, University of Oregon.

**BRANDON DUPONT** (2006) Associate Professor. BA, McNeese State University; MA, University of Iowa; PhD, University of Kansas.

**YVONNE DURHAM** (2000). Professor. BA, University of Wyoming; MA, PhD, University of Arizona.

**MOHEB A. GHALI** (1993) Professor. BCom, Cairo University; MA, University of California; PhD, University of Washington.

**STEVEN GLOBERMAN** (1994) Kaiser Professor of International Business and Director of the Center for International Business. BA, Brooklyn College; MA, University of California-Los Angeles; PhD, New York University.

**DANIEL A. HAGEN** (1988) Professor. BA, MA, PhD, University of California-Berkeley.

**JULIA HANSEN** (1988) Professor. BA, University of Vermont; MA, PhD, University of California-Berkeley.

**L. HART HODGES** (2000) Associate Professor and Director of the Center for Economic and Business Research. BA, Williams College; MEM, Duke University; PhD, University of Washington.

**SHAWN KNABB** (2005) Associate Professor. BA, Miami University; MA, PhD, University of California-Santa Barbara.

**JOHN KRIEG** (2000). Professor and Director of the Office of Survey Research. BA, Northwestern University; MA, PhD, University of Oregon.

**DENNIS R. MURPHY** (1979) Professor. BA, MA, Western Washington University; PhD, Indiana University.

## ECONOMICS

**DAVID M. NELSON** (1977) Professor. BA, Whitworth College; MA, PhD, University of Oregon.

**MATTHEW R. ROELOFS** (1997) Professor. BA, Calvin College; MS, PhD, Purdue University.

**SHARON SHEWMAKE** (2013) Assistant Professor. BA, Duke University; PhD, University of California-Davis.

**PAUL A. STORER** (1996) Professor. BA, MA, University of Toronto; PhD, University of Western Ontario.

**OZAN SULA** (2006) Associate Professor. BA, Marmara University; MA, PhD, Claremont Graduate University.

**PHILIP THOMPSON** (2009) Assistant Professor. BA, Kent State University; PhD, University of Arizona.

### Departmental Mission

The mission of the department is to provide students with an understanding of economic concepts and the functioning of the economy, and to equip them with the ability to apply economic analysis in problem solving. The department strives to provide a major program which gives students rigorous training in both economic theory and applications. The department plays an integral role in offering courses that are a component of Western's General University Requirements and that are part of other undergraduate and graduate programs in the college and in the University. The department views the conduct of research in economics, and applied research in particular, to be an integral part of its instructional mission. In addition, the department strives to serve both the profession and the community and to help raise the level of economic awareness among the public at large.

### Declaration Process

Students must have achieved a 2.50 cumulative college GPA (including transfer work) to declare a major in economics. Completion of the CBE Foundation courses is not required to declare a major in economics, except for the economics-accounting combined major (see Economics/Accounting, BA). Students planning to major in economics should declare their major as early as possible, preferably during their first year at Western. Early declaration is costless and in no way restricts the student's options for changing plans later, but it provides many benefits. Advantages include faculty advising, and protection against possible future catalog revisions that change degree requirements. Declared majors are also eligible for departmental scholarships and other awards. Transfer students should contact the department prior to registering to be certain that they enter the course sequence correctly with the appropriate course equivalents from other institutions.

### Other Departmental Information

#### *The Curricula*

The economics program at Western provides several options under the Bachelor of Arts degree.

The economics major requires a foundation in economic theory and quantitative skills and provides opportunities for pursuing in depth a number of important areas within economics, most notably financial, environmental, and resource economics.

#### *Combined majors*

A combined major is available as an option to students whose educational or professional interests may best be furthered by an integrated curriculum from two disciplines. A combined major may be fulfilled by the completion of requirements stipulated by both the Economics Department and a department with which Economics has established arrangements. A plan of study must be approved by both departments for completion of the major. Combined majors already exist with accounting, environmental studies, mathematics, philosophy and political science, social studies, and finance. Students are encouraged to explore the possibility of combining economics with other disciplines.

Students must consult with an advisor prior to the selection of a major option or the selection of elective credits in other departments of the College of Business and Economics (CBE) to be included as part of the economics major.

# Bachelor of Arts

## Economics, BA

Department of Economics, College of Business and Economics

### 66-69 credits

### Introduction/What is the Study of Economics?

The study of Economics will provide an understanding of economic concepts and the functioning of the economy in addition to the ability to apply economic analysis in problem solving. The Economics Department strives to provide a program which gives students rigorous training in both economic theory and applications.

### Why Consider an Economics Major?

A degree in Economics can be the gateway to many careers. Professional economists are employed as advisors and researchers in both business and government and as teachers and researchers in academic institutions. Employment as an Economist generally requires the completion of graduate studies beyond the bachelor's degree. Western's graduates in Economics hold a variety of jobs in business and teaching. In addition, many of Economics graduates have had a high success rate for admissions to professional schools in law and business.

Contact Information		
<b>CBE Admissions &amp; Scholarships</b>	<b>Department Chair</b>	<b>Major Information:</b>
Dean's Office	Steve Henson	<b>Academic Department Manager</b>
Parks Hall 419	Parks Hall 315A	Diane Brearley
360-650-3896	360-650-4843	Parks Hall 315
cbe@wwu.edu	Steve.Henson@wwu.edu	360-650-3910
		Diane.Brearley@wwu.edu
		Econ@wwu.edu

Sample Careers
Actuary/Banking   Financial Planner/Analyst   Urban/Regional Planner   Economic Researcher   Corporate Attorney   Financial Economist   Real Estate   Business Management   Insurance Consultant

Major/Career Resources
<a href="http://www.wwu.edu/career/students_choosingamajor.shtml">http://www.wwu.edu/career/students_choosingamajor.shtml</a>

### How to declare (Admission and Declaration Process):

Students planning to major in Economics should declare their major as early as possible, preferably their first year at Western. Completion of the CBE foundation courses is not required to declare a major in economics. Admission to programs in the College of Business and Economics (CBE) is selective and based upon prior academic performance and other evidence of high promise. For admission to CBE as a full Economics major, a student must meet the following requirements:

- Confirmed admission to Western Washington University
- Achieved a 2.5 cumulative college GPA (including transfer work)

Students apply for admission to the major by completing the online application form at: <http://cbe.wwu.edu/cbe/students/application.shtml>.

Advising tips: 1) Complete MATH 157 and DSCI 205 requirements early; 2) For information regarding the MIS 220 Equivalency Exam see the Department of Decision Sciences website for test-out information; <http://cbe.wwu.edu/dsci/mis-testout.shtml>; 3) Meet with your faculty advisor (assigned following admission to the major).

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## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- DSCI 205 - Business Statistics or equivalent
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- ECON 303 - The History of Economic Thought
- ECON 306 - Intermediate Microeconomics
- ECON 307 - Intermediate Macroeconomics
- ECON 375 - Introduction to Econometrics
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 157 - Calculus With Applications to Business and Economics or equivalent
- One course from:
  - MIS 220 - Introduction to Business Computer Systems
  - CSCI 101 - Computers and Applications
- 32 credits of electives in CBE, under departmental advisement; at least 24 of these credits must be upper-division credits in economics; a minimum of 16 of these 24 credits must be at the 400 level
- Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP-3 points) at WWU with a minimum grade of C-. The CF and WP courses must be taken within CBE and can be completed as part of the above required and elective courses, prior to graduation. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements.

## Economics/Accounting, BA

Combined major offered by the department of Economics and the department of Accounting, College of Business and Economics.

### 100-103 credits

#### Introduction/What is the Study of Economics/Accounting?

The study of Economics will provide an understanding of economic concepts and the functioning of the economy in addition to the ability to apply economic analysis in problem solving. The Economics Department strives to provide a program which gives students rigorous training in both economic theory and applications. Accounting is an important tool used by managers of organizations to plan, control and report financial activity. A thorough knowledge of Accounting is necessary to understand the operation and financial condition of any business, non-profit organization or governmental agency.

#### Why Consider an Economics/Accounting Major?

This major is designed for students wishing to obtain a strong preparation in both Economics and Accounting and especially those who intend to go into careers in business. It is an excellent undergraduate study for the Master of Business Administration.

#### Contact Information

**CBE Admissions  
& Scholarships**

**Economics Department Chair**  
Steve Henson

**Economic Major  
Information:**

Dean's Office  
Parks Hall 419  
360-650-3896  
cbe@wwu.edu

Parks Hall 315A  
360-650-4843  
Steve.Henson@wwu.edu

#### Accounting Department Chair

Professor George Sanders  
Parks Hall 451A  
360-650-4811  
George.Sanders@wwu.edu

#### Academic Department Manager

Diane Brearley  
Parks Hall 315  
360-650-3910  
Diane.Brearley@wwu.edu  
Econ@wwu.edu

#### Accounting Major Information: Academic Department Manager

Marty Hitchcock  
Parks Hall 451  
360-650-3202  
Marty.Hitchcock@wwu.edu

#### Sample Careers

Actuary/Banking | Financial Planner/Analyst | Accountant | Corporate Attorney | Insurance Consultant

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

**Pre-major:** Students, who have confirmed admission to WWU, are in good academic standing with the University, have completed 45 credits, and earned a GPA of 2.5 overall or 2.75 in the foundation courses they have completed, will be granted pre-major status. Pre-majors automatically become full majors upon completion of the minimum requirements.

**Full major:** Students must have completed the following requirements:

- Confirmed admission to WWU and have 45 credits or be in the CBE Distinguished Scholars program.
- Be in good academic standing with the University and meet one of the following GPA requirements:  
**Either:** 1) a minimum GPA of 2.75 in the eight Foundation Courses listed below, including grades from transfer courses and Advanced Placement credit **or** 2) a cumulative GPA of at least 2.50 in all college-level course work including transfer work.

**Provisional major:** Major status is granted provisionally to students who are completing their last foundation course(s) and would be eligible for full major status upon successful completion of their current course work.

**How to apply:** For consideration as a pre-major, provisional major or full major, complete the online application form at: <http://cbe.wwu.edu/cbe/students/application.shtml>.

**Advising tips:** 1) Complete MATH 157 and DSCI 205 requirements early; 2) For information regarding the MIS 220 Equivalency Exam see the Department of Decision Sciences website for test-out information: <http://cbe.wwu.edu/dsci/miss-testout.shtml>; 3) Meet with your faculty advisor (assigned following admission to the major).

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

##### Foundation Courses

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- DSCI 205 - Business Statistics
- ECON 206 - Introduction to Microeconomics

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- ECON 207 - Introduction to Macroeconomics
- MGMT 271 - Law and the Business Environment
- MIS 220 - Introduction to Business Computer Systems (or equivalent)
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 157 - Calculus With Applications to Business and Economics (or equivalent)

### Upper-Division Courses

- ACCT 321 - Accounting Information Systems I
- ACCT 341 - Intermediate Accounting Theory and Practice I
- ACCT 342 - Intermediate Accounting Theory and Practice II
- ACCT 343 - Intermediate Accounting Theory and Practice III
- ECON 303 - The History of Economic Thought
- ECON 306 - Intermediate Microeconomics
- ECON 307 - Intermediate Macroeconomics
- ECON 311 - Money and Banking
- FIN 341 - Principles of Finance
- MGMT 311 - Introduction to Management and Organizational Behavior
- MGMT 382 - Business and Its Environment
- MKTG 380 - Principles of Marketing
- OPS 360 - Operations Management
- One course from:
  - MGMT 492 - Entrepreneurial Problems
  - MGMT 495 - Strategic Management
- 8 additional credits in upper-division accounting courses, under departmental advisement
- 8 additional credits in upper-division economics courses, under departmental advisement
- Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP-3 points) at WWU with a minimum grade of C-. The CF and WP courses must be taken within CBE and can be completed as part of the above required and elective courses, prior to graduation. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements.

## **Economics/Environmental Studies, BA**

Combined major offered by the Department of Economics, College of Business and Economics and the Department of Environmental Studies, Huxley College of the Environment.

### **103-104 credits (including preparatory courses and major)**

#### **Introduction/What is the Study of Economics/Environmental Studies?**

Economics deals with how people living in a world of scarcity make choices. These choices inevitably involve costs. Questions examined in environmental economics include efficient resource use, preservation of wilderness and biological diversity, local and regional air pollution, global climate change, and treatment of toxic substances. Students learn how to use economic principles to help understand the causes of environmental problems and to identify potential remedies.

Environmental Studies draws on basic knowledge of how natural systems work and is applied to solving problems largely created by human activities. Often these problems are represented by disturbances in the functioning of natural systems. In addition to the study of the natural environment, a study of laws and policy related to the environment provides a foundation for solving environmental problems.

### Why Consider an Economics/Environmental Studies Major?

A combined major in Economics/Environmental Studies is available to students having a strong interest in the economic aspects of environmental studies and natural resources. The degree awarded is a B.A. in Economics.

Contact Information			
<b>Economics Department Chair</b>	<b>Economics Major Information: Academic Department Manager</b>	<b>Environmental Studies Department Chair</b>	<b>Environmental Studies Information: Huxley Undergraduate Advisor</b>
Steve Henson Parks Hall 315A 360-650-4843 Steve.Henson@wwu.edu	Diane Brearley Parks Hall 315 360-650-3910 Diane.Brearley@wwu.edu Econ@wwu.edu	Michael Medler Arntzen Hall 217 360-650-3277 Michael.Medler@wwu.edu	Kathryn Patrick Environmental Studies 539 360-650-3520 Kathryn.Patrick@wwu.edu

### Sample Careers

Environmental Consulting | Economics/Environmental Researcher | Environmental Advocacy for Non-profits | Environmental Affairs-Business | Environmental Protection-Government

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students planning to major in Economics/Environmental Studies should declare their major as early as possible, preferably their first year at Western in both the College of Business and Economics, and Huxley College of the Environment.

Admission to CBE is selective and based upon prior academic performance and other evidence of high promise. For admission as a full Economics major, a student must have completed the following requirements:

- Confirmed admission to Western Washington University
- Achieved a 2.5 cumulative college GPA (including transfer work)

Complete the online application form at: <http://cbe.wwu.edu/cbe/students/application.shtml>.

Students apply for admission to the Environmental Studies (ENVS) portion of the major at any time, by going to the central Huxley College office in Environmental Studies Building 539 and filling out a major declaration card.

Admission as a full Environmental Studies Major is selective and based upon the following four criteria:

1. Completion of required preparatory course work
2. A brief essay in response to a given question
3. Relevant experience
4. Academic performance (GPA)

Applications should be received by the Huxley College office by April 25 for summer or fall quarter admission; October 6 for winter quarter; and January 15 for spring quarter.

There are several advantages to declaring during your freshman or sophomore year. Once you are declared as a phase I major you are assigned a Huxley faculty advisor based on your interests at the time of declaration. You can then meet with your faculty advisor to discuss which courses to take and when, how to prepare for graduate school or a future career, or simply to get assistance navigating through the Huxley curriculum. Your email is added to an email distribution list for Huxley majors so you will begin to receive notifications and general announcements, as well as information about jobs, internships, or research opportunities.

Those pursuing joint programs offered by Environmental Studies with other Western academic units may begin as Phase I majors. Preparatory and major requirements differ from those of the other ENVS majors as outlined in this catalog. You can declare an ENVS Phase I major at any time.



# ECONOMICS

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

#### Preparatory Courses (18-19 credits)

One course from:

- BIOL 101 - Introduction to Biology
- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- CHEM 121 - General Chemistry I
- One course from:
  - MATH 114 - Precalculus I
  - MATH 156 - Algebra With Applications to Business and Economics
- Additional Lab Science course in BIOL, CHEM, GEOL or PHYS

#### Major (85 credits)

- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- ECON 303 - The History of Economic Thought
- ECON 306 - Intermediate Microeconomics
- ECON 307 - Intermediate Macroeconomics
- ECON 383 - Environmental Economics
- ECON 384 - Energy Economics
- ECON 483 - Resource Economics
- ECON 493 - Senior Seminar: Economics, the Environment and Natural Resources
- ENVS 450 - United States Environmental Policy
- ENVS 455 - Environmental Law
- One course from:
  - DSCI 205 - Business Statistics
  - MATH 240 - Introduction to Statistics
  - MATH 341 - Probability and Statistical Inference
- One course from:
  - ENVS 340 - Developing World
  - ENVS 341 - Population and Resources
  - ENVS 342 - Geography of the World Economy
- One course from:
  - ESCI 302 - Environmental Pollution
  - ESCI 310 - Environmental Systems
  - ESCI 325 - Fundamentals of Ecology
  - ESCI 392 - Introduction to Global Change
- One course from:
  - ESCI 321 - Oceanography
  - ESCI 330 - Natural History of the Pacific Northwest
  - ESCI 333 - Introduction to Environmental Toxicology
  - ESCI 361 - Water Quality
  - ESCI 463 - Wetlands for Wastewater Treatment
- One course from:

- ENVS 493 - Environmental Impact Assessment
- ESCI 493 - Environmental Impact Assessment
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 157 - Calculus With Applications to Business and Economics
- Electives under advisement (15-18 credits)
  - ECON 300- and 400-level
  - ENVS 300- and 400-level
- Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP-3 points) at WWU with a minimum grade of C-. The CF course must be taken within the College of Business and Economics, while the WP requirement can be met with courses from any of the combined major departments. These requirements can be completed as part of the above required and elective credits. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements.

## **Economics/Mathematics, BA**

Combined major offered by the Department of Economics, College of Business and Economics and the Department of Mathematics, College of Sciences and Technology

### **95 credits**

#### **Introduction/What is the Study of Economics/Mathematics?**

The study of Economics will provide an understanding of economic concepts and the functioning of the economy in addition to the ability to apply economic analysis in problem solving. The Economics Department strives to provide a program which gives students rigorous training in both economic theory and applications. "In addition to theorems and theories, Mathematics offers distinctive modes of thought which are both versatile and powerful, including modeling, abstraction, optimization, logical analysis, inference from data, and use of symbols. Experience with mathematical modes of thought builds mathematical power—a capacity of mind of increasing value in this technological age that enables one to read critically, to identify fallacies, to detect bias, to assess risk, and to suggest alternatives. Mathematics empowers us to understand better the information-laden world in which we live." From: Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences.

#### **Why Consider an Economics/Mathematics Major?**

A degree in Economics can be the gateway to many careers. Professional economists are employed as advisors and researchers in both business and government and as teachers and researchers in academic institutions. Employment as an Economist generally requires the completion of graduate studies beyond the bachelor's degree. Western's graduates in Economics hold a variety of jobs in business and teaching. In addition, Economics graduates have a high success rate for admissions to professional schools in law and business.

Empowered with the critical thinking skills that Mathematics develops, recent Mathematics graduates from Western have obtained positions in a variety of fields including actuarial science, cancer research, computer software development, business management and the movie industry, among many others. The skills acquired in our program have prepared graduates for further academic studies in Mathematics, Computer Science, Physics, Biology, Chemistry, Oceanography and Education.

Contact Information			
<b>Economics Department Chair</b>	<b>Economics Major Information:</b>	<b>Mathematics Department Chair</b>	<b>Mathematics Major Information:</b>

# ECONOMICS

Steve Henson  
Parks Hall 315A  
360-650-4843  
Steve.Henson@wwu.edu

**Academic Department  
Manager**

Diane Brearley  
Parks Hall 315  
360-650-3910  
Diane.Brearley@wwu.edu  
Econ@wwu.edu

Tjalling Ypma  
Bond Hall 202A  
360-650-3785  
Tjalling.Ypma@wwu.edu

**Academic Department  
Manager**

Mathematics Department  
Parks Hall 202  
360-650-3785  
Math.Department@wwu.edu

## Sample Careers

Actuary/Banking | Financial Planner/Analyst | Urban/Regional Planner | Economic Researcher | Corporate Attorney | Financial Economist | Real Estate | Business Management | Insurance Consultant

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students planning to major in Economics/Mathematics should declare their major as early as possible, preferably their first year at Western. Completion of the CBE (College of Business and Economics) foundation courses is not required to declare this combined major in economics.

Admissions: For admission as a full Economics/Mathematics major, a student must have completed the following requirements:

- Confirmed admission to Western Washington University
- Achieved a 2.5 cumulative college GPA (including transfer work)

Complete the online application form at: <http://cbe.wwu.edu/cbe/students/application.shtml>.

Students will also need to meet the admission and declaration requirements of the Department of Mathematics.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- ECON 303 - The History of Economic Thought
- ECON 306 - Intermediate Microeconomics
- ECON 307 - Intermediate Macroeconomics
- ECON 475 - Econometrics
- Choose either
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry II
- OR
- MATH 134 - Calculus I Honors
- MATH 135 - Calculus II Honors
- OR
- MATH 138 - Accelerated Calculus
- Choose either:
  - MATH 204 - Elementary Linear Algebra
  - MATH 331 - Ordinary Differential Equations
- OR
- MATH 203 - Linear Algebra and Differential Equations I

- MATH 303 - Linear Algebra and Differential Equations II
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 225 - Multivariable Calculus and Geometry II
- MATH 226 - Limits and Infinite Series
- MATH 304 - Linear Algebra
- MATH 331 - Ordinary Differential Equations
- M/CS 435 - Nonlinear Optimization
- One course from:
  - CSCI 139 - Programming Fundamentals in Python
  - CSCI 140 - Programming Fundamentals in C++
  - CSCI 141 - Computer Programming I
  - MATH 307 - Mathematical Computing
- One Course from:
  - ECON 406 - Topics in Microeconomics
  - ECON 407 - Topics in Macroeconomics
- Choose one of the following options:
  - MATH 341 - Probability and Statistical Inference
  - MATH 342 - Statistical Methods
- OR
- MATH 441 - Probability
- MATH 442 - Mathematical Statistics
- 16 additional credits in upper-division courses in economics, under prior departmental advisement; 8 of these 16 credits must be at the 400 level
- Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP-3 points) at WWU with a minimum grade of C-. The CF course must be taken within the College of Business and Economics, while the WP requirement can be met with courses from any of the combined major departments. These requirements can be completed as part of the above required and elective credits. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements

## **Economics/Political Science, BA**

Combined major offered by the Department of Economics, College of Business and Economics and the Department of Political Science, College of Humanities and Social Sciences.

### **94-96 credits**

#### **Introduction/What is the Study of Economics/Political Science?**

This major provides students rigorous training in both economic theory and applications with in depth analysis of political theory. Students will gain insight in a variety of areas including trade, monetary systems, and the interplay between politics and economics.

Political Science is one of the oldest fields of academic inquiry. Social ideals and their realization through law were systematically studied in ancient Greece. In an increasingly interdependent world, the study of politics and government has flourished as the relations between persons, groups and nations have become more complex, and questions of freedom and authority have challenged every citizen. Modern Political Science is equally concerned with questions of political philosophy and with the pursuit of social scientific research. These concerns are reflected in a broad and diverse curriculum.

**Why Consider an Economics/Political Science Major?**

The curriculum prepares students for careers in public service-related occupations in both government and business. Many students majoring in Economics/Political Science go on to law school, graduate school and into the professions. By combining coursework in both Economics and Political Science, students gain an important interdisciplinary perspective to important political and economic issues.

Contact Information			
<b>Economics Department Chair</b>	<b>Economics Major Information: Academic Department Manager</b>	<b>Political Science Department Chair</b>	<b>Political Science Program Coordinator</b>
Steve Henson Parks Hall 315A 360-650-4843 Steve.Henson@wwu.edu	Diane Brearley Parks Hall 315 360-650-3910 Diane.Brearley@wwu.edu Econ@wwu.edu	Sara Weir Arntzen Hall 415 360-650-2912 Sara.Weir@wwu.edu	Perry Warner Arntzen Hall 415 360-650-3469 Perry.Warner@wwu.edu

**Sample Careers**

Attorney | Financial Planner/Analyst | Law School | Politician | Economist | Banking | Real Estate | Entrepreneur | Campaign Worker | Insurance | Government Consultant

**Major/Career Resources**

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Students planning to major in Economics/Political Science should declare their major as early as possible, preferably their first year at Western. Completion of the CBE foundation courses is not required to declare this combined major in economics.

**Admissions:** Programs in the College of Business and Economics (CBE) are selective and based upon prior academic performance and other evidence of high promise. For admission to CBE as a full Economics/Political Science major, a student must have completed the following requirements

- Confirmed admission to Western Washington University
- Achieved a 2.5 cumulative college GPA (including transfer work)

Complete the online application form at: <http://www.cbe.wwu.edu/cbe/students/application.shtml>.

Students interested in Economics Major Programs, please see the Economics Department in Parks Hall 315 for information.

Political Science Department: Students are eligible to declare a political science major and any majors combined with political science if they have completed any **three** of the following core courses **with an average grade of 2.7 or above:** PLSC 250, 261, 271, 291, or an equivalent course(s) at another college or university. Due to high student demand and limited capacity, immediate access to specific courses cannot be guaranteed. Students who have no political science transfer credits: go to the Political Science department office, 415 Arntzen Hall, with an unofficial WWU transcript showing the three completed courses from the list above. Students with political science transfer credits from another institution: call 360-650-3469 to make an appointment to have credits reviewed, then visit the department office with the required documents as outlined above.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- ❑ DSCI 205 - Business Statistics or equivalent
  - ❑ ECON 206 - Introduction to Microeconomics
  - ❑ ECON 207 - Introduction to Macroeconomics
  - ❑ ECON 303 - The History of Economic Thought
  - ❑ ECON 306 - Intermediate Microeconomics
  - ❑ ECON 307 - Intermediate Macroeconomics
  - ❑ ECON 310 - Public Finance
  - ❑ PLSC 250 - The American Political System
  - ❑ PLSC 261 - Introduction to Political Theory
  - ❑ One course from:
    - MATH 124 - Calculus and Analytic Geometry I
    - MATH 157 - Calculus With Applications to Business and Economics or equivalent
  - ❑ One course from:
    - PLSC 271 - Introduction to International Relations
    - PLSC 291 - Introduction to Comparative Politics
  - ❑ One course from:
    - PLSC 346 - Politics of Inequality
    - PLSC 372 - International Political Economy
    - PLSC 390 - The Politics of Development
  - ❑ One course from:
    - PLSC 427 - Policy-Making and Policy Analysis
    - PLSC 462 - The Rise of Modern Political Economy
  - ❑ One Course from:
    - ECON 491 - Issues in Political Economy
    - PLSC 491 - Issues in Political Economy
  - ❑ 12 additional credits in upper-division economics courses, under departmental advisement
  - ❑ 9 additional credits from the American Politics and Public Policy field
  - ❑ 4 additional credits from the Political Theory field
  - ❑ 8-9 additional credits in upper-division political science electives, to complete the program
  - ❑ Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP-3 points) at WWU with a minimum grade of C-. The CF course must be taken within the College of Business and Economics, while the WP requirement can be met with courses from any of the combined major departments. These requirements can be completed as part of the above required and elective credits. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements.

**Economics/Social Studies, BA**

Department of Economics, College of Business and Economics.

**90 credits****Introduction/What is the Study of Economics/Social Studies?**

The study of Economics will provide an understanding of economic concepts and the functioning of the economy in addition to the ability to apply economic analysis in problem solving. The Economics Department strives to provide a program which gives students rigorous training in both economic theory and applications.

# ECONOMICS

Social Studies Education is guided by the definition of social studies adopted by the National Council for Social Studies:

"Social Studies is the integrated study of the social sciences and humanities to promote civic competence. Within the school program, Social Studies provides coordinated, systematic study drawing upon such disciplines as Anthropology, Archaeology, Economics, Geography, History, Law, Philosophy, Political Science, Psychology, Religion, and Sociology, as well as appropriate content from the Humanities, Mathematics and Natural Sciences. The primary purpose of Social Studies is to help young people develop the ability to make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world."

## Why Consider an Economics/Social Studies Major?

This major is open to any student who desires to study Economics and a variety of other social sciences, but it is specifically designed for students desiring to pursue a career in teaching. Secondary Education students who wish to be endorsed in Social Studies may choose this major. However, the Economics/Social Studies degree does not require that a student pursue a teaching certificate.

To receive a recommendation for state of Washington certification, students must complete the "teacher certification" program, including the content methods course SEC 426, which is offered by the Department of Secondary Education 1) as a part of the undergraduate BA degree, or 2) as a post baccalaureate program, or 3) as a part of the Master's in Teaching program. See the Secondary Education Professional Program Guide for program admission and teacher certification requirements. Completion of this combined major leads to an endorsement in social studies.

Contact Information	
<b>Economics Department Chair</b> Steve Henson Parks Hall 315A 360-650-4843 Steve.Henson@wwu.edu	<b>Economics Major Information: Academic Department Manager</b> Diane Brearley Parks Hall 315 360-650-3910 Diane.Brearley@wwu.edu Econ@wwu.edu
<b>Secondary Education Information</b> Miller Hall 401C 360-650-3327 <a href="http://www.wce.wwu.edu/sec">http://www.wce.wwu.edu/sec</a>	<b>Teacher Education Admissions</b> Miller Hall 214 360-650-3313 <a href="http://www.wce.wwu.edu/admiss">http://www.wce.wwu.edu/admiss</a>

Sample Careers
Elementary Teacher   High School Teacher   Government   Economist   Entrepreneur   Insurance Consultant
Major/Career Resources
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>

## How to Declare (Admission and Declaration Process):

Students planning to major in Economics/Social Studies should declare their major as early as possible, preferably their first year at Western. Completion of the CBE foundation courses is not required to declare this combined major in economics.

**Admissions:** Programs in the College of Business and Economics (CBE) are selective and based upon prior academic performance and other evidence of high promise. For admission to CBE as a full Economics/Social Studies major, a student must have completed the following requirements:

- Confirmed admission to Western Washington University
- Achieved a 2.5 cumulative college GPA (including transfer work)

Complete the online application form at: <http://cbe.wwu.edu/cbe/students/application.shtml>.

## Grade Requirements

A 2.0 (C) minimum course grade is required in each course taken in the major.

Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

### Requirements

- DSCI 205 - Business Statistics or equivalent
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- ECON 303 - The History of Economic Thought
- ECON 306 - Intermediate Microeconomics
- ECON 307 - Intermediate Macroeconomics
- ENVS 204 - Human Geography
- HIST 103 - Introduction to American Civilization: American History to 1865
- HIST 104 - Introduction to American Civilization: American History Since 1865
- HIST 121 - World History to 500
- HIST 123 - World History, 1500 to the Present
- HIST 391 - History of the Pacific Northwest
- PLSC 250 - The American Political System
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 157 - Calculus With Applications to Business and Economics or equivalent
- One course from:
  - MIS 220 - Introduction to Business Computer Systems
  - CSCI 101 - Computers and Applications
- One course from:
  - ANTH 201 - Introduction to Cultural Anthropology
  - SOC 221 - Introduction to Population Issues
  - SOC 251 - Sociology of Deviant Behavior
  - SOC 260 - The Family in Society
  - SOC 268 - Gender and Society
- One of the following:
  - ENVS 221 - Geographic Information Systems Survey or two additional geography credits
  - 16-20 credits of upper-division electives in economics under departmental advisement to complete the minimum required 90 credits for the major, at least 8 credits must be at the 400 level.
  - Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP-3 points) at WWU with a minimum grade of C-. The CF course must be taken within the College of Business and Economics, while the WP requirement can be met with courses from any of the combined major departments. These requirements can be completed as part of the above required and elective credits. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements.

## Financial Economics, BA

Combined major offered by the department of Economics and the department of Finance and Marketing, College of Business and Economics



## 94-97 credits

### Introduction/What is the Study Financial Economics?

The study of Financial Economics will provide a combination of economic analysis and tools from accounting and finance that can be used to guide financial decisions. The Economics Department and the Department of Finance and Marketing jointly offer this major and strive to provide a program which gives students rigorous training in theory and applications of accounting, economics, and finance.

### Why Consider a Financial Economics Major?

This major is designed for students interested in both economics and finance, and is aimed particularly at those who wish to pursue careers in corporate finance, financial analysis, insurance and real estate, and/or government agencies where special emphasis is placed on financial economic knowledge.

Contact Information		
<b>CBE Admissions &amp; Scholarships</b> Dean's Office Parks Hall 419 360-650-3896 cbe@wwu.edu	<b>Economics Department Chair</b> Steve Henson Parks Hall 315A 360-650-4843 Steve.Henson@wwu.edu	<b>Economic Major Information: Academic Department Manager</b> Diane Brearley Parks Hall 315 360-650-3910 Diane.Brearley@wwu.edu Econ@wwu.edu
	<b>Finance &amp; Marketing Department Chair</b> Edwin A. Love Parks Hall 429 360-650-4614 Ed.Love@wwu.edu	<b>Finance Major Information: Academic Department Manager</b> Sandy Stratton Parks Hall 415 360-650-4202 Sandra.Mottner@wwu.edu

**Sample Careers**  
Actuary | Financial Planner/Analyst | Government | Investment Banker | Budget Analyst | Banking Securities | Financial Economist | Business Forecaster

**Major/Career Resources**  
[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students planning to major in Economics should declare their major as early as possible, preferably their first year at Western. Completion of the CBE foundation courses is not required to declare this combined major in economics.

**Admissions:** Programs in the College of Business and Economics (CBE) are selective and based upon prior academic performance and other evidence of high promise. For admission to CBE as a full Economics major, a student must have completed the following requirements:

- Confirmed admission to Western Washington University
- Achieved a 2.5 cumulative college GPA (including transfer work)

Complete the online application form at: <http://cbe.wwu.edu/cbe/students/application.shtml>.

**Advising tips:** 1) Complete MATH 157 and DSCI 205 requirements early; 2) For information regarding the MIS 220 Equivalency Exam see the Department of Decision Sciences website for test-out information:

<http://cbe.wvu.edu/dsci/mis-testout.shtml>; 3) Meet with your faculty advisor (assigned following admission to the major).

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- ACCT 341 - Intermediate Accounting Theory and Practice I
- ACCT 342 - Intermediate Accounting Theory and Practice II
- DSCI 205 - Business Statistics or equivalent
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- ECON 303 - The History of Economic Thought
- ECON 306 - Intermediate Microeconomics
- ECON 307 - Intermediate Macroeconomics
- ECON 375 - Introduction to Econometrics
- FIN 341 - Principles of Finance
- FIN 440 - Investments
- FIN 441 - Intermediate Financial Management  
(financial economics majors only may substitute ECON 375 for DSCI 305 as the prerequisite for FIN 441)
- FIN 444 - Financial Institutions and Markets
  - One course from:
    - FIN 448 - Portfolio Analysis and Management
    - FIN 449 - Cases in Financial Management
  - One course from:
    - ACCT 343 - Intermediate Accounting Theory and Practice III
    - ECON 411 - Monetary Economics
- MATH 124 - Calculus and Analytic Geometry I
- MATH 157 - Calculus With Applications to Business and Economics or equivalent
  - One course from:
    - CSCI 101 - Computers and Applications
    - MIS 220 - Introduction to Business Computer Systems
- 12 credits of upper-division economics electives under departmental advisement; a minimum of 8 of these credits must be at the 400 level
- 8 credits of upper-division finance electives under departmental advisement; a minimum of 4 of these credits must be at the 400 level
- Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP-3 points) at WWU with a minimum grade of C-. The CF and WP courses must be taken within CBE and can be completed as part of the above required and elective courses, prior to graduation. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements.

NOTE: ECON 311 may not be counted toward this major.

## Politics/Philosophy/Economics, BA

Combined major offered by the Department of Economics, College of Business and Economics, the Department of Political Science, College of Humanities and Social Sciences and the Department of Philosophy, College of Humanities and Social Sciences

### 83 credits

#### Introduction/What is the Study of Politics/Philosophy/Economics?

Providing an understanding of economic concepts and the functioning of the economy and to provide the ability to apply economic analysis in problem solving is the mission of the Economics Department. The Department strives to provide a major program which gives students rigorous training in both economic theory and applications.

The Politics/Philosophy/Economics major's broad and diverse curriculum is enhanced by the study of modern political science questions of political philosophy and the pursuit of social scientific research.

#### Why Consider a Politics/Philosophy/Economics Major?

This is a multidisciplinary major designed to provide a solid foundation in disciplines critical to decision making and leadership in economic, political and social service institutions.

Contact Information		
<b>Economics Department Chair</b> Steve Henson Parks Hall 315A 360-650-4843 Steve.Henson@wwu.edu	<b>Philosophy Department Chair</b> Ryan Wasserman Bond Hall 302A 360-650-3860 Ryan.Wasserman@wwu.edu	<b>Political Science Department Manager</b> Joan Blackwell Arntzen Hall 415 360-650-3469 Joan.Blackwell@wwu.edu
<b>Economics Major Information: Academic Department Manager</b> Diane Brearley Parks Hall 315 360-650-3910 Diane.Brearley@wwu.edu Econ@wwu.edu	<b>Philosophy Academic Department Manager</b> DeNora Lombard Bond Hall 302B 360-650-3859 DeNora.Lombard@wwu.edu	<b>Political Science Program Coordinator</b> Peggy Warner Arntzen Hall 415 360-650-3469 Peggy.Warner@wwu.edu

#### Sample Careers

Attorney | Analyst | Lobbyist | Diplomat | Urban/Regional Planner

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Students planning to major in Politics/Philosophy/Economics should declare their major as early as possible, preferably their first year at Western. Completion of the CBE foundation courses is not required to declare this combined major in economics.

This major must be approved by each department.

**Economics Department:** Students must have a 2.5 college-level GPA or better to declare an economics related major. Students can complete the online application form at:

<http://cbe.wwu.edu/cbe/students/application.shtml>.

**Philosophy Department:** In order to declare as a philosophy major or minor, one must first complete three philosophy courses (or 9 credits), with a C- or better in each of those courses.

Students wishing to declare as a major or minor should contact the Academic Department Manager or the Department Chair.

**Political Science Department:** Students are eligible to declare the political science major and any of the majors combined with political science if they have completed any three of the following core courses with an average grade of 2.7 or above: PLSC 250, 261, 271, 291, or the equivalent course(s) at another college or university. Due to high student demand and limited capacity, immediate access to specific courses cannot be guaranteed. Students who have no transfer credits for political science coursework: go to the political science department office in Arntzen Hall 415 with an unofficial WWU transcript showing the three completed courses from the list above. Students who have transfer credits for political science coursework from another institution must also bring an unofficial transcript from that institution showing the political science courses completed.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- ECON 303 - The History of Economic Thought
- ECON 310 - Public Finance
- PHIL 102 - Introduction to Logic
- PHIL 112 - Introduction to Philosophy: Moral Issues
- PHIL 114 - Introduction to Philosophy: Knowledge and Reality
- PHIL 320 - Ethical Theory I
- PHIL 350 - Political Philosophy
- PHIL 360 - Society, Law and Morality
- PLSC 250 - The American Political System
- PLSC 261 - Introduction to Political Theory
- One course from:
  - PLSC 271 - Introduction to International Relations
  - PLSC 291 - Introduction to Comparative Politics
  - 12 additional upper-division economics credits
  - 9 additional credits from the American Politics and Public Policy field
  - 4 additional credits from the Political Theory field
  - Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP-3 points) at WWU with a minimum grade of C-. The CF course must be taken within the College of Business and Economics, while the WP requirement can be met with courses from any of the combined major departments. These requirements can be completed as part of the above required and elective credits. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements.
  - 9 additional upper-division philosophy credits

## Minor

### Economics Minor

Department of Economics, College of Business and Economics

**24 credits**

## Introduction/What is the Study of Economics?

### Why Consider an Economics Minor?

Contact Information		
<b>CBE Admissions &amp; Scholarships</b>	<b>Department Chair</b>	<b>Minor Information:</b>
Dean's Office	Steven E. Henson	<b>Academic Department Manager</b>
Parks Hall 419	Parks Hall 315A	
360-650-3896	360-650-4843	
cbe@wwu.edu	Steve.Henson@wwu.edu	
Sample Careers		

Major/Career Resources  
[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students must have confirmed admission to Western Washington University and meet the grade and course requirements listed below.

Please contact the Department of Economics for required paperwork.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
  - Additional Economics courses selected under departmental advisement (may not include ECON 446 or ECON 447)

### Energy Policy Minor (see Environmental Studies Department)

Energy Policy Minor (see Environmental Studies Department)

## Economics Courses

#### **ECON 101 - Markets and Society**

An introduction to the U.S. economy and its role in the world economy. Analysis of current economic controversies at home and abroad. Issues may include overall economic performance, problems of hunger and poverty, and the issues of economic insecurity, inequality, and sustainability. The course will examine the emergence of globalization and regionalism, and their implications for the workers and the environment.

Credits: 4  
GUR Attributes: SSC

#### **ECON 140 - The Ecology and Economics of Salmon Recovery**

Focus on the 4 causes of salmon decline (Habitat, Hydropower, Harvest, and Hatcheries) to investigate the interactions between ecology and economics through lectures, reading and independent projects. Also offered as BIOL 140.

Credits: 4

GUR Attributes: SCI

**ECON 206 - Introduction to Microeconomics**

An overview of the modern market economy as a system for dealing with the problem of scarcity. Operation and decision-making of economic units; supply, demand and resource allocation; analysis of various market and industry structures; shortages, controls, social costs and benefits; international trade; comparative systems.

**Prerequisites & Notes:** MATH 112 or equivalent  
Credits: 4

GUR Attributes: SSC

**ECON 207 - Introduction to Macroeconomics**

An overview of the modern market economy as a system for dealing with the problem of scarcity. The analysis of relationships among such variables as national income, employment, inflation and the quantity of money. The roles of government expenditure, taxation and monetary policy; international finance; economic development.

**Prerequisites & Notes:** ECON 206 or ECON 446 or ECON 101; MATH 112 or equivalent

Credits: 4

GUR Attributes: SSC

**ECON 301 - Economics Issues**

Applies the tools and concepts learned in introductory micro and macro economics to a variety of contemporary issues. Emphasizes verbal and written communication skills through active participation in classroom activities. Enrollment priority given to economics majors. (Communications focus course.)

**Prerequisites & Notes:** ECON 206 and ECON 207; OR HNRS 254 or HNRS 202.

Credits: 4

**ECON 303 - The History of Economic Thought**

Development of economic thought from the Greek philosophers to the present. Emphasis on the micro, macro and critical traditions in economics following Adam Smith.

**Prerequisites & Notes:** ECON 206 and ECON 207; OR HNRS 254 or HNRS 202.

Credits: 4

**ECON 306 - Intermediate Microeconomics**

An analytical approach to the consumer, the firm and markets. The theory of pricing under conditions of perfect and imperfect market structures; the theory of factor markets.

**Prerequisites & Notes:** ECON 206 or HNRS 254 or HNRS 202; MATH 124 or MATH 157 or equivalent.

Credits: 4

**ECON 307 - Intermediate Macroeconomics**

Examination of the factors that determine the level of income, employment, output and prices in an economic system. Review and analysis of recent U.S. economic policy and performance.

**Prerequisites & Notes:** ECON 207 or HNRS 254 or HNRS 202; and MATH 124 or MATH 157 or equivalent.

Credits: 4

**ECON 308 - Sports Economics**

Economic analysis of the sports industry. Topics include the market for sports, the market for labor in sports, owners' goals, league structure, government involvement, and the role of the media and fans in the industry. Emphasis is on professional sports.

**Prerequisites & Notes:** ECON 206 or HNRS 254 or HNRS 202.

Credits: 4

**ECON 309 - Managerial Economics**

Application of economic principles to managerial decision making. Topics may include: Demand, costs and market structure and their relation to pricing, product choice and resource allocation. Cannot be counted towards majors in economics. Cannot be counted towards majors in economics.

**Prerequisites & Notes:** ECON 206 or HNRS 254 or HNRS 202; and MATH 124 or MATH 157 or equivalent.

Credits: 4

**ECON 310 - Public Finance**

## ECONOMICS

The efficiency, equity and stabilization impacts of public expenditure and revenue programs; emphasis on problems and institutions at the national level.

**Prerequisites & Notes:** ECON 206 and ECON 207; OR HNRS 254 or HNRS 202.  
Credits: 4

### **ECON 311 - Money and Banking**

The nature and functions of money and the role of depository institutions and central banks in affecting the supply of money and credit in the U.S. Considers the changing U.S. financial environment and the influence of monetary policy on interest rates, prices and the overall level of economic activity. Cannot be counted towards the Financial Economics major.

**Prerequisites & Notes:** ECON 206 and ECON 207; OR HNRS 254 or HNRS 202.  
Credits: 4

### **ECON 315 - Health Economics**

An introductory course in health economics. Students will learn about the supply and demand of health services as well as spending on health care. Students will gain knowledge of the health care sector and health economics in the U.S. to allow intelligent discussion/analysis of policy proposals.

**Prerequisites & Notes:** ECON 206 or HNRS 254 or HNRS 202; and DSCI 205; or permission of instructor.  
Credits: 4

### **ECON 317 - European Economic History**

Examines the development and industrialization process in Europe, emphasizing the main topic of what caused the industrialization process in each country. Countries to be studied include England, France, Germany and Russia.

**Prerequisites & Notes:** ECON 206 and 207; OR HNRS 254 or HNRS 202.  
Credits: 4

### **ECON 325 - Labor Market Economics**

Economics of the labor market, including labor force participation, racial and sexual

discrimination, the role of unions, collective bargaining, investments in human capital, and the structure of compensation.

**Prerequisites & Notes:** ECON 206 or HNRS 254 or HNRS 202.  
Credits: 4

### **ECON 333 - Introduction to Game Theory**

An analytical approach to the study of strategic interaction. Development of basic theory, including topics such as Nash equilibrium, repeated games, credibility, and mixed strategies. Applications will include markets and competition, auction design, voting, and bargaining.

**Prerequisites & Notes:** ECON 206 or HNRS 254 or HNRS 202.  
Credits: 4

### **ECON 337 – Economics Study Abroad**

This provides economics credit for courses taken abroad in a program approved by WWU. Students must present sufficient documentation to show that the material was successfully completed with a letter grade and is appropriate for upper division elective credit in Economics. Repeatable to a maximum of 12 credits.

**Prerequisites & Notes:** Enrollment in a WWU-approved study abroad program.  
Credits: 4  
Grade Mode: S/U

### **ECON 340 - Economics of Regulation**

This course covers broad questions regarding the benefits and costs of a wide range of regulatory policies such as: antitrust, pricing and entry regulation of public utilities, environmental regulation, and safety regulation. Included the main policy arguments concerning how and why the behavior of business should be restricted by government in its efforts to increase the well-being of the public.

**Prerequisites & Notes:** ECON 101 or ECON 206 or HNRS 254 or HNRS 202.  
Credits: 4

### **ECON 343 - Population, Environment, and World Agriculture**

Utilizes economic principles to understand the interactions among population growth, food demand, agricultural development, and natural resource utilization, degradation, and conservation.

**Prerequisites & Notes:** ECON 206 or HNRS 254 or HNRS 202.  
Credits: 4

### **ECON 355 - The Political Economy of Language and Culture**

An examination of the economics and politics of language and language policy.

**Prerequisites & Notes:** ECON 206 or HNRS 254 or HNRS 202, or admission to Fairhaven College, or permission of instructor.  
Credits: 2

### **ECON 360 - Introduction to International Economics**

The course will introduce students to the theory, practice, and institutions of international economics. Students will learn how the world economy works, the major benefits that it provides to people and nations, and the most serious problems that it faces.

**Prerequisites & Notes:** ECON 206 and ECON 207; OR HNRS 254 or HNRS 202.  
Credits: 4

### **ECON 361 - Introduction to International Economics and Business**

This course provides an overview of the world economy and of the role of business in international trade and investment. Students will learn about the causes of globalization and examine its consequences for individuals, nations and businesses. The focus of the course will be on examining the impact of international trade and business on economic well-being. Also offered as INTL 361.

**Prerequisites & Notes:** ECON 101 or ECON 206  
Credits: 4

### **ECON 364 - Topics in Canadian Economic History**

Selected issues in the development of the Canadian economy from the 17th century to the

present. Examines the importance of resources, agriculture and transportation in the economic growth of Canada.

**Prerequisites & Notes:** ECON 206 or HNRS 254 or HNRS 202.  
Credits: 2

### **ECON 365 - The Canadian Economy**

Examination of 20th-century Canadian economic policy. Topics focus on current economic issues in Canada.

**Prerequisites & Notes:** ECON 206 and ECON 207; OR HNRS 254 or HNRS 202.  
Credits: 4

### **ECON 366 - Canadian Business Environment**

This course provides an introduction to the Canadian business environment. The emphasis is on Canada-U.S. comparisons and on features of the Canadian business environment that are of greatest relevance for U.S. businesses that are considering trading with Canadian partners or investing in Canada.

**Prerequisites & Notes:** ECON 206 and ECON 207  
Credits: 4

### **ECON 375 - Introduction to Econometrics**

Use of statistical methods to estimate and test economic models. Theory and application of multiple regression techniques, with emphasis on the problems arising in the analysis of economic data.

**Prerequisites & Notes:** ECON 206 and ECON 207; MATH 240 or MATH 341 or DSCI 205; MATH 124 or MATH 157 or equivalent.  
Credits: 4

### **ECON 380 - Urban Economics**

Economic forces behind urban development, with emphasis on location decisions of households and firms. Economic analysis of urban problems including land use, transportation, housing and urban public finance.

**Prerequisites & Notes:** ECON 206 or HNRS 254 or HNRS 202.



# ECONOMICS

Credits: 4

## **ECON 381 - American Economic History**

American economic development from 17th century to present. Emphasis on resource endowment, social and economic conditions and institutions, growth and development processes, and the role of government.

**Prerequisites & Notes:** ECON 206 and ECON 207; OR HNRS 254 or HNRS 202.

Credits: 4

## **ECON 383 - Environmental Economics**

Explores the economic basis of environmental issues and policies. An examination of property rights, externalities and the common-property basis of environmental problems. Alternative policies are analyzed, involving such issues as air and water pollution, solid-waste disposal, hazardous substances, wilderness preservation and the protection of endangered species.

**Prerequisites & Notes:** ECON 206 or HNRS 254 or HNRS 202.

Credits: 4

## **ECON 384 - Energy Economics**

The role of energy in the economy and key aspects of energy supply and demand. Topics include the interrelationships among energy use, economic growth, and the environment; conservation; solar and 'unconventional' energy sources; world oil markets; regulation of gas and electric utilities; and U.S. energy policy.

**Prerequisites & Notes:** ECON 206 or HNRS 254 or HNRS 202.

Credits: 4

## **ECON 385 - Comparative Economic Systems**

A comparative analysis of the major world economic systems, including a critical appraisal of underlying philosophies, economic theories, structures, and performance. Includes case studies of specific economies, and the study of reform and transformation of economic systems, especially capitalism and socialism.

**Prerequisites & Notes:** ECON 206 or ECON 207 or HNRS 254 or HNRS 202.

Credits: 4

## **ECON 386 - The Economics of Electricity Markets**

Electricity markets have become more complex in recent years because of new energy production and usage technologies, regulatory changes, and increased environmental concerns. This course will look at demand and supply aspects of electricity markets, including the impact of government economic and environmental regulation. Emphasis will be on the U.S. electricity market.

**Prerequisites & Notes:** ECON 206

Credits: 4

## **ECON 388 - Economics of the European Union**

The European Union (EU) is the most advanced case study in multinational economic integration of our time. Topics covered include the theory of economic integration, institutions of the EU, various current policy and agenda issues, and a look at EU economic relations with the U.S. and world economies.

**Prerequisites & Notes:** ECON 206 and ECON 207; OR HNRS 254 or HNRS 202.

Credits: 4

## **ECON 389 - Economies of the Pacific Rim**

The Pacific Rim treated as a distinct economic region. Topics include economic development patterns, interdependence, and economic achievements and problems. Specific emphasis on trade, development and policy relations involving the U.S., Japan and the so-called newly industrialized countries.

**Prerequisites & Notes:** ECON 206 and ECON 207; OR HNRS 254 or HNRS 202.

Credits: 4

## **ECON 390 - Internship in Economics**

Eligibility outlined in departmental internship policy statement. Repeatable to a maximum of 10 cr.

**Prerequisites & Notes:** Economics major; permission required

Credits: 2-10

## **ECON 406 - Topics in Microeconomics**

Application of quantitative and theoretical tools in key areas of microeconomics, with emphasis on quantitative models of the consumer, cost and production analysis of the firm, and market analysis. Special topics may include choice under uncertainty, capital markets, game theory, general equilibrium theory, and the economics of information.

**Prerequisites & Notes:** ECON 306; DSCI 205 or MATH 341.  
Credits: 4

#### **ECON 407 - Topics in Macroeconomics**

Examination of current issues in macroeconomic theory and policy. Emphasis on recent U.S. experience, with particular attention given to inflation, unemployment, growth and the balance of payments. Includes extensive reading in current professional journals.

**Prerequisites & Notes:** ECON 306, ECON 307; DSCI 205 or MATH 341.  
Credits: 4

#### **ECON 410 - Benefit-Cost Analysis**

Benefit-cost analysis is an important tool for evaluating the economic impacts of public or private actions. Course provides students with a thorough understanding of the logical underpinnings of benefit-cost analysis and experience in applying benefit-cost analysis to 'real-world' problems.

**Prerequisites & Notes:** ECON 306 or ECON 309 or equivalent.  
Credits: 4

#### **ECON 411 - Monetary Economics**

Examines the theory and implementation of monetary policy. Topics may include the transmission mechanism of monetary policy, interest rate rules, the credibility of policymakers, and exchange rates. Special consideration is given to empirically measuring the impact of money on real economic variables and optimal monetary policy.

**Prerequisites & Notes:** ECON 307, ECON 375.  
Credits: 4

#### **ECON 412 - Economics of Tax Policy**

Positive and normative analysis of tax policy; topics include the taxation of savings, taxation of labor income, taxes on risk-taking and wealth, and optimal income and commodity taxation.

**Prerequisites & Notes:** ECON 306 and ECON 310  
Credits: 4

#### **ECON 430 - Experimental Economics**

This course introduces experiments as a tool in economic analysis. The course will examine experimental methodology and provide a first exposure to various experimental results. The course will stress the interaction of theory and experiment, seeking to relate questions in the theory of markets, games, and decisions to issues in experimental design and the analysis and interpretation of those results.

**Prerequisites & Notes:** ECON 306 or ECON 309; DSCI 205 or MATH 341.  
Credits: 4

#### **ECON 442 - Industrial Organization and Public Policy**

A study of firms and the markets in which they operate. Considerable emphasis placed on strategic interaction among firms. Topics include mergers, predatory pricing, advertising, patents, vertical relationships and antitrust.

**Prerequisites & Notes:** ECON 306 or ECON 309  
Credits: 4

#### **ECON 446 - Economics for the Teacher**

Presentation of basic microeconomic concepts including the operation and decision-making of households and businesses in a market economy. Special consideration is given to the development of classroom teaching strategies involving the use of games, simulations and audiovisual aids.

**Prerequisites & Notes:** teaching experience or current or expected enrollment in teacher education program  
Credits: 3

#### **ECON 447 - Methods for Teaching About the National Economy in the Public Schools**

Forces affecting the overall levels of output, employment and prices in the U.S. economy. The

## ECONOMICS

economic effects of government policies involving taxes, spending and the money supply. Special consideration is given to the development of classroom teaching strategies involving the use of games, simulations and audiovisual aids.

**Prerequisites & Notes:** ECON 206 or ECON 446 plus teaching experience or current or expected enrollment in teacher education program  
Credits: 3

### **ECON 448 - Methods for Teaching Personal Finance in the Public Schools**

This course is designed to provide educators with the background and training that they need to successfully integrate personal finance into their classes or to develop and present a new stand alone personal finance course. The on-site portion, typically conducted in a conference setting, will be supplemented by research and a project to be completed after the classroom portion of the course.

**Prerequisites & Notes:** Currently certificated teacher.  
Credits: 3

### **ECON 462 - International Trade**

The theory of international trade. Alternative approaches for explaining the pattern and terms of trade. An examination of the gains from trade and commercial policy. Includes issues of protectionism, economic integration and strategic trade policy.

**Prerequisites & Notes:** ECON 306 or ECON 309  
Credits: 4

### **ECON 463 - International Finance**

Balance of payments, adjustment mechanisms, international monetary system and international interdependence. Topics include determinants of exchange rate policy, the relationship between domestic monetary and exchange rate policies, and international policy coordination.

**Prerequisites & Notes:** ECON 307.  
Credits: 4

### **ECON 465 - Development Economics**

This course will study the special problems faced by the less developed countries of the world and the economic mechanisms that must be taken into account in raising living standards. Topics considered may include population growth, the demographic transition, savings and capital accumulation, education and human capital, health and human capital, institutions and the development process, the role of history and multiple equilibria, the role of expectations and multiple equilibria, and economic integration.

**Prerequisites & Notes:** ECON 306, ECON 307; DSCI 205 or MATH 341.  
Credits: 4

### **ECON 470 - Economic Fluctuations and Forecasting**

Theory and techniques of forecasting economic trends at the macro, micro and regional levels. Application of regression and time-series methods using PC econometric/forecasting software.

**Prerequisites & Notes:** ECON 306 or ECON 307; ECON 375 or MATH 342  
Credits: 4

### **ECON 475 - Econometrics**

Further topics in econometrics. Coverage may include systems of simultaneous equations, discrete-choice models, time series analysis, panel data, flexible functional forms, and nonparametric methods.

**Prerequisites & Notes:** ECON 306 or ECON 307; ECON 375 or MATH 342 or MATH 442  
Credits: 4

### **ECON 482 - Advanced Topics in Environmental Economics**

Examines an extended set of applications in environmental economics, with a focus on deepening the student's understanding of the field. Applications involve current controversies in environmental policy and management, as well as methodological issues. Topics include climate change, solid waste management and recycling, water quality, and other issues of current interest.

**Prerequisites & Notes:** ECON 383 or equivalent

Credits: 4

**ECON 483 - Resource Economics**

Principles of efficient resource allocation over time, distributional equity and cost/benefit analysis. Examines minerals and other exhaustible resources; forests, fisheries and other renewable resources; and public goods such as water and wilderness.

**Prerequisites & Notes:** ECON 306 or ECON 309  
Credits: 4

**ECON 484 - Economics of Alternative Energy**

Explores the economics of renewable energy and conservation. The economic history of renewable energy and the existing institutional framework are examined. Considers economic motivations for the expansion of renewable energy and conservation. Existing and prospective policies are analyzed. Examines the challenges associated with integrating renewable sources into existing energy systems. Various quantitative techniques are reviewed and practiced.

**Prerequisites & Notes:** ECON 383 and ECON 384  
Credits: 4

**ECON 491 - Issues in Political Economy**

Discussion and analysis of selected issues of significant economic and political content. Also offered as PLSC 491.

**Prerequisites & Notes:** senior standing; economics/political science combined major, or economics major/ political science minor, or permission of instructor.  
Credits: 4

**ECON 493 - Senior Seminar: Economics, the Environment and Natural Resources**

Discussion and analysis of selected issues in the economics of the environment and natural resources.

**Prerequisites & Notes:** senior standing; economics/environmental studies combined major; also offered as ESTU 493  
Credits: 4

# Finance & Marketing

## Introduction

The Department of Finance and Marketing provides the opportunity for study of business administration relating to financial and marketing management. These fields cover a variety of responsibilities in both public and private organizations. An emphasis on breadth, general knowledge and analytical skills pervades all levels of the undergraduate curriculum. Graduates from the finance and marketing department will have completed a broad business program plus a wide range of nonbusiness subjects, reflecting the department's belief that education should prepare students for satisfying achievements in life as well as business.

## Program Objectives

Departmental programs have been designed to prepare students for leadership roles in business and the community.

The educational objectives of the department are to:

- Encourage intellectual inquiry
- Provide students with the perceptual and analytical skills necessary in making decisions and evaluating policy in business
- Develop student understanding of the social, economic and regulatory environment of business
- Enhance educational opportunities through research activities of faculty and students

The program is designed for students with a variety of career goals including opportunities with financial institutions, manufacturing and retail firms, service industries and the public sector.

## Faculty

**EDWIN A. LOVE** (2008) Chair and Associate Professor. BA, Evergreen State College; MBA, University of Arizona; Ph.D, University of Washington.

**EARL D. BENSON** (1980) Professor. BS, University of Idaho; MA, Pennsylvania State University; PhD, University of Oregon.

**DAVID R. FEWINGS** (1985) Associate Professor. BSc, University of Manitoba; MBA, PhD, University of Toronto.

**PAMELA L. HALL** (1990) Associate Professor. BS, MPA, DBA, Louisiana Tech University.

**SOPHIE X. KONG** (2006) Associate Professor. BA, Nanjing University of China; MS, PhD, Florida State University.

**LEE D. McCLAIN** (1991) Senior Instructor. BA, MA, University of Missouri-Columbia; MBA, University of Pennsylvania

**SANDRA MOTTNER** (2001) Associate Dean and Professor. BA, Mary Baldwin College; MBA, The College of William and Mary; PhD, Old Dominion University.

**THOMAS J. OLNEY** (1986) Associate Professor. AB, Cornell University; MBA, PhD, Columbia University.

**DAVID S. RYSTROM** (1983) Associate Professor. BS, UCLA; MS, California State University, Northridge; PhD, University of Oregon.

**FARROKH SAFAVI** (1969) Professor. BA, BS, MBA, University of Teheran; MBA, DBA, University of Southern California.

**MARK G. STATON** (2012) Assistant Professor. BA, University of Virginia; MBA Boston University; MS, PhD, University of Washington.

**WENDY J. WILHELM** (1986) Professor. BA, MS, Tufts University; MBA, Cornell University; PhD, University of Washington.

**NICHOLAS X. WONDER** (2002) Associate Professor. BA, University of Washington; PhD, University of California-Berkeley.

## Departmental Mission

### **Finance**

The finance faculty provides education in finance to develop students with the goal that they will lead, manage, and positively contribute to firms and other organizations. We originate research and serve our college, university and society at large with professional expertise.

### **Marketing**

The marketing faculty provides education in marketing. We help undergraduates and MBA's to become better learners and thinkers able to manage firms and organizations in the public interest and in a global context. We originate research and we serve our college, university and society at large with professional expertise.

## Declaration Process

See the *College of Business and Economics* introductory section of this catalog for declaration of pre-major and major requirements and procedures.

## Other Departmental Information

### **The Curriculum**

Development of the department's curriculum has been guided by the standards of the AACSB International—The Association to Advance Collegiate Schools of Business. Students normally devote most of the freshman and sophomore years of study to completion of the General University Requirements (GURs) and the business administration major foundation courses. Several foundation courses satisfy GURs, and careful planning can save time for additional elective course work. Electives that emphasize oral and written communication skills are particularly recommended.

The junior and senior years are devoted primarily to upper-division core requirements and elective course work. The department offers concentrations in finance and marketing. Students who wish to complete a concentration must pay close attention to class scheduling because of prerequisites and limited offerings of some courses. Additional specific information can be found at the department website, [www.cbe.wvu.edu/fmkt/index.shtml](http://www.cbe.wvu.edu/fmkt/index.shtml)

### **Business Applications Software**

The use of personal computer systems to assist in data management, analysis and reporting of results is widespread in the curriculum of the finance and marketing department. Students are expected to have some proficiency in word processing and spreadsheet software at the time they enter upper-division finance and marketing department classes. The proficiency can be gained through several means, including formal class work at a university or community college, work experience or commercially offered classes. Students who have not otherwise gained these skills are expected to test out of or register for MIS 220 prior to their registration in DSCI 305, MIS 320, and FIN 341. Additional specific information can be found at [www.cbe.wvu.edu/fmkt/index.shtml](http://www.cbe.wvu.edu/fmkt/index.shtml)

## Communications Requirements

All business majors are required to take one communication focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses at WWU with a minimum grade of C-, all taken within the College of Business and Economics (CBE). Consult the online Timetable of Classes for the specific course sections that fulfill the CF and WP requirements. The requirements may normally be met by taking designated sections of concentration courses, but may be met by taking any other designated CBE course as well.

## Student Advising

For answers to routine questions concerning preparation and progress through the major, students should consult the finance and marketing department and the department website. Non-routine questions should be directed to the department chair or the department's academic department manager. Questions concerning individual areas of study should be directed to faculty who teach in that area.

After the declaration of a major, a student will be assigned a faculty advisor with whom the student must consult concerning mandatory and elective courses in the chosen major and concentration. The faculty advisor may also be a source of information concerning career objectives and opportunities.

## Enrollment Priorities

Because of high student demand for many business administration program courses, the department must give enrollment priority to students for whom those courses are requirements rather than electives. Priority is given to majors in CBE and other declared majors for whom the classes are required.

## Bachelor of Arts

### Business Administration — Finance Concentration, BA

Department of Finance & Marketing, College of Business and Economics

#### 88-90 credits

#### Introduction/What is the Study of Business Administration?

The Business Administration program has been designed to prepare students for leadership roles in business and the community. One program objective is to provide students with the perceptual and analytical skills necessary in making decisions and evaluating policy in business; another is to develop student understanding of the social, economic and regulatory environment of business. The program is designed for students with a variety of career goals, including opportunities with financial institutions, manufacturing and retail firms, service industries and the public sector.

#### Why Consider a Finance Concentration in the Business Administration Major?

The field of Finance encompasses many different areas including investments, financial institutions, corporate finance and real estate. Coursework is offered in each of these areas as well as courses in options and futures, multi-national finance and insurance. A graduate with a concentration in Finance may work as a financial securities or loan officer analyst, as well as a business financial manager, portfolio manager, or financial planner stockbroker.

#### Contact Information

##### CBE Admissions & Scholarships

Dean's Office  
Parks Hall 419  
360-650-3896  
cbe@wwu.edu

##### Department Chair

Edwin A. Love  
Parks Hall 429  
360-650-4614  
Ed.Love@wwu.edu

##### Major Information:

**Academic Department Manager**  
Sandy Stratton  
Parks Hall 415  
360-650-4202  
Sandy.Stratton@wwu.edu

#### Sample Careers

Mutual Fund Manager | Chief Financial Officer | Investment Banker | Financial Planner | Claims Adjuster/Examiner | Actuary | Financial Analyst | Appraiser

#### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

<http://cbe.wvu.edu/fmkt/finance.shtml>

### **How to Declare (Admission and Declaration Process):**

**Pre-major:** Students, who have confirmed admission to WWU, are in good academic standing with the University, have completed 45 credits and earned a GPA of 2.5 overall or 2.75 in the foundation courses they have completed, will be granted pre-major status. Pre-majors automatically become full majors upon completion of the minimum requirements.

**Full major:** Students must have completed the following requirements:

- Confirmed admission to WWU and have 45 credits or be in the CBE Distinguished Scholars program.
- Be in good academic standing with the University and meet one of the following GPA requirements:
  - Either:** 1) a minimum GPA of 2.75 in the eight Foundation Courses listed below, including grades from transfer courses and Advanced Placement credit **or** 2) a cumulative GPA of at least 2.50 in all college-level course work including transfer work.

**Provisional major:** Major status is granted provisionally to students who are completing their last foundation course(s) and would be eligible for full major status upon successful completion of their current course work.

**How to apply:** For consideration as a pre-major, provisional major or full major, complete the online application form at: <http://cbe.wvu.edu/cbe/students/application.shtml>.

**Advising tips:** 1) Complete MATH 157 and DSCI 205 requirements early; 2) For information regarding the MIS 220 Equivalency Exam see the Department of Decision Sciences website for test-out information: <http://cbe.wvu.edu/dsci/mis-testout.shtml>.

### **Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Foundation Courses

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- DSCI 205 - Business Statistics
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- MATH 157 - Calculus With Applications to Business and Economics
- MGMT 271 - Law and the Business Environment
- MIS 220 - Introduction to Business Computer Systems (or equivalent)

#### Core Courses

- DSCI 305 - Applied Business Statistics
  - FIN 341 - Principles of Finance
  - MGMT 311 - Introduction to Management and Organizational Behavior
  - MGMT 382 - Business and Its Environment
  - MIS 320 - Principles of Management Information Systems
  - MKTG 380 - Principles of Marketing
  - OPS 360 - Operations Management

#### Advanced Core

- One course from:
  - MGMT 492 - Entrepreneurial Problems
  - MGMT 495 - Strategic Management

#### Finance Concentration Courses



## FINANCE & MARKETING

- FIN 440 - Investments
- FIN 441 - Intermediate Financial Management
- FIN 444 - Financial Institutions and Markets
- One course from:
  - FIN 448 - Portfolio Analysis and Management
  - FIN 449 - Cases in Financial Management
- Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP) at WWU with a minimum grade of C-. The CF and WP courses must be taken within CBE and can be completed as part of the above required and elective courses, prior to graduation. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements.
- Accounting and Business majors must complete a minimum of 90 credits in areas other than accounting and business administration.

Two courses from the list below:

One of these courses must be a 400-level course. (FIN 448 or FIN 449 may be used as one of these courses if not used for the requirement above.)

- FIN 345 - Real Estate
- FIN 442 - Multinational Corporate Finance
- FIN 443 - Topics in Finance
- FIN 446 - Derivatives Markets
- FIN 447 - Commercial Bank Management
- FIN 454 - Risk Management and Insurance
- FIN 456 - Commercial Real Estate Investment
- FIN 466 - Option Trading Strategies

One course from the list below:

FIN 460 - Finance Apprenticeship

- FIN 490 - Internship in Finance
- Or any FIN course listed above (FIN 345, 442, 443, 446, 447, 454, 456, 466) except any duplication of finance courses.
- ACCT 331 - Cost Management
- ACCT 341 - Intermediate Accounting Theory and Practice I
- ACCT 375 - Income Taxation I
- ECON 306 - Intermediate Microeconomics
- ECON 307 - Intermediate Macroeconomics
- ECON 310 - Public Finance
- ECON 411 - Monetary Economics

### **Business Administration – Marketing Concentration, BA**

Department of Finance & Marketing, College of Business and Economics

#### **88-90 credits**

#### **Introduction/What is the Study of Business Administration?**

The Business Administration program has been designed to prepare students for leadership roles in business and the community. One program objective is to provide students with the perceptual and analytical skills necessary in making decisions and evaluating policy in business; another is to develop student understanding of the social, economic and regulatory environment of business. The program is designed for students with a

variety of career goals, including opportunities with financial institutions, manufacturing and retail firms, service industries and the public sector.

### Why Consider a Marketing Concentration in the Business Administration Major?

Marketing includes a variety of activities relating to product and service planning, pricing, communication and distribution. Many interesting career opportunities await marketing graduates, including product and brand management, advertising, public relations, sales and sales management, marketing research, distribution/traffic management and retail management and merchandising. A strong background in behavioral sciences or computer applications will complement marketing studies.

Contact Information		
<b>CBE Admissions &amp; Scholarships</b>	<b>Department Chair</b>	<b>Major Information:</b>
Dean's Office	Edwin A. Love	<b>Academic Department Manager</b>
Parks Hall 419	Parks Hall 429	Sandy Stratton
360-650-3896	360-650-4614	Parks Hall 415
cbe@wwu.edu	Ed.Love@wwu.edu	360-650-4202
		Sandy.Stratton@wwu.edu

Sample Careers
Product and Brand Manager   Marketing Research   Advertising and Public Relations

Major/Career Resources
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>
<a href="http://cbe.wwu.edu/fmkt/marketing.shtml">http://cbe.wwu.edu/fmkt/marketing.shtml</a>

### How to Declare (Admission and Declaration Process):

**Pre-major:** Students, who have confirmed admission to WWU, are in good academic standing with the University, have completed 45 credits and earned a GPA of 2.5 overall or 2.75 in the foundation courses they have completed, will be granted pre-major status. Pre-majors automatically become full majors upon completion of the minimum requirements.

**Full major:** Students must have completed the following requirements:

- Confirmed admission to WWU and have 45 credits or be in the CBE Distinguished Scholars program.
- Be in good academic standing with the University and meet one of the following GPA requirements:
  - Either:** 1) a minimum GPA of 2.75 in the eight Foundation Courses listed below, including grades from transfer courses and Advanced Placement credit **or** 2) a cumulative GPA of at least 2.50 in all college-level course work including transfer work.

**Provisional major:** Major status is granted provisionally to students who are completing their last foundation course(s) and would be eligible for full major status upon successful completion of their current course work.

**How to apply:** For consideration as a pre-major, provisional major or full major, complete the online application form at: <http://cbe.wwu.edu/cbe/students/application.shtml>.

**Advising tips:** 1) Complete MATH 157 and DSCI 205 requirements early; 2) For information regarding the MIS 220 Equivalency Exam see the Department of Decision Sciences website for test-out information: <http://cbe.wwu.edu/dsci/mis-testout.shtml>.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Foundation Courses

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- DSCI 205 - Business Statistics

## FINANCE & MARKETING

- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- MATH 157 - Calculus With Applications to Business and Economics
- MGMT 271 - Law and the Business Environment
- MIS 220 - Introduction to Business Computer Systems

### Core Courses

- DSCI 305 - Applied Business Statistics
- FIN 341 - Principles of Finance
- MGMT 311 - Introduction to Management and Organizational Behavior
- MGMT 382 - Business and Its Environment
- MIS 320 - Principles of Management Information Systems
- MKTG 380 - Principles of Marketing
- OPS 360 - Operations Management

### Advanced Core

One course from:

- MGMT 492 - Entrepreneurial Problems
- MGMT 495 - Strategic Management

### Marketing Concentration Courses

- MKTG 381 - Fundamentals of Marketing Research
- MKTG 382 - Buying Behavior and Analysis
- MKTG 489 - Marketing Management and Strategy

Four courses from the list below. One course substitution outside the MKTG courses listed below may be allowed with advisor and chair approval.

- MKTG 471 - Sports Marketing
- MKTG 473 - Innovation
- MKTG 474 - Marketing Strategies for Sustainability
- MKTG 475 - Brand Management
- MKTG 480 - Marketing Internship
- MKTG 481 - Advanced Marketing Research and Analysis
- MKTG 482 - Personal Selling and Sales Management
- MKTG 483 - Integrated Marketing Communications
- MKTG 484 - Retailing
- MKTG 486 - International Marketing Management
- MKTG 487 - Nonprofit Marketing
- MKTG 488 - Topics in Marketing

Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP) at WWU with a minimum grade of C-. The CF and WP courses must be taken within CBE and can be completed as part of the above required and elective courses, prior to graduation. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements.

Accounting and Business majors must complete a minimum of 90 credits in areas other than accounting and business administration.

## **Financial Economics, BA (see Economics Department)**

Financial Economics, BA (see the Department of Economics)

## Finance Courses

### **FIN 215 - Personal Finance**

(Not intended for students who plan to be finance majors.) Sources of personal income, saving and consumer spending patterns. Development of techniques for planning and budgeting consumption expenditures and saving, with special emphasis on the use of saving allocations to achieve personal goals; real property, insurance, financial investment, retirement, estate and tax planning.

Credits: 4

GUR Attributes: SSC

### **FIN 216 - Personal Investing**

Introduction to stocks, bonds, and other financial assets, risk and return, and basics of trading securities. Discussion of portfolios, diversification, asset allocation, mutual funds, risk tolerance, life cycle investing, tax issues, gender issues and behavioral finance.

Credits: 4

### **FIN 341 - Principles of Finance**

Core principles of financial management and goal of businesses, financial institutions and markets, time value of money, capital budgeting, stock and bond valuation, capital structure, risk and return, and financial analysis and planning.

**Prerequisites & Notes:** Sophomore status. ACCT 245, DSCI 205, MIS 220 or equivalent.

Credits: 4

### **FIN 345 - Real Estate**

Real estate law; government regulation of real estate use; development, marketing and financing of commercial and residential real estate.

**Prerequisites & Notes:** Majors Only. MGMT 271, FIN 341

Credits: 4

### **FIN 440 - Investments**

Operation of securities markets, investment risk and return, security characteristics, portfolio selection and management, introduction to

options, mutual funds, stock and bond valuation, performance evaluation.

**Prerequisites & Notes:** Majors Only. FIN 341  
Credits: 4

### **FIN 441 - Intermediate Financial Management**

An integrated approach to financial management including study of intermediate-level financial theory and its application to financial decision making under uncertainty.

**Prerequisites & Notes:** Majors Only. FIN 341.  
Credits: 4

### **FIN 442 - Multinational Corporate Finance**

Introduction to multinational corporate financial management. International financial operations, capital structure and investment decisions, currency risk, hedging, and related topics with consideration of institutional, ethical, regulatory, demographic, cultural and financial environment issues.

**Prerequisites & Notes:** Majors Only. FIN 341.  
Credits: 4

### **FIN 443 - Topics in Finance**

Varying topics in finance such as financial planning, capital budgeting, working capital management and multinational corporate finance. Repeatable with various topics to a maximum of 8 cr.

**Prerequisites & Notes:** Majors Only. Vary by topic.

Credits: 4

### **FIN 444 - Financial Institutions and Markets**

Determination and behavior of interest rates in financial markets; measurement and management of interest rate risk; pricing of financial instruments, primarily debt securities; function and description of financial intermediaries; purpose, functions, and description of financial markets.

**Prerequisites & Notes:** Majors Only. FIN 341

## FINANCE & MARKETING

Credits: 4

### **FIN 446 - Derivatives Markets**

Pricing of options, futures, forwards, and swaps; role of derivative contracts in hedging, speculation, and arbitrage; institutional details of derivatives markets.

**Prerequisites & Notes:** Majors Only. FIN 440.  
Credits: 4

### **FIN 447 - Commercial Bank Management**

Management of commercial banks and similar depository institutions, emphasizing the measurement and control of risk in asset and liability management. Issues in contemporary banking.

**Prerequisites & Notes:** Majors Only. FIN 444  
Credits: 4

### **FIN 448 - Portfolio Analysis and Management**

Examination of issues and techniques associated with the management of investment portfolios. Topics include the development of market expectations, risk management, portfolio diversification, the inclusion of real assets and human capital in the portfolio decision, risk assessment, asset allocation, and portfolio performance measurement.

**Prerequisites & Notes:** Majors Only. DSCI 305 or ECON 375, FIN 440, FIN 444  
Credits: 4

### **FIN 449 - Cases in Financial Management**

Case studies are utilized to develop insight and provide experience in the application of financial theory and practice to such decision-making areas as working capital management, capital budgeting, capital structure determination and dividend policy.

**Prerequisites & Notes:** Majors Only. FIN 441; DSCI 305 or ECON 375; knowledge of spreadsheets.  
Credits: 4

### **FIN 454 - Risk Management and Insurance**

Personal and organizational risk and the means by which such risk may be minimized, transferred or otherwise managed. Employee benefits.

Management and regulation of insurance companies.

**Prerequisites & Notes:** FIN 341  
Credits: 4

### **FIN 456 - Commercial Real Estate Investment**

Investment strategy, selection, financing, appraisal of income properties such as rentals, apartments condos, office buildings, shopping centers and other secure purpose real estate.

**Prerequisites & Notes:** Majors Only. FIN 345  
Credits: 4

### **FIN 460 - Finance Apprenticeship**

Finance-related employment, plus research and/or special project experience. Emphasis is on applying finance principles in an academically guided setting. Minimum requirements include a written proposal, daily/weekly journals of activities, and a comprehensive final report. Personal selling and clerical activities are not acceptable. Four credits may be applied as one elective in the finance concentration, but credits may not be applied to the financial economics major. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** Majors Only. FIN 341, FIN 440. Permission of instructor.  
Credits: 4

### **FIN 466 - Option Trading Strategies**

Focuses on experiential learning with each student creating and managing a portfolio of securities and options. A live paper trading platform offers real world trading experiences at real time market prices. Lectures and instructor guidance develops personal and professional knowledge and skills in using financial securities and derivatives markets.

**Prerequisites & Notes:** Majors only. FIN 440.  
Credits: 4

### **FIN 490 - Internship in Finance**

Practical application of skills and theories learned in the classroom through work or special project experience in private or public organizations. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** Majors Only. Permission

of instructor.  
Credits: 1-4

## Marketing Courses

### **MKTG 380 - Principles of Marketing**

Identification and analysis of relevant opportunities and constraints in consumer and industrial target markets. Management of the marketing mix including product planning, distribution institutions and activities, promotion and pricing.

**Prerequisites & Notes:** Junior status. ACCT 240 or ETEC 216; and ECON 206.  
Credits: 4

### **MKTG 381 - Fundamentals of Marketing Research**

The primary tool for exploring new opportunities in the marketplace. Emphasis will be on how to: 1) specify information needs and design a research study to meet those needs; 2) collect, analyze and use marketing research data to make effective marketing decisions; 3) communicate the research findings and their implications to various publics. This course should be taken concurrently with MKTG 382.

**Prerequisites & Notes:** Majors Only. MKTG 380; co-requisite MKTG 382.  
Credits: 4

### **MKTG 382 - Buying Behavior and Analysis**

Perception, motivation, learning, attitude structure and change, social influences and cultural forces relevant to buyer behavior and decision processes. Implications for marketing planning, analysis and management.

**Prerequisites & Notes:** Majors Only. MKTG 380; co-requisite MKTG 381.  
Credits: 4

### **MKTG 384 - Marketing and Sustainability**

This course will provide students with the skills for developing and marketing a sustainable product. It will cover key concepts and tools related to marketing mix decisions, such as product design-for-environment, pricing based on full cost accounting, greening of the supply chain, and life

cycle impact assessment. Strategies for reducing the environmental impacts of products and services will be emphasized.

**Prerequisites & Notes:** MKTG 380. Declared Business and Sustainability Majors Only. (CBE Majors take MKTG 474.)  
Credits: 4

### **MKTG 471 - Sports Marketing**

Application of marketing principles and concepts in the sports industry. Includes sponsorships, branding, promotions, public relations, licensing, and sports consumer research and behavior.

**Prerequisites & Notes:** Majors Only. MKTG 380.  
Credits: 4

### **MKTG 473 - Innovation**

This course explores strategies for effective commercialization of innovation and key concepts in branding. Course will focus on three frameworks for innovation management, and students will discuss and apply these frameworks through several business cases.

**Prerequisites & Notes:** Majors only. MKTG 381 and MKTG 382.  
Credits: 4

### **MKTG 474 - Marketing Strategies for Sustainability**

This course will provide students with the skills for developing and marketing a sustainable product. It will cover key concepts and tools related to marketing mix decisions, such as product design-for-environment, pricing based on full cost accounting, greening of the supply chain, and life cycle impact assessment. Strategies for reducing the environmental impacts of products and services will be emphasized.

**Prerequisites & Notes:** Majors only. MKTG 381 and MKTG 382.  
Credits: 4

### **MKTG 475 - Brand Management**

Analysis of brand strategies and concepts such as brand identity, brand equity, and the branding process.

## FINANCE & MARKETING

**Prerequisites & Notes:** MKTG 380, MKTG 381, MKTG 382  
Credits: 4

### **MKTG 476 - Digital Marketing**

Digital Marketing addresses the various ways that today's interactive online opportunities impact marketing decisions. Topics include: marketing research through "Big Data" analytics, product co-creation, online distribution channels, dynamic pricing, as well as owned, earned and paid media, Search Engine Optimization (SEO), Pay-Per-Click (PPC) promotion, social media campaigns and others. Both strategies and implementation will be discussed.

**Prerequisites & Notes:** MKTG 381 and MKTG 382.  
Credits: 4

### **MKTG 480 - Marketing Internship**

Marketing-related employment, research or special project experience. Emphasis is on applying marketing principles in an academically guided setting. Minimum requirements include a written proposal and a comprehensive final report. Cannot be used as one of the two 400-level marketing elective prerequisites for MKTG 489; however, MKTG 480 may be used as one of the four 400-level MKTG electives in the marketing concentration.

**Prerequisites & Notes:** Majors Only. MKTG 381, MKTG 382. Permission of instructor.  
Credits: 4

### **MKTG 481 - Advanced Marketing Research and Analysis**

Focuses on advanced questionnaire design, enhancing the validity of survey research, value of information and multivariate analysis of market research data. The course is based around a market research project completed for a real business client.

**Prerequisites & Notes:** Majors Only. MKTG 381; MKTG 382; DSCI 305 or concurrent.  
Credits: 4

### **MKTG 482 - Personal Selling and Sales Management**

Planning and implementation of personal selling activities. Management of the sales force -- objectives, recruiting, selection, training, motivation, compensation, evaluation and control. Emphasis on sustainable business-to-business selling.

**Prerequisites & Notes:** Majors Only. MKTG 382  
Credits: 4

### **MKTG 483 - Integrated Marketing Communications**

Covers the different types of marketing communications and how to integrate them into a coherent IMC plan: advertising (media and creative strategies), sales promotion, public relations, direct marketing, event sponsorship, brand placement, internet advertising, search engine optimization, web site design, and viral communication tactics (e.g., social networks, user-generated content). Emphasis is on 'new media' and Web 2.0 strategies. Students develop a comprehensive IMC plan for an existing or invented product or service.

**Prerequisites & Notes:** Majors Only. MKTG 381, MKTG 382  
Credits: 4

### **MKTG 484 - Retailing**

Administration and strategic planning in large and small retail firms. Management of retail functions: stock planning, inventory control, markup and pricing, retail accounting, merchandising, retail promotion, human resources management, store location, design and layout, legal and ethical issues, information systems.

**Prerequisites & Notes:** Majors Only. MKTG 381, MKTG 382.  
Credits: 4

### **MKTG 486 - International Marketing Management**

Formulation and implementation of international marketing strategies. Analysis of the contemporary global marketing environment, marketing mix issues and decisions in international markets, global competitive analysis and strategy,

organizing for international marketing, current problems and practices in multinational firms.

**Prerequisites & Notes:** Majors Only. MKTG 380  
Credits: 4

**MKTG 487 - Nonprofit Marketing**

Marketing strategies for all types of nonprofit organizations. Includes marketing mix, as well as fund raising, volunteer management, nonprofit branding, and the use of public media.

**Prerequisites & Notes:** Majors Only. MKTG 381  
Credits: 4

**MKTG 488 - Topics in Marketing**

Varying topics in marketing such as distribution systems, marketing on the internet, geographic information systems in business and direct marketing. Repeatable with various topics to a maximum of 8 cr.

**Prerequisites & Notes:** Majors Only. Vary by topic.  
Credits: 4

**MKTG 489 - Marketing Management and Strategy**

Application of marketing management and strategic concepts in a case problem and market simulation format. Emphasis on marketing planning, implementation of the marketing mix and utilization of market research information.

**Prerequisites & Notes:** Majors Only. MKTG 381; MKTG 382; and two 400-level marketing courses (excluding MKTG 490).  
Credits: 4

**MKTG 490 - Customized Internship in Marketing**

Practical application of skills and theories learned in the classroom through work or special project experience in public or private organizations. Repeatable to a maximum of 12 credits. Cannot be applied to the marketing concentration.

**Prerequisites & Notes:** Majors Only. MKTG 381 and MKTG 382. Permission of instructor.  
Credits: 1-4



# Management

## Introduction

Management describes what is perhaps the most challenging and difficult of human endeavors. It is the process by which we attempt to attain goals beyond the reach of a single individual. Collective action requires that we work effectively and efficiently with and through others. Managing is not a single skill, but rather a dynamic body of knowledge with the goal of the fusion of multiple and diverse skills possessed by many into a cohesive force, the effectiveness of which exceeds the sum of its parts. Management is eclectic, drawing upon the entire fund of human knowledge and experience that is necessary to attain the goals established.

Management is also almost universal in application. Any time two or more people join together in pursuit of a common goal and one leads by virtue of skill, experience, personality or authority, management has been initiated.

## Faculty

**MARY D. SASS** (2005) Chair and Associate Professor. BS, University of Albany; PhD, George Washington University.

**BRIAN K. BURTON** (1995) Dean and Professor. BA, MBA, PhD, Indiana University.

**CRAIG P. DUNN** (2005) Associate Professor. BS, California State University-Long Beach; MBA, California State University-Bakersfield; PhD, Indiana University.

**JOSEPH E. GARCIA** (1985) Bowman Distinguished Professor in Leadership. BA, State University of New York College at Cortland; MA, Western Washington State College; PhD, University of Utah.

**JASON M. KANOV** (2007) Associate Professor. BS, University of Florida-Gainesville; MA, PhD, University of Michigan-Ann Arbor.

**JONGWOOK KIM** (2003) Associate Professor. BBA, MBA, Yonsei University; PhD, University of Illinois.

**MARKO MADUNIC** (2010) Assistant Professor. BA, MBA, University of Central Florida; Ph.D., University of Illinois at Urbana Champaign.

**GLENN M. MCEVOY** (2014) Assistant Professor. BS, University of California, Berkeley; MS, PhD, University of Colorado, Boulder.

**K. SKYLAR POWELL** (2013) Assistant Professor. BA, Montana State University; MA, Durham University, UK; PhD, University of Hawai'i.

**THOMAS W. ROEHL** (1999) Professor. BA, Valparaiso University; MA, University of Oregon; PhD, University of Washington.

**KRISTI M. TYRAN** (2001) Associate Professor. BS, MBA, University of Washington; PhD, University of California, Irvine.

**DANIEL M. WARNER** (1978) Professor. BA, JD, University of Washington; MA, Western Washington University.

## Departmental Mission

The mission of the Department of Management at Western Washington University is to advance the understanding of managerial issues in a complex environment. We do this to challenge students and faculty to achieve their professional aspirations and civic responsibilities. To accomplish this we develop an environment where students and faculty learn, integrate, and apply business principles and liberal arts.

Our values, in no particular order, are:

**Higher level learning.** We value learning that integrates a variety of disciplines, perspectives, and ideas. Such learning occurs on more than a rudimentary basis. We promote intellectual rigor, lifelong learning, and critical thinking. We do this both in our own research and in our teaching. We engage in service for our professional areas to promote higher level learning throughout our disciplinary communities.

**Civic and community engagement.** We are committed to giving our students an understanding of what it means to be a citizen of the world, community and organization. We want students to understand the importance of being engaged in the world for the sake of the organization they are a part of, but also for the benefit of the world in general, as well as for themselves. We model our commitment to civic and community engagement by serving our college and university in various roles. We also engage in service with the local community and the disciplinary communities we participate in as part of our profession.

**Collegiality.** By this we mean that we have respectful relationships with each other, we are open to feedback, and we communicate fully and truthfully with one another. We are interdisciplinary in our approach to research and teaching, and support each other in our own passionate pursuits. We are committed to service to our department, college and university so as to promote collegiality throughout our WWU system.

**Professionalism.** Professionalism is defined as presenting ourselves in a business-like manner in attire, speech, communication, and interpersonal relationships. We model professionalism and teach professionalism. We are professional with each other, our students, and community members who participate in our environment of teaching and learning. We provide our students with opportunities to practice professionalism in our classes and out in the community. We give feedback to our students in professional and ethical practice. We are professional in our service to the department, college, university and community.

## Declaration Process

See the College of Business and Economics (CBE) introductory section of this catalog for declaration of pre-major and major requirements and procedures.

## Other Departmental Information

### *The Curriculum*

The development of the curricula in the Department of Management has been guided by the standards of the AACSB International-the Association to Advance Collegiate Schools of Business and those of the Academy of Management. These standards stress a broad education preparing students for managerial roles in business and leadership roles in society.

Curricular paths in the department are structured:

- To develop competence in analysis, decision making and evaluation in both public and private organizations
- To develop and enrich interpersonal skills
- To develop the competence to manage within the social, economic and international environment of organizations
- To provide access to the technical skills necessary in each of the major functional areas of organizations
- To enhance educational opportunity through the theoretical and applied research and business consulting activities of its faculty and students
- To encourage intellectual inquiry into the lessons and skills of the past and present so as to be able to affect the future
- To develop and promote ethical behavior and social responsibility in future managers

Students normally devote most of the freshman and sophomore years of study to completion of the General University Requirements (GURs) and foundation courses in the major. Several foundation courses also satisfy GUR. Careful planning may save time for additional elective course work. Electives which emphasize oral and written communication skills are particularly recommended. The junior and senior years are primarily devoted to core degree requirements and elective course work.

## MANAGEMENT

### **Sigma Iota Epsilon (ΣIE)**

The Department of Management sponsors a chapter of the National Management Honorary, ΣIE. Membership is by invitation to declared majors in the department and is based on scholastic achievement and will be noted on the student's transcript. An induction is held annually in the winter quarter and several special events are scheduled throughout the year.

### **Student Advising**

For answers to routine questions, and prior to declaration, students should consult this catalog and the department's *Planning Guide*. For non-routine questions, inquiry should be made at the departmental office for referral to an appropriate faculty member. A faculty advisor will be assigned to each student upon acceptance into the major.

### **Enrollment Priorities**

Because of high student demand for management courses, the department must give enrollment priority to students for whom those courses are requirements rather than electives. Priority is given to majors in CBE and other declared majors for whom the classes are required.

## **Bachelor of Arts**

### **Business Administration - General Concentration, BA (Management)**

Department of Management, College of Business and Economics

#### **88-90 credits**

#### **Introduction/What is the Study of Business Administration?**

The Business Administration program is designed to prepare students for leadership roles in business and the community. One program objective is to provide students with the perceptual and analytical skills necessary to make decisions and evaluate policies in business; another is to develop student understanding of the social, economic and regulatory environments in business. The program is designed for students with a variety of career goals, including opportunities with financial institutions, manufacturing and retail firms, service industries and the public sector.

#### **Why Consider a General Concentration in Business Administration (Management) Major?**

The College of Business and Economics prepares men and women for positions of leadership and stewardship in the management and administration of complex organizations — from small companies to large multinational enterprises. Students develop managerial skills, analytic economic skills and interpersonal sensitivities, as well as quantitative and accounting skills. All students earning a degree in Business Administration will develop significant understanding of management information systems and computing.

#### Contact Information

##### **CBE Admissions & Scholarships**

Dean's Office  
Parks Hall 419  
360-650-3896  
cbe@wwu.edu

##### **Department Chair**

Mary D. Sass  
Parks Hall 351  
360-650-2648  
Mary.Sass@wwu.edu

##### **Major Information:**

**Academic Department Manager**  
Cristina Nelson  
Parks Hall 351  
360-650-2902  
Cristina.Nelson@wwu.edu

### Sample Careers

Project Management | Event Planning | Management Consulting | Nonprofit Management | Government | Small Business

### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

**Pre-major:** Students, who have confirmed admission to WWU, are in good academic standing with the University, have completed 45 credits and earned a GPA of 2.5 overall or 2.75 in the foundation courses they have completed, will be granted pre-major status. Pre-majors automatically become full majors upon completion of the minimum requirements.

**Full major:** Students must have completed the following requirements:

- Confirmed admission to WWU and have 45 credits or be in the CBE Distinguished Scholars program.
- Be in good academic standing with the University and meet one of the following GPA requirements:
  - Either:** 1) a minimum GPA of 2.75 in the eight Foundation Courses listed below, including grades from transfer courses and Advanced Placement credit **or** 2) a cumulative GPA of at least 2.50 in all college-level course work including transfer work.

**Provisional major:** Major status is granted provisionally to students who are completing their last foundation course(s) and would be eligible for full major status upon successful completion of their current course work.

**How to apply:** For consideration as a pre-major, provisional major or full major, complete the online application form at: <http://cbe.wvu.edu/cbe/students/application.shtml>.

**Advising tips:** 1) Complete MATH 157 and DSCI 205 requirements early; 2) For information regarding the MIS 220 Equivalency Exam see the Department of Decision Sciences website for test-out information: <http://cbe.wvu.edu/dsci/mis-testout.shtml>.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Foundation Courses

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- DSCI 205 - Business Statistics
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- MATH 157 - Calculus With Applications to Business and Economics
- MGMT 271 - Law and the Business Environment
- MIS 220 - Introduction to Business Computer Systems (or equivalent)

#### Core Courses

- DSCI 305 - Applied Business Statistics
- FIN 341 - Principles of Finance
- MGMT 311 - Introduction to Management and Organizational Behavior
- MGMT 382 - Business and Its Environment
- MIS 320 - Principles of Management Information Systems
- MKTG 380 - Principles of Marketing
- OPS 360 - Operations Management
- One course from:
  - MGMT 492 - Entrepreneurial Problems

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- MGMT 495 - Strategic Management

## General Concentration Courses

□ 28 credits of approved upper-division elective courses:

Students in the department may elect to work with their faculty advisor in designing a set of upper-division courses appropriate to their academic interests. The resulting course of study shall have prior approval of the advisor and include the following: HRM 322, MGMT 313 and five additional upper-division CBE courses.

Students interested in entrepreneurial management or human resource management should select the general option and inform the department of that interest. They will be advised of the preferred courses for students intending to embark upon entrepreneurial or human resource management careers or careers in small business.

□ Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP) at WWU with a minimum grade of C-. The CF and WP courses must be taken within CBE and can be completed as part of the above required and elective courses, prior to graduation. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements.

□ Accounting and Business majors must complete a minimum of 90 credits in areas other than accounting and business administration.

## **Business Administration – International Business Concentration, BA**

Department of Management, College of Business and Economics

### **88-90 credits**

#### **Introduction/What is the Study of Business Administration?**

The Business Administration program has been designed to prepare students for leadership roles in business and the community. One program objective is to provide students with the perceptual and analytical skills necessary to make decisions and evaluate policies in business; another is to develop student understanding of the social, economic and regulatory environments in business. The program is designed for students with a variety of career goals, including opportunities with financial institutions, manufacturing and retail firms, service industries and the public sector.

#### **Why Consider an International Business Concentration in Business Administration Major?**

An International Business concentration prepares a student to work with business relationships across borders in a variety of situations. Often combining some training in language and in other business areas, graduates should be able to help manage these business relationships that are central to the global environment that will define their careers. For more information, see the IBUS website.

Contact Information			
<b>CBE Admissions &amp; Scholarships</b>	<b>Major Information: International Business</b>	<b>Management Department Chair</b>	<b>Academic Department Manager</b>
Dean's Office	Professor Tom Roehl	Mary D. Sass	Cristina Nelson
Parks Hall 419	Parks Hall 211	Parks Hall 351	Parks Hall 351
360-650-3896	360-650-4809	360-650-2648	360-650-2902
cbe@wwu.edu	Tom.Roehl@wwu.edu	Mary.Sass@wwu.edu	Cristina.Nelson@wwu.edu

#### Sample Careers

Import/Export Management | Law | Public Policy | International Non-Profit | International Marketing | Management of International | Relationships in Business | Analysis of International | Competitiveness

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

**Pre-major:** Students, who have confirmed admission to WWU, are in good academic standing with the University, have completed 45 credits and earned a GPA of 2.5 overall or 2.75 in the foundation courses they have completed, will be granted pre-major status. Pre-majors automatically become full majors upon completion of the minimum requirements.

**Full major:** Students must have completed the following requirements:

- Confirmed admission to WWU and have 45 credits or be in the CBE Distinguished Scholars program.
- Be in good academic standing with the University and meet one of the following GPA requirements:
  - Either:** 1) a minimum GPA of 2.75 in the eight Foundation Courses listed below, including grades from transfer courses and Advanced Placement credit **or** 2) a cumulative GPA of at least 2.50 in all college-level course work including transfer work.

**Provisional major:** Major status is granted provisionally to students who are completing their last foundation course(s) and would be eligible for full major status upon successful completion of their current course work.

**How to apply:** For consideration as a pre-major, provisional major or full major, complete the online application form at: <http://cbe.wvu.edu/cbe/students/application.shtml>.

**Advising tips:** 1) Complete MATH 157 and DSCI 205 requirements early; 2) For information regarding the MIS 220 Equivalency Exam see the Department of Decision Sciences website for test-out information: <http://cbe.wvu.edu/dsci/mis-testout.shtml>.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Foundation Courses

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- DSCI 205 - Business Statistics
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- MATH 157 - Calculus With Applications to Business and Economics
- MGMT 271 - Law and the Business Environment
- MIS 220 - Introduction to Business Computer Systems (or equivalent)

## Core Courses

- DSCI 305 - Applied Business Statistics
- FIN 341 - Principles of Finance
- MGMT 311 - Introduction to Management and Organizational Behavior
- MGMT 382 - Business and Its Environment
- MIS 320 - Principles of Management Information Systems
- MKTG 380 - Principles of Marketing
- OPS 360 - Operations Management
- One course from:
  - MGMT 492 - Entrepreneurial Problems
  - MGMT 495 - Strategic Management

## International Business Concentration Courses

- IBUS 370 - Introduction to International Business

## MANAGEMENT

- IBUS 470 - International Business Operations
- One course from:
  - ACCT 451 - International Accounting
  - FIN 442 - Multinational Corporate Finance
  - IBUS 473 - International Trade Operations
  - IBUS 474 - Topics in International Business
  - MGMT 337 - Management Study Abroad
  - MGMT 481 - Managing Cultural Diversity
  - MKTG 486 - International Marketing Management
  - OPS 466 - Supply Chain Management
- Two courses from:
  - ECON 343 - Population, Environment, and World Agriculture
  - ECON 365 - The Canadian Economy
  - ECON 385 - Comparative Economic Systems
  - ECON 462 - International Trade
  - ECON 463 - International Finance
  - ECON 388 - Economics of the European Union
  - ECON 389 - Economies of the Pacific Rim
  - ENVS 342 - Geography of the World Economy
  - INTL 305 - Education Abroad
- Or other 300-level Social Science course approved by advisor
- Two courses under advisement (at least one course from CBE)
- Complete at least one of the following:
  - An approved foreign education experience
  - A second-year college-level language study
  - A qualified global internship
- Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP) at WWU with a minimum grade of C-. The CF and WP courses must be taken within CBE and can be completed as part of the above required and elective courses, prior to graduation. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements. An International Business student completing a double major may satisfy the upper-division writing proficiency requirement in either major.
- Accounting and Business majors must complete a minimum of 90 credits in areas other than accounting and business administration.

### **Business Administration – Management Concentration, BA**

Department of Management, College of Business and Economics

#### **88-90 credits**

#### **Introduction/What is the Study of Business Administration?**

The Business Administration program is designed to prepare students for leadership roles in business and the community. One program objective is to provide students with the perceptual and analytical skills necessary to make decisions and evaluate policies in business; another is to develop student understanding of the social, economic and regulatory environment of business. The program is designed for students with a variety of career goals, including opportunities with financial institutions, manufacturing and retail firms, service industries and the public sector.

## Why Consider a Management Concentration in Business Administration Major?

A management concentration prepares a student to work with people in a variety of contexts. While other business disciplines focus on business tasks, management focuses on how to motivate others to accomplish these tasks efficiently and effectively with high quality results. Students learn how to manage projects, work with teams, implement changes, and be effective leaders.

Contact Information		
<b>CBE Admissions &amp; Scholarships</b> Dean's Office Parks Hall 419 360-650-3896 cbe@wwu.edu	<b>Department Chair</b> Mary D. Sass Parks Hall 351 360-650-2648 Mary.Sass@wwu.edu	<b>Major Information:</b> <b>Academic Department Manager</b> Cristina Nelson Parks Hall 351 360-650-2902 Cristina.Nelson@wwu.edu
Sample Careers		
Project Management   Event Planning   Management Consulting   Non-profit Management   Government   Small Business		
Major/Career Resources		
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>		

## How to Declare (Admission and Declaration Process):

**Pre-major:** Students, who have confirmed admission to WWU, are in good academic standing with the University, have completed 45 credits and earned a GPA of 2.5 overall or 2.75 in the foundation courses they have completed, will be granted pre-major status. Pre-majors automatically become full majors upon completion of the minimum requirements.

**Full major:** Students must have completed the following requirements:

- Confirmed admission to WWU and have 45 credits or be in the CBE Distinguished Scholars program.
- Be in good academic standing with the University and meet one of the following GPA requirements:
  - Either:** 1) a minimum GPA of 2.75 in the eight Foundation Courses listed below, including grades from transfer courses and Advanced Placement credit **or** 2) a cumulative GPA of at least 2.50 in all college-level course work including transfer work.

**Provisional major:** Major status is granted provisionally to students who are completing their last foundation course(s) and would be eligible for full major status upon successful completion of their current course work.

**How to apply:** For consideration as a pre-major, provisional major or full major, complete the online application form at: <http://cbe.wwu.edu/cbe/students/application.shtml>.

**Advising tips:** 1) Complete MATH 157 and DSCI 205 requirements early; 2) For information regarding the MIS 220 Equivalency Exam see the Department of Decision Sciences website for test-out information: <http://cbe.wwu.edu/dsci/mis-testout.shtml>.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Foundation Courses

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- DSCI 205 - Business Statistics
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- MATH 157 - Calculus With Applications to Business and Economics
- MGMT 271 - Law and the Business Environment



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- MIS 220 - Introduction to Business Computer Systems (or equivalent)

## Core Courses

- DSCI 305 - Applied Business Statistics
- FIN 341 - Principles of Finance
- MGMT 311 - Introduction to Management and Organizational Behavior
- MGMT 382 - Business and Its Environment
- MIS 320 - Principles of Management Information Systems
- MKTG 380 - Principles of Marketing
- OPS 360 - Operations Management
- One course from:
  - MGMT 492 - Entrepreneurial Problems
  - MGMT 495 - Strategic Management

## Management Concentration Courses

- HRM 322 - Human Resource Management
  - MGMT 313 - Teamwork Basics
  - MGMT 414 - Leadership Practicum
  - OPS 461 - Project Management
  - One course from:
    - MGMT 401 - Conflict Management and Negotiations
    - MGMT 413 - Organizational Change Practicum
  - Two courses from:
    - HRM 424 - Training and Development
    - HRM 425 - Negotiations and Labor Relations
    - IBUS 370 - Introduction to International Business
    - MGMT 401 or 413 (if not taken above)
    - MGMT 481 - Managing Cultural Diversity
    - MGMT 483 - Ethics in Business Decisions
    - MGMT 490 - Internship in Business Administration
    - MGMT 491 - Small Business Entrepreneurship
    - MIS 321 - Systems Analysis and Design
- Other courses with permission of advisor.
- Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP) at WWU with a minimum grade of C-. The CF and WP courses must be taken within CBE and can be completed as part of the above required and elective courses, prior to graduation. Consult the Timetable of Classes for the specific course sections that fulfill the CR and WP requirements.
  - Accounting and Business majors must complete a minimum of 90 credits in areas other than accounting and business administration.

## **Business and Sustainability, BA**

Combined major offered by the Department of Management, College of Business and Economics, and the Department of Environmental Studies, Huxley College of the Environment

### **104-106 credits**

### Introduction/What is the Study of Business and Sustainability?

The State of Washington is a leader in responding to the societal imperative regarding environmental issues. This Bachelor of Arts degree in Business and Sustainability is an action component of the state's initiatives. This degree combines three areas of study that give graduates the necessary knowledge, skills, and abilities to operate in a changing economic and social environment.

Graduates from this program will possess:

- A fundamental knowledge of economics, giving them the skills to apply economic analysis to problems in sustainable business faced by modern organizations;
- A fundamental knowledge of environmental science and policy, giving them the ability to understand the social and political climate as well as the scientific issues involved in sustainable business;
- An extensive knowledge of business and management in the context of business sustainability giving them the basic skills needed to succeed in organizations.

### Why Consider a Business and Sustainability Major?

Contact Information	
<b>CBE Admissions &amp; Scholarships</b> Dean's Office Parks Hall 419 360-650-3896 cbe@wwu.edu	<b>Department Chair</b> Mary D. Sass Parks Hall 215 360-650-2648 Mary.Sass@wwu.edu
Sample Careers	

Major/Career Resources  
[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students planning to major in Business and Sustainability should declare their major as early as possible, preferably their first year at Western in either the College of Business and Economics, or Huxley College of the Environment.

#### College of Business and Economics:

Admission to programs in the College of Business and Economics (CBE) is selective and based upon prior academic performance and other evidence of high promise. For admission to CBE as a Business and Sustainability Major with pre-major, provisional major, or full major status, students must have completed the following requirements:

- Confirmed admission to Western Washington University
- Achieved a 2.50 cumulative college GPA (including transfer work)

Completion of the CBE foundation courses is not required to declare this combined major in management. Complete the online application form at <http://cbe.wwu.edu/cbe/students/application.shtml>.

#### Environmental Studies Department:

Students may apply for admission to the Environmental Studies program at any time by going to the central Huxley College office in the Environmental Studies Building 539, and filling out a declaration card. There are several advantages to doing so during the freshman or sophomore year. Environmental Studies students are ensured access to many ENVS preparatory and core classes, are assigned a faculty advisor who can assist in choosing courses and a major concentration, and are included in all Environmental Studies and Huxley communications.

Those pursuing joint programs offered by Environmental Studies with other Western academic units may also seek admission as ENVS students, although the preparatory and major requirements differ from those of the other ENVS majors as outlined in this catalog.

# MANAGEMENT

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

#### Foundation Courses (40 credits)

- ACCT 240 - Financial Accounting
- ACCT 245 - Managerial Accounting
- DSCI 205 - Business Statistics
- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- ENVS 202 - Introduction to Environmental Studies and Sustainability
- MATH 157 - Calculus With Applications to Business and Economics
- MATH 271 - Law and the Business Environment
- PLSC 250 - The American Political System
- One course from:
  - BIOL 101 - Introduction to Biology
  - CHEM 101 - Chemical Concepts

#### Required Courses (57-59 credits)

- ECON 383 - Environmental Economics
- ECON 482 - Advanced Topics in Environmental Economics
- ENVS 304 - Environment and Resource Policy
- ENVS 305 - Environmental History and Ethics
- FIN 341 - Principles of Finance
- MGMT 311 - Introduction to Management and Organizational Behavior
- MIS 220 - Introduction to Business Computer Systems or equivalent \*  
\* students may test out of this course
- MIS 320 - Principles of Management Information Systems
- MKTG 380 - Principles of Marketing
- OPS 360 - Operations Management
- One course from:
  - ENVS 359 - Greening Business Policy and Practice
  - MGMT 359 - Greening Business Policy and Practice
- One course from:
  - ENVS 455 - Environmental Law
  - ENVS 457 - Environmental Dispute Resolution
- One course from:
  - ENVS 466 - Greening Business Applications
  - MGMT 466 - Greening Business Applications
- One course from:
  - ESCI 302 - Environmental Pollution
  - ESCI 310 - Environmental Systems
- One course from:
  - MKTG 384 - Marketing and Sustainability
  - MKTG 474 - Marketing Strategies for Sustainability
- Electives: Other courses under Advisement (minimum of 7 credits). Examples include:

- ACCT 484 - Environmental Accounting/ Sustainability Reporting
  - ECON 343 - Population, Environment, and World Agriculture
  - ECON 384 - Energy Economics
  - ENVS 303 - Human Ecology and Sustainability
  - ENVS 471 - Campus Sustainability Planning Studio
  - ENVS 474 - Planning for Sustainable Communities
  - ENVS 487 - Conservation Psychology
  - MKTG 473 - Innovation
  - MKTG 487 - Nonprofit Marketing
- Take one Communication Focus (CF) course and a minimum of three writing proficiency points in approved upper-division writing proficiency courses (WP-3 points) at WWU with a minimum grade of C-. The CF course must be taken within the College of Business and Economics, while the WP requirement can be met with courses from any of the combined major colleges (College of Business and Economics, and Huxley College of the Environment). These requirements can be completed as part of the above required and elective credits. Consult the Timetable of Classes for the specific course sections that fulfill the CF and WP requirements.

## Minor

### International Business Minor

College of Business and Economics

**28 credits**

#### Introduction/What is the Study of International Business?

This minor is designed for students who want to add an international business dimension to a major in another functional area, either in the College of Business and Economics or in one of the other majors at Western Washington University. The student who completes this minor will have a) a general introduction to the cultural, institutional and regulatory structures necessary to do international business; b) two courses that add more focused international knowledge, and c) a course on the management and strategic issues in doing business internationally. Students from outside the College of Business and Economics will also acquire a basic knowledge of the 'language' of business and economics.

#### Why Consider an International Business Minor?

Contact Information	
<b>CBE Admissions &amp; Scholarships</b> Dean's Office Parks Hall 419 360-650-3896 cbe@wwu.edu	<b>Department Chair</b> Mary D. Sass Parks Hall 215 360-650-2648 Mary.Sass@wwu.edu
Sample Careers	

Major/Career Resources
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>

# MANAGEMENT

## **How to Declare (Admission and Declaration Process):**

Students not already admitted to the College of Business and Economics must have a 2.50 GPA in all WWU courses including the following CBE courses: ECON 206, ACCT 240 and (ECON 207, MGMT 311 or MGMT 271).

Students should check with the Management Department office to identify the proper paperwork to apply for the minor. The completed form needs to be submitted in to the Management Department. The department will notify the student of the admission decision.

## **Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- ACCT 240 - Financial Accounting
- ECON 206 - Introduction to Microeconomics
  - One course from:
- ECON 207 - Introduction to Macroeconomics
- MGMT 271 - Law and the Business Environment
- MGMT 311 - Introduction to Management and Organizational Behavior
- IBUS 370 - Introduction to International Business
- IBUS 470 - International Business Operations

### **Electives**

Choose a total of two courses from the following international courses in the College of Business and Economics.

### **A Functional Area Course in CBE outside your Major/Concentration Area**

CBE students must take one international course in their own functional area (if available), and that course may not be double-counted toward the IBUS minor.

- ACCT 451 - International Accounting
- FIN 442 - Multinational Corporate Finance
- MGMT 481 - Managing Cultural Diversity
- MKTG 486 - International Marketing Management
- OPS 466 - Supply Chain Management

### **An Economics or Social Science Course with International Content**

ECON 388 and ECON 389 must be taken together and counts as one course. Alternative WWU Social Sciences courses with international content may be taken with approval of the advisor.

- ECON 343 - Population, Environment, and World Agriculture
- ECON 360 - Introduction to International Economics
- ECON 365 - The Canadian Economy
- ECON 385 - Comparative Economic Systems
- ECON 388 - Economics of the European Union AND
- ECON 389 - Economies of the Pacific Rim
- ECON 462 - International Trade
- ECON 463 - International Finance

### **An Additional International Business (IBUS) Elective**

- IBUS 473 - International Trade Operations
- IBUS 474 - Topics in International Business

## Human Resource Management Courses

### **HRM 322 - Human Resource Management**

Recruitment, selection, utilization and development of human resources, with emphasis on employee-management relations and relevant behavioral research.

**Prerequisites & Notes:** Majors Only. MGMT 271, MGMT 311.  
Credits: 4

### **HRM 423 - Staffing**

Recruiting and selection as related to organizational objectives. Legal requirements, selection models, validation and topical issues of importance.

**Prerequisites & Notes:** Majors Only. HRM 322.  
Credits: 4

### **HRM 424 - Training and Development**

Training as related to organizational objectives. Emphasis on training models, learning theory, evaluation methodologies, instructional techniques and topics of special interest.

**Prerequisites & Notes:** Majors Only. HRM 322.  
Credits: 4

### **HRM 425 - Negotiations and Labor Relations**

Uses cases, lectures and simulations to develop negotiation skills in a variety of management situations, including union-management relations. Issues include pre-employment discussions, collective bargaining, arbitration, mediation, agency, renegotiating contracts, and multiparty discussions.

**Prerequisites & Notes:** Majors Only. HRM 322.  
Credits: 4

### **HRM 426 - Current Issues in Human Resource Management**

Current problems in human resource policy and practice.

**Prerequisites & Notes:** Majors Only. HRM 322.  
Credits: 4

### **HRM 427 - Compensation Administration**

Examination of theories, models and procedures required to develop compensation and reward systems in organizations. Economic, psychological and social elements of compensation. Determination of compensation structures and differentials, forms of compensation and reward, compensation levels.

**Prerequisites & Notes:** Majors Only. HRM 322.  
Credits: 4

### **HRM 490 - Internship in Human Resource Management**

Practical application of skills and theories learned in the classroom through work or special project experience in private or public organizations. Repeatable up to 12 credits.

**Prerequisites & Notes:** business administration students only.  
Credits: 1-4

## International Business Courses

### **IBUS 370 - Introduction to International Business**

Introduction to the environment and challenges of doing business abroad. Topics include country-market differences, trade and investment patterns, the international financial environment, issues in business-government relations and strategies for international business.

**Prerequisites & Notes:** ECON 206.  
Credits: 4

### **IBUS 470 - International Business Operations**

Strategic and operational issues that firms face when they do business abroad. Themes include the competitiveness challenge, country-market analysis and entry strategies, negotiations and diplomacy, cooperative ventures, design and control of international operations, and various functional area issues.

## MANAGEMENT

**Prerequisites & Notes:** Majors Only. IBUS 370 or another international course in the College of Business and Economics.

Credits: 4

### **IBUS 473 - International Trade Operations**

Operations of firms using exporting as a means to serve foreign markets. Focus on export operations (documentation, transport, support services, financing), practical aspects of contract negotiations, alternative methods of export business arrangements.

**Prerequisites & Notes:** Majors Only. IBUS 370 or MKTG 486.

Credits: 4

### **IBUS 474 - Topics in International Business**

Varying topics in international business. This could include courses on business in specific areas of the world, specific international business topics (e.g. negotiation), or currently important topics in the international business field. May Be Repeated for Credit on a Different Topic (up to 8 credits).

**Prerequisites & Notes:** Majors Only. IBUS 370 or equivalent of permission of instructor.

Credits: 4

### **IBUS 490 - Internship in International Business**

Practical application of international business skills and theories learned in the classroom through work or special projects experience in private or public organizations. Repeatable to 12 credits.

**Prerequisites & Notes:** Majors Only. Business administration students only.

Credits: 1-4

## Management Courses

### **MGMT 201 - Introduction to Business**

A survey of the field. Introduction to the major functional areas comprising business or organizations. Recommended for students not intending to major in the College of Business and Economics.

Credits: 4

GUR Attributes: QSR

### **MGMT 202 - Perspectives on Business**

An introduction to perspectives on the nature of business in society, the development of the firm and how organizations function.

**Prerequisites & Notes:** Enrollment in CBE Distinguished Scholars Program

Credits: 2

### **MGMT 271 - Law and the Business Environment**

Historical development of legal institutions, the judicial process, and impact of the law upon individual and business decision making.

**Prerequisites & Notes:** only one of MGMT 271, PLSC 311, or FAIR 211 may be taken for GUR credit

Credits: 4

GUR Attributes: SSC

### **MGMT 311 - Introduction to Management and Organizational Behavior**

Introduction to organization theory, behavior and interpersonal communication; concepts of power, authority and influence; the role of philosophy and values in organizations.

Credits: 4

### **MGMT 313 - Teamwork Basics**

An introduction to teamwork concepts and skills. Covers structural and process attributes of teams with the objective of enhancing team leader or member effectiveness.

**Prerequisites & Notes:** Majors Only. MGMT 311

Credits: 4

### **MGMT 319 - Business Communications**

Business writing principles applied to various types of communications and reports. Cases used; work must be submitted in acceptable business format.

**Prerequisites & Notes:** ENG 101 or equivalent

Credits: 4

### **MGMT 337 - Management Study Abroad**

Management elective credit for upper-division courses taken at a WWU-approved study abroad program. Students must present sufficient documentation to show the material was successfully completed with a letter grade and the content is appropriate for upper-division elective credit in management. Repeatable up to 12 credits. S/U grading.

**Prerequisites & Notes:** Majors only.

Credits: 4

Grade Mode: S/U grading

### **MGMT 359 - Greening Business Policy and Practice**

This course will provide both a survey and applications of major U.S. and Washington state policies and practices supporting the greening of business. Also offered as ENVS 359.

**Prerequisites & Notes:** Completion of Huxley ENVS Major Phase I or ESCI Major or CBE Major or permission of instructor.

Credits: 4

### **MGMT 365 - Industrial Purchasing**

Business writing principles applied to various types of communications and reports. Cases used; work must be submitted in acceptable business format.

**Prerequisites & Notes:** MGMT 360

Credits: 4

### **MGMT 380 - Business History of the United States**

Business history of the United States. Review and analysis of the organizational methods, performance, climate and entrepreneurship of American business from 1780 to the present.

**Prerequisites & Notes:** ECON 206

Credits: 4

### **MGMT 382 - Business and Its Environment**

A study of the business decision-making process as these decisions interact with the social, technological, political/legal and economic environments. The causes and effects of the regulation of business are developed and explored.

**Prerequisites & Notes:** Majors only. MGMT 271.

Credits: 4

### **MGMT 401 - Conflict Management and Negotiations**

Examination of the theory and practice of interpersonal conflict management and negotiations in organizations. Uses cases and simulations to develop negotiation skills. Topics include conflict resolution, distributive and integrative negotiation techniques and outcomes, mediations, and collaboration.

**Prerequisites & Notes:** Majors Only. MGMT 313

Credits: 4

### **MGMT 413 - Organizational Change Practicum**

Field-based course that covers both the theories and tools needed to implement change in organizations. Topics include individual resistance to change, ethics in change management and consulting, issues in organizational change, organizational development, and change management.

**Prerequisites & Notes:** Majors Only. MGMT 313.

Credits: 4

### **MGMT 414 - Leadership Practicum**

A problem-based leadership course with emphasis on leading teams, leading organizational change, and self-leadership.

**Prerequisites & Notes:** Majors Only. OPS 461;

MGMT 313.

Credits: 4

### **MGMT 417 - Social Entrepreneurship**

This course is about using entrepreneurial skills to craft innovative responses to social problems. Entrepreneurs are particularly good at recognizing opportunities, exploring innovative approaches, mobilizing resources, managing risks, and building viable enterprises. These skills are just as valuable in the social sector as they are in business. Social entrepreneurship applies to both profit and non-profit firms who have programs designed to create social value.

**Prerequisites & Notes:** MGMT 271

Credits: 4



## MANAGEMENT

### **MGMT 466 - Greening Business Applications**

This course is an experiential capstone combining faculty and student teams from the College of Business and Economics and Huxley College of the Environment. Student groups prepare a Green Business Assessment for a community or campus organization and compile, distribute, and present a final report to the campus and the client organizations. Also offered as ENVS 466.

**Prerequisites & Notes:** CBE Major or Huxley Major or permission of instructor; priority given to majors in Business and Sustainability. Senior status.  
Credits: 5

### **MGMT 481 - Managing Cultural Diversity**

Management of persons from diverse countries and cultures. Culture-specific issues and issues of diversity in the workplace. Problems, cases and research assignments associated with managing in a multicultural and international work environment.

**Prerequisites & Notes:** Majors Only. MGMT 311  
Credits: 4

### **MGMT 483 - Ethics in Business Decisions**

An investigation of ethical theories and their application to issues faced by managers. An analysis of the morality of capitalism as a social system, and the ethical issues involved in international business operations.

**Prerequisites & Notes:** Majors Only. MGMT 382  
Credits: 4

### **MGMT 490 - Internship in Business Administration**

Practical application of skills and theories learned in the classroom through work or special project experience in private or public organizations. Repeatable to 12 credits. Also offered as IBUS 490.

**Prerequisites & Notes:** Majors Only.  
Credits: 4

### **MGMT 491 - Small Business Entrepreneurship**

Planning, marketing, financial, legal, control and human elements associated with the start up, acquisition and operation of a small business from

the entrepreneurial point of view.

**Prerequisites & Notes:** Majors Only. MGMT 311, FIN 341, MKTG 380, OPS 360, and MIS 320 or ACCT 321.  
Credits: 4

### **MGMT 492 - Entrepreneurial Problems**

Field consulting work and study under faculty supervision with small business entrepreneurs in the local business community, directed towards solving varied real-life small business problems.

**Prerequisites & Notes:** Majors Only. MGMT 491  
Credits: 4

### **MGMT 495 - Strategic Management**

Case study of policy making and administration from a general management point of view. Emphasis on problem analysis, the decision-making process, administration and control, and development of policies and objectives.

**Prerequisites & Notes:** Majors Only. MGMT 311, FIN 341, MKTG 380, OPS 360, and MIS 320 or ACCT 321.  
Credits: 4

# Master of Business Administration

## Program Description

The Master of Business Administration (MBA) program is a rigorous, integrated graduate business program designed to prepare students for responsible leadership positions in private, public and not-for-profit organizations, as well as in entrepreneurial ventures. The Western MBA curriculum provides a balance of theory and application essential for managerial excellence. The program is intended for the active manager and technical supervisor as well as those looking for new opportunities at the mid-management level. Regardless of undergraduate degree, candidates will find a challenging program designed to meet their specific background and needs. The program is distinguished by small classes, collegial relationships among faculty and students, and a diverse student body.

The College of Business and Economics is accredited by AACSB International-The Association to Advance Collegiate Schools of Business at both the graduate and undergraduate levels.

## Program Mission

The Western MBA is a high-quality general graduate business program that develops organizational leaders who integrate strong managerial skills with a solid foundation in the core business functions within a global context.

## Program Learning Goals

The typical student graduating from Western Washington University's MBA program shall:

- Validate mastery of discipline-specific business knowledge and analytical skills
- Integrate functional areas of business knowledge across disciplines
- Synthesize functional business knowledge within strategic organizational framework
- Illustrate ability to apply critical thinking and ethical decision making to complex business problems
- Exhibit competence in applying interpersonal and managerial skills within an institutional context
- Demonstrate ability to motivate others to achieve strategic outcomes
- Be conscientious in the application of business knowledge
- Create an orientation of personal responsibility, respect and professionalism
- Transform followers to leaders

## Admission Prerequisites

Knowledge prerequisites: Normally an applicant to the program must have completed a college-level calculus course or otherwise demonstrate knowledge and proficiency in quantitative methods prior to entering the program. It also is expected that entering students will have proficiency in the use of microcomputers and common business software such as spreadsheets. Well-developed communications skills also are important.

## Graduate Faculty

**Deepinder Bajwa** (1999) PhD, management information systems.

**Earl D. Benson** (1980) PhD, finance.

**Brian K. Burton** (1995) PhD, business environment.

**Craig Dunn** (2005) PhD, business environment.

**Brandon Dupont** (2006) PhD, economic history, labor economics.

**David R. Fewings** (1985) PhD, finance.

**Joseph E. Garcia** (1985) PhD, organizational behavior.

**David L. Gilbertson** (1988) PhD, auditing/financial accounting.

**Steven Globerman** (1994) PhD, international business.

**Daniel A. Hagen** (1988) PhD, environmental/international/labor/microeconomics.

# MASTER OF BUSINESS ADMINISTRATION

**Pamela L. LaBorde** (1990) PhD, finance.  
**K. Peter Harder** (1970) PhD, economic history.  
**Peter Haug** (1986) PhD, operations management.  
**Steven E. Henson** (1985) PhD, microeconomics, applied econometrics.  
**L. Hart Hodges** (2005) PhD, natural resources, applied business.  
**Stella Hua** (2002) PhD, operations management and quantitative methods.  
**Marguerite R. Hutton** (1989) PhD, taxation.  
**Jason M. Kanov** (2007) PhD, organizational behavior  
**Ilhyung Kim** (2004) PhD, operations and technology management.  
**Jongwook Kim** (2003) PhD, business policy and strategic management.  
**Shawn Knabb** (2005) PhD, macroeconomics, public finance, growth.  
**John Krieg** (2000) PhD, econometrics, money and banking, macroeconomics.  
**Floyd L. Lewis** (1983) PhD, management information systems.  
**Edwin A. Love** (2008) PhD, marketing  
**Marko Madunic** (2009) PhD, business policy and strategic management & international business  
**Sandra Mottner** (2001) PhD, marketing.  
**Dennis R. Murphy** (1979) PhD, managerial decisions/international finance.  
**David M. Nelson** (1977) PhD, macroeconomics/money markets.  
**Thomas J. Olney** (1986) PhD, marketing.  
**Mary Ann Reynolds** (1996) PhD, financial accounting.  
**Thomas Roehl** (1999) PhD, international business.  
**Matthew Roelofs** (1997) PhD, managerial economics.  
**Steven C. Ross** (1989) PhD, management information systems.  
**David S. Rystrom** (1983) PhD, finance.  
**George D. Sanders** (1995) PhD, financial/governmental accounting.  
**J. Christopher Sandvig** (2001) PhD, management information systems.  
**Mary Sass** (2005) PhD, organizational behavior and development.  
**Stephen V. Senge** (1985) CMA, DBA, managerial accounting  
**Khim L. Sim** (2008) PhD, managerial accounting  
**William R. Singleton** (1976) PhD, taxation.  
**Mark Springer** (1987) PhD, operations management.  
**Paul Storer** (1996) PhD, economics.  
**Ozan Sula** (2006) PhD, international finance, macroeconomics, money and banking.  
**Audrey Taylor** (2001) PhD, managerial accounting.  
**Craig Tyran** (2001) PhD, management and information systems.  
**Kristi M. Tyran** (2001) PhD, organizational behavior.  
**Daniel M. Warner** (1978) JD, business law.  
**Wendy J. Bryce Wilhelm** (1986) PhD, marketing.  
**Nicholas Wonder** (2002) PhD, corporate finance.  
**Zhe George Zhang** (2000) PhD, statistics.

## Master of Business Administration

### Business Administration, Accelerated, MBA

#### Program Application / Admission Requirements

The Western Washington University MBA program invites applications from students with any undergraduate major. Current MBA admissions criteria include a minimum 3.00 upper-division undergraduate GPA, an acceptable GMAT or GRE score, a résumé, and a statement of purpose. International students must also

submit a TOEFL score of at least 227 for the computer-based test, 567 for the paper-based test, or 86 for the Internet-based test.

To apply for admission, send a completed official application form to the Graduate School along with an application fee, official transcripts, GMAT or GRE scores, personal statement of background and intentions, and a résumé showing work experience. (Further information, including deadlines, is provided in the Graduate School section of this catalog.)

**Admit Quarters:** Summer (accelerated track).

**Deadline:** Application deadline is May 1. International students are encouraged to submit applications by February 1 to ensure adequate time for admission decision and application for student visa.

**Specific Test Requirements:** Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE) scores are required. Test scores may be waived if an applicant has an advanced degree - MA, MS, or PhD. Test of English as a Foreign Language (TOEFL) must be submitted by applicants who are not native speakers of English.

**Supporting Materials:**

- Application with \$60 fee (subject to change)
- One set of official transcripts from all previous college-level work (no more than two years old)
- Personal statement of background and intention
- Résumé showing work experience

## The Curriculum

The Accelerated Full-Time MBA Program serves outstanding students who have recently completed an undergraduate degree in a business-related field or who have extensive managerial experience.

### Program Requirements (52 credits)

- MBA 516 - Managerial Decisions
- MBA 524 - Management and Leadership Skills
- MBA 541 - Managerial Finance
- MBA 573 - Project Management
- MBA 591 - Strategic Management
- MBA 598 - Business Consulting Capstone 1
- MBA 599 - Business Consulting Capstone 2
- Electives (12 credits)

The MBA 598/MBA 599 sequence serves as a comprehensive exam. Information contained in the MBA program section of the catalog is subject to change; please contact the MBA program for the most current information.

### Other Requirements

Students must demonstrate competence through substantive experience in an organizational setting. This must be done through formal evaluation by a supervisor, and can be accomplished either before or during the student's time in the program. More details on this requirement can be obtained from the MBA program office.

## Academic Probation

The Graduate School requires that all graduate students maintain a 3.00 GPA (on a 4.0 scale) to be a candidate for a degree and to remain in good academic standing. Students in the MBA program falling below this standard will automatically be placed on academic probation and will be allowed a maximum of 16 credits of course work to raise their cumulative GPA to 3.00 or better. If, after completing 16 additional credits, a student has failed to achieve good standing, that student may only be allowed to continue MBA studies with special permission.

# MASTER OF BUSINESS ADMINISTRATION

In no case will a student be recommended for a master's degree without having achieved a 3.00 GPA or better.

## Student Advising

For answers to routine questions concerning preparation and progress through the program, students should consult this catalog and the program Website. Nonroutine questions should be directed to the program director, assistant director or program manager.

## Business Administration, Evening Part-Time, MBA

### Program Application / Admission Requirements

The Western Washington University MBA program invites applications from students with any undergraduate major. Current MBA admissions criteria include a minimum 3.00 upper-division undergraduate GPA, an acceptable GMAT or GRE score, a résumé, and a statement of purpose. International students must also submit a TOEFL score of at least 227 for the computer-based test, 567 for the paper-based test, or 86 for the Internet-based test.

To apply for admission, submit a completed official application form to the Graduate School along with an application fee, official transcripts, GMAT or GRE scores, personal statement of background and intentions, and a résumé showing work experience. (Further information, including deadlines, is provided in the Graduate School section of this catalog.)

**Admit Quarters:** Summer, even-numbered years (part-time track).

**Deadline:** Application deadline is May 1. International students are encouraged to submit applications by February 1 to ensure adequate time for admission decision and application for student visa.

**Specific Test Requirements:** Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE) scores are required. Test scores may be waived if an applicant has an advanced degree - MA, MS, or PhD. Test of English as a Foreign Language (TOEFL) must be submitted by applicants who are not native speakers of English.

### Supporting Materials:

- Application with \$60 fee (subject to change)
- One set of official transcripts from all previous college-level work (no more than two years old)
- Personal statement of background and intention
- Résumé showing work experience

## The Curriculum

The Evening Part-Time MBA Program serves students who have significant managerial or professional experience

### Program Requirements (52-64 credits)

- MBA 502 - Microeconomics \*
- MBA 503 - Macroeconomics \*
- MBA 504 - Statistical Methods \*
- MBA 505 - Business Finance \*
- MBA 506 - Corporate Information Systems Management \*
- MBA 507 - Managing Organizations and People \*
- MBA 508 - Operations Management \*
- MBA 509 - Marketing Management \*
- MBA 510 - Financial Accounting and Reporting Concepts \*
- MBA 511 - Managerial Accounting \*

- MBA 524 - Management and Leadership Skills
- MBA 532 - Marketing Strategy
- MBA 541 - Managerial Finance
- MBA 591 - Strategic Management
- MBA 594 - Introduction to Professional Management
- MBA 595 - Competing in a Global Environment

\*Up to three core courses may be waived under advisement.

A required comprehensive exam is given as part of MBA 591.

Students are required to maintain a learning portfolio throughout their academic tenure. This portfolio is to document the achievement of MBA Program Goals and learning objectives.

Information contained in the MBA program section of the catalog is subject to change; please contact the MBA program for the most current information.

## Other Requirements

Students must demonstrate competence through substantive experience in an organizational setting. This must be done through formal evaluation by a supervisor, and can be accomplished either before or during the student's time in the program. More details on this requirement can be obtained from the MBA program office.

## Academic Probation

The Graduate School requires that all graduate students maintain a 3.00 GPA (on a 4.0 scale) to be a candidate for a degree and to remain in good academic standing. Students in the MBA program falling below this standard will automatically be placed on academic probation and will be allowed a maximum of 16 credits of course work to raise their cumulative GPA to 3.00 or better. If, after completing 16 additional credits, a student has failed to achieve good standing, that student may only be allowed to continue MBA studies with special permission.

In no case will a student be recommended for a master's degree without having achieved a 3.00 GPA or better.

## Student Advising

For answers to routine questions concerning preparation and progress through the program, students should consult this catalog and the program Website. Nonroutine questions should be directed to the program director, assistant director or program manager.

## Business Administration, Managers and Professionals, MBA

### Program Application / Admission Requirements

The Western Washington University MBA program invites applications from students with any undergraduate major. Current MBA admissions criteria include a minimum 3.00 upper-division undergraduate GPA, an acceptable GMAT or GRE score, a résumé, and a statement of purpose. International students must also submit a TOEFL score of at least 227 for the computer-based test, 567 for the paper-based test, or 86 for the Internet-based test.

To apply for admission, submit a completed official application form to the Graduate School along with an application fee, official transcripts, GMAT or GRE scores, personal statement of background and intentions, and a résumé showing work experience. (Further information, including deadlines, is provided in the Graduate School section of this catalog.)

**Admit Quarters:** Winter, even-numbered years (part-time track).

**Deadline:** Application deadline is November 15. International students are encouraged to submit applications by August 15 to ensure adequate time for admission decision and application for student visa.

# MASTER OF BUSINESS ADMINISTRATION

**Specific Test Requirements:** Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE) scores are required. Test scores may be waived if an applicant has an advanced degree - MA, MS, or PhD.. Test of English as a Foreign Language (TOEFL) must be submitted by applicants who are not native speakers of English.

**Supporting Materials:**

- Application with \$100 fee (subject to change)
- One set of official transcripts from all previous college-level work (no more than two years old)
- Personal statement of background and intention
- Résumé showing work experience

Program Requirements (52-64 credits)

- MBA 502 - Microeconomics \*
- MBA 503 - Macroeconomics \*
- MBA 504 - Statistical Methods \*
- MBA 505 - Business Finance \*
- MBA 506 - Corporate Information Systems Management \*
- MBA 507 - Managing Organizations and People \*
- MBA 508 - Operations Management \*
- MBA 509 - Marketing Management \*
- MBA 510 - Financial Accounting and Reporting Concepts \*
- MBA 511 - Managerial Accounting \*
- MBA 524 - Management and Leadership Skills
- MBA 532 - Marketing Strategy
- MBA 541 - Managerial Finance
- MBA 591 - Strategic Management
- MBA 594 - Introduction to Professional Management
- MBA 595 - Competing in a Global Environment

\*Up to three core courses may be waived under advisement.

A required comprehensive exam is given as part of MBA 591.

Students are required to maintain a learning portfolio throughout their academic tenure. This portfolio is to document the achievement of MBA Program Goals and learning objectives.

Information contained in the MBA program section of the catalog is subject to change; please contact the MBA program for the most current information.

**Other Requirements**

Students must demonstrate competence through substantive experience in an organizational setting. This must be done through formal evaluation by a supervisor, and can be accomplished either before or during the student's time in the program. More details on this requirement can be obtained from the MBA program office.

**Academic Probation**

The Graduate School requires that all graduate students maintain a 3.00 GPA (on a 4.0 scale) to be a candidate for a degree and to remain in good academic standing. Students in the MBA program falling below this standard will automatically be placed on academic probation and will be allowed a maximum of 16 credits of course work to raise their cumulative GPA to 3.00 or better. If, after completing 16 additional credits, a student has failed to achieve good standing, that student may only be allowed to continue MBA studies with special permission.

In no case will a student be recommended for a master's degree without having achieved a 3.00 GPA or better.

## Student Advising

For answers to routine questions concerning preparation and progress through the program, students should consult this catalog and the program Website. Nonroutine questions should be directed to the program director, assistant director or program manager.

## Business Administration, Regular Full-Time, MBA

### Program Application / Admission Requirements

The Western Washington University MBA program invites applications from students with any undergraduate major. Current MBA admissions criteria include a minimum 3.00 upper-division undergraduate GPA, an acceptable GMAT or GRE score, a résumé, and a statement of purpose. International students must also submit a TOEFL score of at least 227 for the computer-based test, 567 for the paper-based test, or 86 for the Internet-based test.

To apply for admission, send a completed official application form to the Graduate School along with an application fee, official transcripts, GMAT or GRE scores, personal statement of background and intentions, and a résumé showing work experience. (Further information, including deadlines, is provided in the Graduate School section of this catalog.)

**Admit Quarters:** Fall (regular track).

**Deadline:** Application deadline is May 1. International students are encouraged to submit applications by February 1 to ensure adequate time for admission decision and application for student visa.

**Specific Test Requirements:** Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE) scores are required. Test scores may be waived if an applicant has an advanced degree - MA, MS, or PhD. Test of English as a Foreign Language (TOEFL) must be submitted by applicants who are not native speakers of English.

### Supporting Materials:

- Application with \$60 fee (subject to change)
- One set of official transcripts from all previous college-level work (no more than two years old)
- Personal statement of background and intention
- Résumé showing work experience

## The Curriculum

*The Traditional Full-Time MBA Program* serves students without recent substantial course work in business and economics

### Program Requirements (84 credits)

- MBA 514 - Managerial Foundations
- MBA 515 - Internal and External Forces Impacting the Manager
- MBA 516 - Managerial Decisions
- MBA 524 - Management and Leadership Skills
- MBA 541 - Managerial Finance
- MBA 573 - Project Management
- MBA 591 - Strategic Management
- MBA 598 - Business Consulting Capstone 1
- MBA 599 - Business Consulting Capstone 2
- Electives (12 credits)

The MBA 598/MBA 599 sequence serves as a comprehensive exam. Information contained in the MBA program section of the catalog is subject to change; please contact the MBA program for the most current information.



# MASTER OF BUSINESS ADMINISTRATION

## Other Requirements

Students must demonstrate competence through substantive experience in an organizational setting. This must be done through formal evaluation by a supervisor, and can be accomplished either before or during the student's time in the program. More details on this requirement can be obtained from the MBA program office.

## Academic Probation

The Graduate School requires that all graduate students maintain a 3.00 GPA (on a 4.0 scale) to be a candidate for a degree and to remain in good academic standing. Students in the MBA program falling below this standard will automatically be placed on academic probation and will be allowed a maximum of 16 credits of course work to raise their cumulative GPA to 3.00 or better. If, after completing 16 additional credits, a student has failed to achieve good standing, that student may only be allowed to continue MBA studies with special permission.

In no case will a student be recommended for a master's degree without having achieved a 3.00 GPA or better.

## Student Advising

For answers to routine questions concerning preparation and progress through the program, students should consult this catalog and the program Website. Nonroutine questions should be directed to the program director, assistant director or program manager.

## Master of Business Administration Courses

### MBA 502 - Microeconomics

An analytic approach to the theory of the consumer, the firm and markets. Emphasis is placed on the development of managerial tools for understanding supply and demand concepts and the determination of prices in various market settings for both outputs and inputs. The problems of market efficiency, externalities and public goods are also considered from an analytical and policy perspective.

**Prerequisites & Notes:** Admission to the MBA program.  
Credits: 4

### MBA 503 - Macroeconomics

The study of the national economy and the interpretation of national economic performance. Material includes the causes and policy remedies for business cycles, unemployment, inflation and the twin deficits (government and foreign trade). Topics such as Keynesian and classical theories, monetary and fiscal policy, and international trade are studied in an analytic perspective with emphasis on the behavior of business cycles and the issues facing the national economy in an international setting.

**Prerequisites & Notes:** Admission to the MBA program.  
Credits: 4

### MBA 504 - Statistical Methods

Provides an understanding of some of the tools that enable a manager to analyze information, including data analysis, probability distributions, statistical inference and hypothesis testing, and multivariate regression analysis.

**Prerequisites & Notes:** Admission to the MBA program.  
Credits: 4

### MBA 505 - Business Finance

Objectives, tools and techniques of finance from the viewpoint of the financial manager of a manufacturing firm. Focus is on corporate financial decisions encompassing investment, financing, dividends and working capital management, including an introduction to financial instruments and markets.

**Prerequisites & Notes:** Admission to MBA program; MBA 510

Credits: 4

**MBA 506 - Corporate Information Systems Management**

Case study of the current and potential applications of information technology to enhance the competitive posture of the corporation. Uses of information technology throughout the organization; management and control of the information technology function.

**Prerequisites & Notes:** Admission to the MBA program.

Credits: 4

**MBA 507 - Managing Organizations and People**

The purpose of this course is to help students understand the complexities of organizations. It provides exposure to theories of organization, important organizational issues and processes, and a variety of strategies and tactics useful to successfully manage organizations and people.

**Prerequisites & Notes:** Admission to MBA program

Credits: 4

**MBA 508 - Operations Management**

Surveys the fundamentals of operations management and further develops the student's competence through case analyses. Dual emphasis on concepts and applications prepares students for all aspects of managing an operation. Detailed coverage of operations design, planning and control.

**Prerequisites & Notes:** Admission to the MBA program.

Credits: 4

**MBA 509 - Marketing Management**

Staffing, direction and coordination of organizational marketing activities. Development of new products and integration with current activities to meet evolving market needs. Includes sales and advertising in both national and international markets.

**Prerequisites & Notes:** Admission to the MBA program.

Credits: 4

**MBA 510 - Financial Accounting and Reporting Concepts**

Introduction to financial statements and the concepts, principles and theories of asset valuation and income determination underlying their preparation. Analysis and interpretation of financial statements in the perspective of the management decision-making process.

**Prerequisites & Notes:** Admission to MBA program

Credits: 4

**MBA 511 - Managerial Accounting**

Conceptual approach to managerial accounting's role in an organization. Emphasis on the use of accounting information for management decision making. Topics include accounting for planning and control purposes, behavioral implications associated with accounting informations, budgeting and various quantitative techniques available.

**Prerequisites & Notes:** Admission to the MBA program.

Credits: 4

**MBA 514 - Managerial Foundations**

Introduction to professional management and foundation coverage of managerial skills, microeconomics, global competition, financial reporting, and business statistics.

**Prerequisites & Notes:** Admission to MBA Program

Credits: 16

**MBA 515 - Internal and External Forces Impacting the Manager**

Examination of the range of internal and external forces that impact managerial decisions. Topics include global competition, the national and international economy, corporate information systems, foundation concepts in marketing, operations management, finance, people and organizations.

**Prerequisites & Notes:** MBA 514

Credits: 16

# MASTER OF BUSINESS ADMINISTRATION

## **MBA 516 - Managerial Decisions**

Links managerial decisions with specific functional areas of study such as marketing, operations, accounting, finance, and organizational behavior. The focus of these modules is cross-functional decision making in the context of global competition.

**Prerequisites & Notes:** MBA 515 or admission to the accelerated full-time MBA program.  
Credits: 16

## **MBA 520 - Seminar in Corporate Governance**

This course outlines the particular issues and mechanisms of contemporary corporate governance - the system by which companies are directed and controlled. The topic of corporate governance is elaborated from the institutional as well as organizational and managerial points of view, against the backdrop of an understanding of how corporate governance has evolved over time.

**Prerequisites & Notes:** MBA 516 or MBA 594, or permission of instructor.  
Credits: 4

## **MBA 523 - Negotiations and Labor Relations**

Analysis, explanation, and evaluation of negotiation in organizations. Application of negotiations to labor relations in unionized and non-unionized workplaces. Issues include pre-employment discussions, collective bargaining, arbitration, mediation, agency, renegotiating contracts, and multiparty discussions.

**Prerequisites & Notes:** MBA 516  
Credits: 4

## **MBA 524 - Management and Leadership Skills**

Interpersonal skill building in critical management areas including stress management, delegation, communication, power and influence, meetings and conflict management.

**Prerequisites & Notes:** Admission to the MBA program.  
Credits: 4

## **MBA 525 - Seminar in Management**

Intensive examination of selected topics in management. Repeatable with different topics and

course content.

**Prerequisites & Notes:** MBA 516  
Credits: 4

## **MBA 528 - Diversity in Organizations**

An examination of how diversity in organizations places increasingly complex demands and creates new opportunities for organizations in managing human capital.

**Prerequisites & Notes:** MBA 516  
Credits: 4

## **MBA 529 - Influence, Power and Politics in Organizations**

The analysis, explanation and evaluation of power and politics in organizations. Introduces frameworks for assessing the sources of power in organizations, the conditions that lead to its attainment, and its effective use from both a practical and an ethical perspective.

**Prerequisites & Notes:** MBA 516  
Credits: 4

## **MBA 532 - Marketing Strategy**

Integration of marketing principles with overall objectives of the organization. Concepts and analytical techniques facilitating marketing analysis and the development of strategic plans. Strategy formulation in product planning and development, distribution and promotion, marketing research, and consumer behavior.

**Prerequisites & Notes:** MBA 509 or MBA 516  
Credits: 4

## **MBA 534 - Seminar in Marketing**

Focuses on selected traditional and contemporary topics in marketing theory, planning, strategy, management and practice. Repeatable with different topics and course content.

**Prerequisites & Notes:** MBA 516  
Credits: 4

## **MBA 535 - Buyer and Consumer Behavior**

An overview of the theories and research that underlie the analysis of buyer and consumer behavior central to the formulation of marketing

tactics and strategic plans.

**Prerequisites & Notes:** MBA 516

Credits: 4

**MBA 539 - Seminar in International Business**

Intensive examination of selected topics in international business. Repeatable with different topics and course content.

**Prerequisites & Notes:** MBA 516

Credits: 4

**MBA 541 - Managerial Finance**

Theory and policy implications of financial decision making. Emphasis on valuation, long-term financing and investment/merger decisions.

**Prerequisites & Notes:** MBA 505, MBA 511; or

MBA 516

Credits: 4

**MBA 542 - Equity Markets and Portfolio Analysis**

An examination of investment risk and return, the operation of equity securities markets, equity valuation models, modern portfolio theory and portfolio management. Also includes capital market efficiency, stock options and mutual funds.

**Prerequisites & Notes:** MBA 516

Credits: 4

**MBA 543 - Financial Markets, Derivative Instruments and Risk Management**

A mix of seminars and case discussions are used to study the application of recent innovations in financial management. Includes financial futures and options as well as interest rate caps, floors, collars and swaps. Foreign currency risk exposure and management are studied in the context of international financial management. Other topics include pension fund design and management, asset securitization and financial distress.

**Prerequisites & Notes:** MBA 516

Credits: 4

**MBA 544 - Seminar in Finance**

Intensive examination of selected topics in finance. Repeatable with different topics and course

content.

**Prerequisites & Notes:** MBA 516

Credits: 4

**MBA 551 - Managerial Economics**

Economic analysis provides the framework to consider the problems of resource allocations that confront managers in business, government and nonprofit environments. Topics include consumer choice and demand for products, production and cost functions, alternative market structures and the profit criteria for long-run planning and investment decisions.

**Prerequisites & Notes:** MBA 502, MBA 503, MBA 504; or MBA 516

Credits: 4

**MBA 555 - Seminar in Economics**

Intensive examination of selected topics in economics. Repeatable with different topics and course content.

**Prerequisites & Notes:** MBA 516.

Credits: 4

**MBA 562 - Taxation**

A continuation of taxation topics, with emphasis on compensation and retirement planning, estate, gift and trust taxation, and international taxation. Advanced research, planning, and tax policy are also a fundamental part of the course.

**Prerequisites & Notes:** MBA 516

Credits: 4

**MBA 565 - Seminar in Accounting**

Intensive examination of selected topics in accounting. Repeatable with different topics and course content.

**Prerequisites & Notes:** MBA 516

Credits: 4

**MBA 566 - Managerial Accounting and Control**

Seminar/case study course. Focus on managerial accounting topics such as responsibility centers and transfer pricing; budgeting; and analysis of performance. Examines managerial accounting in international, service and not-for-profit entities.

# MASTER OF BUSINESS ADMINISTRATION

**Prerequisites & Notes:** MBA 516

Credits: 4

## **MBA 567 - Financial Statement Presentation and Analysis**

Study of reporting issues from a management perspective. Introduction to the tools and techniques of financial statement analysis. Use of financial statements by external and internal decision makers. Emphasis on the development of communication and computer skills.

**Prerequisites & Notes:** MBA 516

Credits: 4

## **MBA 571 - Database Systems Design and Development**

Design, development, implementation, and administration of database management systems.

**Prerequisites & Notes:** MBA 516 or MBA 506.

Credits: 4

## **MBA 572 - Business Intelligence**

Business intelligence (BI) is a broad category of applications and technologies for gathering, sorting, analyzing, and providing access to data to help enterprise users make better business decisions. BI applications generally include: decision support systems, business analytics, performance management (key business indicators, scorecards, and dashboards), data warehouses, and data mining. The course will include both conceptual and skill components, including projects using appropriate software platforms.

**Prerequisites & Notes:** MBA 516

Credits: 4

## **MBA 573 - Project Management**

Explores the fundamental concepts and principles for understanding the processes found in project life cycle stages, such as starting and planning a project, running a project and delivering a project. Applies specific processes, tools and techniques to manage complexity and performance of projects in organizations.

**Prerequisites & Notes:** MBA 516

Credits: 4

## **MBA 574 - Enterprise Resource Planning**

The course introduces students to the integrated business planning and execution systems currently in use by most large and medium-sized organizations. Although the course is taught primarily from the vantage point of the supply chain management function, the cross-functional nature of the topic requires discussion of the marketing, accounting, and human resources components of ERP as well. Students will also gain experience with SAP R/3 and a small-market ERP package.

**Prerequisites & Notes:** MBA 516

Credits: 4

## **MBA 575 - Seminar in Decision Sciences**

Intensive examination of selected topics in decision sciences. Repeatable with different topics and course content.

**Prerequisites & Notes:** MBA 516

Credits: 4

## **MBA 585 - Seminar in Environmental Management**

This course stresses the appropriateness of assessing the impact(s) of corporate action on the natural environment. Primary consideration will be given to the organizational implications of shifting from the traditional input-process-output ('cradle-to-grave') organization model to an input-process-output-input ('cradle-to-cradle') mindset. Strategic business opportunities associated with an evolving consumer environmental consciousness will be explored.

**Prerequisites & Notes:** Admitted Graduate Student within College of Business and Economics.  
Credits: 4

## **MBA 591 - Strategic Management**

Study of administration and policy making from a top-management viewpoint. Integrates the marketing, financial, production and functional fields of management within a strategic management framework. Case study and simulation techniques used.

**Prerequisites & Notes:** MBA 516; or MBA 595 or concurrent.  
Credits: 4

**MBA 594 - Introduction to Professional Management**

Explores the responsibilities and tasks of management, the characteristics of successful managers, various contexts of management, elements of strategic decision making at various levels of the organization, and an introduction to global business issues.

**Prerequisites & Notes:** Admission to the MBA program.  
Credits: 4

**MBA 595 - Competing in a Global Environment**

Explores the effect of various aspects of globalization on markets, managers, and business strategy, with emphasis on both corporate and functional-level issues.

**Prerequisites & Notes:** Admission to the MBA program.  
Credits: 4

**MBA 598 - Business Consulting Capstone 1**

This first in a sequence of two four-credit capstone courses engages students in working on real business problems with companies of their choice in a 3-4 student team. MBA students work together as a consulting team with a client and advisor to develop solutions that will be put to use by the client. Student teams develop integrative analyses and recommendations, culminating with delivery of a final report and presentation to the client senior management.

**Prerequisites & Notes:** MBA 524 and MBA 591  
Credits: 4

**MBA 599 - Business Consulting Capstone 2**

This second in a sequence of two four-credit capstone courses engages students in working on real business problems with companies of their choice in a 3-4 student team. MBA students work together as a consulting team with a client and advisor to develop solutions that will be put to use by the client. Student teams develop integrative analyses and recommendations, culminating with delivery of a final report and presentation to the client senior management.

**Prerequisites & Notes:** MBA 598  
Credits: 4

# College of Fine and Performing Arts

## Introduction

*Dr. Kit Spicer, Interim Dean*

The College of Fine and Performing Arts, consisting of the departments of art, design, music, and theatre and dance, provides an educational environment for enhancing the creation, development, performance and teaching of the fine and performing arts. Through its facilities and programs, the College has a strong presence on campus. The University's Concert Hall, the Mainstage Theatre, and more intimate performance venues are housed in the College, as well as classrooms, art studios, and the Western Gallery. The College also is responsible for public art throughout the campus in the form of the internationally recognized Outdoor Sculpture Collection.

The goal of CFPA is to nurture a comprehensive understanding of the languages of movement art, visual art, theatre art, and music in order to create thinking artists and artistic thinkers who will shape culture in the 21st century.

To fulfill this mission, the College of Fine and Performing Arts maintains a viable connection with the liberal arts tradition of the University; equips students with the creative and intellectual tools necessary for success in the arts; enables students to value, understand, and challenge traditional concepts; maintains an environment that supports diversity, reflection, and dedication to creative pursuits; promotes critical thinking, innovative ideas and active arts leadership; provides world class and multicultural experiences in the arts for both students and members of the community; and prepares students for a dynamic, lifelong relationship with the arts.

### *Academic Programs Leading to Undergraduate and Graduate Degrees*

Art	BA, BAE, BFA
Design	BA, BFA
Music	BA, B/Mus, M/Mus
Theatre and Dance	BA, BFA

### *Majors/Minors*

In addition to the General University Requirements and other common degree requirements, a candidate for a bachelor's degree must complete a major from one of the departments within CFPA. Minors are also offered in art, dance, music, and theatre arts.

### *Student/Faculty-Designed Major*

The student/faculty-designed major is a major for a bachelor's degree granted by CFPA. Each major is approved by the Curriculum Committee of CFPA. Approval should come after 45 — and before 90 — credits are completed.

Policies, procedures and contract forms will be issued to applicants by the dean's office.

## College Admission and Advisement

### *Admission*

A student is admitted to CFPA when he or she has been admitted to Western Washington University and has officially declared and been accepted as a major, and/or who has passed portfolio review or the audition required in the various discipline area of the College. Advisement is carried on through the individual departments.

*Requirements for Bachelor's Degree*

Besides the general requirements for graduation from the University, explained elsewhere in this catalog, CFPA has the following specific requirements:

The Bachelor of Music degree may require more than the usual 180 credit hours.

The Bachelor of Fine Arts degree is the professional undergraduate degree requiring study beyond the normal four years.

**Department Chairs**

Gaye Green

Elsi Vassdal-Ellis

Christopher Bianco

Beth Leonard

Art

Design

Music

Theatre and Dance

**Other College Information**

*Departments, Courses and Programs*

Courses listed in this *General Catalog* constitute a record of the total academic program of the University. For an exact scheduling of courses at Western, students should consult the annual online *Timetable of Classes*, the *Summer Bulletin* on the Web and the *Extended Education Programs'* bulletins.



# Art

## Introduction

The Department of Art offers programs in three interrelated areas of study: art studio, art education and art history. The programs are designed to enhance artistic and intellectual inquiry across and within disciplines. The programs, classes and workshops combine practice in visual skills with rigorous critical analyses, providing an environment that fosters lively dialog and energetic engagement. With innovative and well-established approaches to teaching, artists, art historians and art educators teach a variety of courses that include art education, art history, art theory and criticism, ceramics, drawing/painting, fibers/fabrics new media, photography, printmaking and sculpture. The faculty is dedicated to the preparation and sponsorship of students in their post-graduate careers as professional artists, curators, and art historians and educators. The Department of Art offers Bachelor of Arts degrees in art studio, and art history. A Bachelor of Fine Arts degree in art is available in art studio. A Bachelor of Arts in Education degree is available through Woodring College of Education.

## Faculty

**GAYE LEIGH GREEN** (1996) Chair and Professor. BA, California State University; MA, Stanford University; PhD, Pennsylvania State University.

**GARTH AMUNDSON** (2000) Professor. BA, Central Washington University; MFA, Syracuse University.

**SHARRON ANTHOLT** (1996) Professor. BFA, California State University; MFA, San Francisco Art Institute.

**CYNTHIA CAMLIN** (2008) Associate Professor, BA, Duke University; MA, The University of Virginia; Post BA, Yale University; MFA, The University of Texas at Austin.

**CAROL JANSON**, (1989). Professor. BA, MA, PhD, University of Minnesota

**CARA JAYE** (1997) Professor. BFA, Parsons School of Design; MFA, University of Colorado.

**KRISTINA LUCE** (2012) Assistant Professor, B.E.D. Department of Architecture, Miami University, Oxford, Ohio; M.Architecture, Miami University, Oxford, Ohio; M.SC in Architecture, The University of Michigan, Ann Arbor, Michigan; PhD in Architectural History and Theory, The University of Michigan, Ann Arbor, Michigan.

**PATRICK F. McCORMICK** (1969) Professor. BFA, BA, University of Washington; MFA, Cranbrook Academy of Art.

**SEBASTIAN MENDES** (2001) Professor. BA, University of California-Santa Cruz; MFA, Stanford University.

**BARBARA MILLER** (2000) Professor. BA, Simon Fraser University; MA, PhD, University of Rochester.

**SEIKO ATSUTA PURDUE** (2002) Associate Professor. BFA, Kyoto Seika University; MA, Montclair University; MFA, the School of the Art Institute of Chicago.

**JULIA SAPIN** (2003) Associate Professor. BA, University of Texas; MA, PhD, University of Washington.

### Gallery Director

**SARAH CLARK-LANGAGER** (1988). BA, Randolph-Macon Woman's College; MA, University of Washington; PhD, Graduate Center, City University of New York.

### Adjunct Faculty

**SARAH CLARK-LANGAGER** (1988). BA, Randolph-Macon Woman's College; MA, University of Washington; PhD, Graduate Center, City University of New York.

## Declaration Process

### *Application Requirements: Studio Art and Art Education*

Most classes in the Studio areas are restricted to majors only. To access classes in these areas, a formal application to the Department of Art is required. For students in art studio, or art education, application for the major is made with a portfolio of work. The portfolio will be reviewed by Department of Art faculty and evaluated on the basis of a demonstrated understanding of the elements of visual art, technical proficiency

and originality. Application deadlines are October 15 and January 31. Portfolios must be received by the deadlines.

For application and information: [www.wvu.edu/art](http://www.wvu.edu/art).

Studio and Art Education majors must complete a plan of study with a department advisor before enrolling in any 200-level course.

### ***Application Requirements: Art History***

To apply to the art history major, students must have taken A/HI 275 and two 200-level art history surveys or pre-approved equivalent courses. Students must have a B average or higher in these classes to be considered for the art history program. Application deadlines for the art history major are October 15 and January 31 and completed forms must be received in the Department of Art by those dates.

For application and information: [www.wvu.edu/art](http://www.wvu.edu/art).

## **Other Departmental Information**

### ***Scholarships***

The Department of Art offers a limited number of scholarships to recognize individual talents, promise, and meritorious achievement. The J. Ruth Kelsey Scholarship and the McIntyre Gorrell Scholarship are among other scholarships offered in the Department of Art. Please consult the scholarship brochure available through Student Financial Resources for information on other scholarships.

### ***100-level courses***

One hundred-level courses provide an introduction to contemporary issues and practices in art.

- ART 109: Required for Art Education, Art Studio
- ART 110: Required for Art Education, Art Studio
- ART 120: Required for Art Education, Art Studio
- Art History: 5 credits of 100-level courses

### ***Western Gallery and Outdoor Sculpture Collection***

The internationally known Outdoor Sculpture Collection includes works by international, national and regional artists, such as Magdalena Abakanowicz, Alice Aycock, Anthony Caro, Mark di Suvero, Nancy Holt, Donald Judd, Robert Morris, Bruce Nauman, Isamu Noguchi, Tom Otterness, Beverly Pepper, and Richard Serra. The Western Gallery provides diverse experiences in the visual arts for its constituencies, encompassing the University community and region while providing a point of reference to the national and international art scene. Through historical, contemporary and experimental art exhibitions, through the outdoor collection of contemporary sculpture, through the publications and through interpretative interdisciplinary programs, the Western Gallery is committed to creating an environment for learning. The gallery acts as a center for discussion and exchange of ideas on critical issues in contemporary art. The Western Gallery recognizes its role in expanding its audience's awareness of the visual arts as central to the dynamic and pluralistic nature of our society. Individuals interested in supervised work in the gallery are encouraged to volunteer their services.

## **Bachelor of Arts**

### **Art History, BA**

Department of Art, College of Fine and Performing Arts

**68 credits**

### Introduction/What is the Study of Art History

Art History examines the histories of art in cultural context, visual communication in the world today, and the impact of visual technology in the future. The Art History major gives students the opportunity to address social, cultural and transnational issues through an engagement with visual culture objects, images and ideas and to imagine critical intersections in the arts, humanities, and sciences by means of innovative course instruction. Art history classes are catalysts through which students make cross-connections between their major areas of study and the diverse perspectives found in visual forms of communication.

### Why Consider an Art History Major?

Are you interested in the visual language of culture and systems of representation? In studying Art History, you will learn to interpret and analyze art and visual culture. A degree in Art History will prepare you for a future as teacher, museum educator, gallery curator, visual resource librarian, art critic, scholar, and other careers that require creative problem solving and knowledge of visual language.

#### Contact Information

##### Department Chair

Gaye Green  
Fine Arts 116  
360-650-3672  
Gaye.Green@wwu.edu

##### Art Major Information

Fine Arts 116  
360-650-3660  
ArtInfo@wwu.edu

#### Sample Careers

Art Consultant | Curator | Gallery or Museum Director | Art Critic | Architectural Conservator | Art Dealer | Art Historian | Researcher | Visual Resource Librarian | Arts Administrator | Museum Educator

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

**How to apply:** To apply to the Art History major, students must have taken A/HI 275 and two 200-level art history surveys or pre-approved equivalent courses. Students must have a B average or higher in these classes to be considered for the art history program.

**Application deadlines:** Application deadlines for the Art History major are October 15 and January 31. Completed forms must be received in the Department of Art by those dates.

**Advising Tips:** Students are expected to follow all prerequisite requirements for courses and seek early departmental advisement. As students enter the program they will be assigned an advisor to develop an individualized course of study. This plan becomes an outline of the degree requirements but should be revised yearly in consultation with an advisor.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- A/HI 275 - Introduction to Writing and Critical Thinking
- A/HI 375 - Methods in Art History
- A/HI 475 - Senior Projects/Practicum  
(the above courses must be taken in sequence)
- One 100-level course (5 credits) from:
  - ART 110 - Foundation Drawing I
  - ART 120 - 2-Dimensional Art

- ❑ One course (3 credits) from:
  - A/HI 220 - Visual Culture in Ancient Greece and Rome
  - A/HI 221 - Visual Culture in Medieval Europe
- ❑ One course (3 credits) from:
  - A/HI 230 - Visual Culture in Western Europe 1400-1550
  - A/HI 231 - Visual Culture in Western Europe 1550-1700
- ❑ One course (3 credits) from:
  - A/HI 240 - Visual Culture in Western Europe in the 19th Century
  - A/HI 241 - Visual Culture in Western Europe and America in the 20th Century
- ❑ One course (3 credits) from:
  - A/HI 270 - Visual Culture in South and Southeast Asia
  - A/HI 271 - Visual Culture in East Asia
- ❑ Two additional courses from:
  - A/HI 220 - Visual Culture in Ancient Greece and Rome
  - A/HI 221 - Visual Culture in Medieval Europe
  - A/HI 230 - Visual Culture in Western Europe from 1400-1500
  - A/HI 231 - Visual Culture in Western Europe 1550-1700
  - A/HI 240 - Visual Culture in Western Europe in the 19th Century
  - A/HI 241 - Visual Culture in Western Europe and America in the 20th Century
  - A/HI 270 - Visual Culture in South and Southeast Asia
  - A/HI 271 - Visual Culture in East Asia
- ❑ 300- or 400-level courses (30 credits, with a minimum of 10 credits at the 400 level)
- ❑ Two courses (10 credits) from: Cultural Perspective Emphasis:
  - A/HI 310 - Indigenous Arts of the Pacific Northwest
  - A/HI 313 - Art and Technology
  - A/HI 368 - Pacific Arts and Visual Culture
  - A/HI 411 - Contemporary Japanese Visual Culture
  - A/HI 413 - Space and Representation
  - A/HI 429 - Patronage and Power: The Baroque Era
  - A/HI 430 - Court Art of the Renaissance
  - A/HI 431 - Popular Culture, Tourism and Leisure
  - A/HI 438 - Art and Feminism
- ❑ Two courses (10 credits) from: History and Visual Dialogue Emphasis:
  - A/HI 301 - Modern Art and Modernism
  - A/HI 315 - Civic Identity in 15th- and 16th-Century Europe
  - A/HI 330 - Art and Texts of the Sacred
  - A/HI 358 - Postwar Art and Culture
  - A/HI 360 - Nationalism and Cultural Identity, 19th and 20th Centuries
  - A/HI 370 - Islamic Visual Cultures
  - A/HI 371 - Transforming Traditions: Art and Visual Culture in Japan
  - A/HI 416 - Borders and Terrains
  - A/HI 420 - Building 17th and 18th Century Europe
- ❑ Two courses (10 credits) from: Theory and Practice Emphasis:
  - A/HI 308 - Visual Arts in the Community
  - A/HI 316 - Land and Landscape
  - A/HI 401 - Contemporary Issues and Post-Modern Critiques
  - A/HI 415 - Space and the Urban Environment
  - A/HI 440 - New Media and Digital Art

## ART

- A/HI 450 - Cross-Cultural Representation
  - A/HI 489 - Architecture and Museums
  - A/HI 490 - Seminar: Exhibition Theory and Practice
- Students are strongly encouraged to take courses outside of the art history area, such as computer technologies, modern and classical languages, anthropology, film, communication or other classes to complement their studies and provide better preparation for the diversity of careers that employ skills with visual language.

### Departmental Honors

In addition to the general requirements for all honors students, an art major who wishes to graduate with honors must complete an honors senior project in art.

## Art Studio, BA

Department of Art, College of Fine and Performing Arts

### 67 credits

### Introduction/What is the Study of Art Studio?

Art Studio includes ceramics, drawing/painting, fiber/fabrics, mixed media, photography, printmaking and sculpture. The objectives of the major are to investigate the function of art and the relationships between art, culture, artist and audience. Art studio classes are designed to familiarize students with the principles that shape and inform visual literacy and expression through a variety of practices in art making. Students meet with an advisor after completing 200-level courses to write a formal plan of study and select an area of Art Studio for concentration.

### Why Consider an Art Studio Major?

To learn to create, interpret, analyze, and make informed judgments about art, studio concepts, and practices.

#### Contact Information

##### Department Chair

Gaye Green  
Fine Arts 116  
360-650-3672  
Gaye.Green@wwu.edu

##### Art Major Information

Fine Arts 116  
360-650-3660  
ArtInfo@wwu.edu

#### Sample Careers

Art Educator | Exhibiting Artist | Exhibit Designer | Gallery Director | Photographer | Curator

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Most classes in the Studio area are restricted to majors only. To access classes in this area, a formal application to the Department of Art is required. For students in art studio, art education, application for the major is made with a portfolio of work. The portfolio will be reviewed by Department of Art faculty and evaluated on the basis of a demonstrated understanding of the elements of visual art, technical proficiency and originality.

**Application Requirements:**

All applicants of Art Studio and Art Education majors must submit a portfolio of 12 works. It is recommended that the portfolio includes only recent pieces. Artwork can be in any media and must demonstrate the following criteria:

- Understanding of formal principles
- Technical skills
- Ability to use visual language to communicate ideas
- Originality and risk taking

An accompanying list should briefly describe the rationale behind each piece. Macintosh-compatible CD-ROMs; slides and online portfolios are acceptable. Digital portfolios must be presented in an easily accessible format. It is the applicant's responsibility to ensure proper functioning of the presentation.

Send portfolio to:  
 Review Committee  
 Western Washington University  
 Fine Arts Complex, Room 116  
 516 High Street  
 Bellingham, WA 98225-9068

**Application Deadlines:** Application deadlines are October 15 and January 31. Portfolios must be received by the deadlines, not postmarked by the deadlines.

**Advising Tips:** Students meet with an advisor after completing 200-level courses to write a formal plan of study and select an area of Art Studio for concentration.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

**Requirements**

- ART 109 - Visual Dialogue
- ART 110 - Foundation Drawing I
- ART 120 - 2-Dimensional Art
- ART 203 - Foundation Drawing II
- ART 230 - 3-Dimensional Art
- 9 credits from the following:
  - One course from:
    - A/HI 220 - Visual Culture in Ancient Greece and Rome
    - A/HI 221 - Visual Culture in Medieval Europe
  - One course from:
    - A/HI 230 - Visual Culture in Western Europe 1400-1550
    - A/HI 231 - Visual Culture in Western Europe 1550-1700
  - One course from:
    - A/HI 240 - Visual Culture in Western Europe in the 19th Century
    - A/HI 241 - Visual Culture in Western Europe and America in the 20th Century
  - One course from:
    - A/HI 270 - Visual Culture in South and Southeast Asia
    - A/HI 271 - Visual Culture in East Asia
- After completing the 200-level classes students must meet with an advisor to write a formal plan of study and declare a concentration in one area of Art Studio
- 15 credits of 300- or 400-level art studio courses in area of selected concentration
- 5 credits of 300- or 400-level art studio or design electives

# ART

- 5 credits from:
  - ART 494 - Advanced Studio Seminar
  - ART 495 - Professional Practices for Studio Artist
- 10 credits of 300- or 400-level art history

## Departmental Honors

In addition to the general requirements for all honors students, an art major who wishes to graduate with honors must complete an honors senior project in art.

## Bachelor of Arts in Education

### Art — Elementary, BAE

Department of Art, College of Fine and Performing Arts

#### 48 credits

#### Introduction/What is the Study of Art-Elementary?

The broad instructional concept is to integrate the components of art history, art criticism, and studio art courses, university courses, Gallery Exhibition Program and the permanent collection. The student learns to interpret, analyze and make intelligent judgments about art as well as learning the skills and concepts of the studio. A grasp of the dynamic nature of a culture and the continuing extension of its visual language is a fundamental objective.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional program in elementary education. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### Why Consider an Art-Elementary Major?

The B.A.Ed. in Art will prepare you to teach students at the elementary grade level. The program will introduce you to curricular design in the arts and the 4 components of Discipline Based Art Education which is an approach to the teaching of Art Education that encompasses criticism, history, aesthetics, and art studio.

#### Contact Information

##### Department Chair

Gaye Green  
Fine Arts 116  
360-650-3672  
Gaye.Green@wwu.edu

##### Art Major Information

Fine Arts 116  
360-650-3660  
ArtInfo@wwu.edu

##### Elementary Educational Professional Program Information

Miller Hall 300  
360-650-3336  
<http://www.wce.wwu.edu/Depts/ELED>

##### Teacher Education Admissions

Miller Hall 150  
360-650-3313  
<http://www.wce.wwu.edu/admiss>

##### Elementary Education Professional Program Advisor and Program Manager

Ellen Kreider  
Miller Hall 301D  
360-650-7948  
Ellen.Kreider@wwu.edu

## Sample Careers

Art Educator | Art Therapy

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Most classes in the Studio areas are restricted to majors only. To access classes in these areas a formal application to the Department of Art is required. For students in art studio, or art education, application for the major is made with a portfolio of work. The portfolio will be reviewed by Department of Art faculty and evaluated on the basis of a demonstrated understanding of the elements of visual art, technical proficiency and originality. Application deadlines are October 15 and January 31. Portfolios must be received by the deadlines.

For application and information: <http://www.wvu.edu/art>.

### Grade Requirements

A grade of C (2.0) or better is required for courses in the elementary education professional program and all courses required for the endorsement.

#### Requirements

- ART 109 - Visual Dialogue
- ART 110 - Foundation Drawing I
- ART 120 - 2-Dimensional Art
- 200-level courses (10 credits):
  - ART 203 - Foundation Drawing II
  - ART 230 - 3-Dimensional Art
- Studio courses (10 credits):
  - ART 240 - Ceramics I
  - ART 331 - Sculpture-Wood
  - ART 342 - Ceramics III
  - ART 350 - Printmaking I
  - ART 360 - Fibers and Fabrics I
  - ART 361 - Surface Design
  - ART 370 - B&W Photography I
- Art Education Requirement:
  - ART 380 - Art Educating the Child
- Art History Requirement, select 12 credits from (choose one course from each group):
  - A/HI 220 - Visual Culture in Ancient Greece and Rome
  - A/HI 221 - Visual Culture in Medieval Europe
  - AND
  - A/HI 230 - Visual Culture in Western Europe 1400-1550
  - A/HI 231 - Visual Culture in Western Europe 1550-1700
  - AND
  - A/HI 240 - Visual Culture in Western Europe in the 19th Century
  - A/HI 241 - Visual Culture in Western Europe and America in the 20th Century
  - AND
  - A/HI 270 - Visual Culture in South and Southeast Asia
  - A/HI 271 - Visual Culture in East Asia



## Additional Requirements

### Elementary Education Professional Program Requirements (103-104 credits)

Department of Elementary Education, Woodring College of Education

#### **Introduction**

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

#### **Admission and Declaration Process**

Admission Requirements

#### **Grade Requirements**

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

#### Professional Studies Core (25 credits)

- ELED 301 - Educational Psychology I: Development and Individual Differences
- ELED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Basic Instructional Technology Skills
- I T 442 - Classroom Use of Instructional Technology (Elementary)
- SPED 364 - Teaching Each Student

#### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-79 credits)

One course from:

- ART 398 - Integrated Arts for Elementary Educators
- DNC 398 - Integrated Arts for Elementary Educators
- MUS 398 - Integrated Arts for Elementary Educators
- THTR 398 - Integrated Arts for Elementary Educators

One course from:

- ART 380 - Art Educating the Child
- DNC 433 - Creative Movement for Educators With Lab
- MUS 361 - Music for Elementary Teachers
- THTR 350 - Theatre for Youth
- THTR 351 - Creative Pedagogy
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8

- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

### Departmental Honors

In addition to the general requirements for all honors students, an art major who wishes to graduate with honors must complete an honors senior project in art.

## Art — P-12, BAE

Department of Art, College of Fine and Performing Arts

### 70 credits

#### Introduction/What is the Study of Art P-12?

The broad instructional concept is to integrate the components of art history, art criticism, and studio art courses, university courses, Gallery Exhibition Program and the permanent collection. The student learns to interpret, analyze and make intelligent judgments about art as well as learning the skills and concepts of the studio. A grasp of the dynamic nature of a culture and the continuing extension of its visual language is a fundamental objective.

This major must be accompanied by the professional preparation program in secondary education and leads to an endorsement in visual arts. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### Why Consider an Art P-12 Major?

Students choose to study art in order to understand the history, traditions and conventions of art and art criticism, for herein lies the intelligible language of art and the heritage of humankind. The B.A. Ed. in Art will prepare you to teach this language and heritage to students, from pre-school to 12th grades. The program will introduce you to curricular design in the arts and the 4 components of Discipline Based Art Education which is an approach to the teaching of Art Education that encompasses criticism, history, aesthetics, and art studio.

Contact Information		
<b>Art Department Chair</b> Gaye Green Fine Arts 116 360-650-3672 Gaye.Green@wwu.edu	<b>Art Major Information</b> Fine Arts 116 360-650-3660 ArtInfo@wwu.edu	<b>Teacher Education Admissions</b> Miller Hall 150 360-650-3313 <a href="http://www.wce.wwu.edu/admiss">http://www.wce.wwu.edu/admiss</a>
<b>Secondary Education website</b> <a href="http://www.wce.wwu.edu/Depts/SEC">http://www.wce.wwu.edu/Depts/SEC</a>	<b>Secondary Education Program Coordinator</b> Debbie Gramm Miller Hall 401A 360-650-3327 Debbie.Gramm@wwu.edu	<b>Secondary Education Program Manager</b> Janna Cecka Miller Hall 401C 360-650-3327 Janna.Cecka@wwu.edu

#### Sample Careers

Art Educator | Art Therapy

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

**Admissions:** Application for the major is made with a portfolio of 12 works.

It is recommended that the portfolio include only recent pieces. Artwork can be in any media. The portfolio will be reviewed by the Department of Art faculty and evaluated on the basis of a demonstrated understanding of the elements of visual art, technical proficiency and originality.

### **Application deadlines:**

Application deadlines for currently enrolled Western students are October 15 and January 31. Application deadlines for new transfer students are October 15 (for students starting winter and spring quarters). Application deadline for new freshman is January 31. Portfolios must be received by the deadline, not postmarked by the deadlines.

Send portfolio to:

Review Committee, Western Washington University

Fine Arts Complex, Room 116, 516 High Street, Bellingham, WA 98225-9068

In order to graduate, students must also be admitted to the Secondary Education Professional Program.

For application and information: <http://www.wvu.edu/art>.

### **Grade Requirements**

A grade of C (2.0) or better is required for courses in the elementary education professional program and all courses required for the endorsement.

#### Requirements

- ART 109 - Visual Dialogue
- ART 110 - Foundation Drawing I
- ART 120 - 2-Dimensional Art
- ART 381 - Theories and Teaching Strategies in Art Education
- Art History (15 credits) selected from the following:
  - A/HI 220 - Visual Culture in Ancient Greece and Rome
  - A/HI 221 - Visual Culture in Medieval Europe
  - A/HI 230 - Visual Culture in Western Europe 1400-1550
  - A/HI 231 - Visual Culture in Western Europe 1550-1700
  - A/HI 240 - Visual Culture in Western Europe in the 19th Century
- 200 level studio courses (10 credits):
  - ART 203 - Foundation Drawing II
  - ART 230 - 3-Dimensional Art
- A selection of 5 studio courses (25 credits):
  - ART 240 - Ceramics I
  - ART 320 - Painting I
  - ART 322 - Painting II
  - ART 324 - Figure Painting
  - ART 325 - Experimental Painting
  - ART 331 - Sculpture-Wood
  - ART 342 - Ceramics III
  - ART 350 - Printmaking I
  - ART 351 - Printmaking: Relief
  - ART 352 - Printmaking: Stone Lithography

- ART 353 - Printmaking: Etching
- ART 360 - Fibers and Fabrics I
- ART 361 - Surface Design
- ART 362 - Papermaking and Mixed Media
- ART 367 - Advanced Weaving
- ART 370 - B&W Photography I
- ART 371 - B&W Photography II
- ART 372 - Color Photography
- ART 373 - Photography Alternative Processes
- Art History (3 credits, selected from the following):
  - A/HI 270 - Visual Culture in South and Southeast Asia
  - A/HI 271 - Visual Culture in East Asia
  - A/HI 310 - Indigenous Arts of the Pacific Northwest
  - A/HI 368 - Pacific Arts and Visual Culture
  - A/HI 370 - Islamic Visual Cultures
  - A/HI 371 - Transforming Traditions: Art and Visual Culture in Japan
  - A/HI 411 - Contemporary Japanese Visual Culture

#### Additional Requirements

#### Secondary Education Professional Program Requirements (68 credits)

- SEC 301 - Educational Psychology I: Development and Individual Differences
- SEC 302 - Educational Psychology II: Motivation, Learning and Assessment
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching Laboratory
- SEC 435 - Middle Level Practicum
- SEC 436 - Secondary School Practicum
- SEC 444 - Supporting Teaching and Learning with Technology
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

#### Departmental Honors

In addition to the general requirements for all honors students, an art major who wishes to graduate with honors must complete an honors senior project in art.

## Bachelor of Fine Arts

### Art Studio, BFA

Department of Art, College of Fine and Performing Arts

**115 credits****Introduction/What is the Study of Art Studio?**

The Bachelor of Fine Arts degree is the professional undergraduate art degree. It is an expanded undergraduate degree that requires each student to undertake a program of 48 credits of coursework beyond the Art Studio, Bachelor of Arts major, and to complete a self-determined body of artwork for exhibition.

**Why Consider an Art Studio Major and a Bachelor of Fine Arts Major?**

To continue beyond the Art Studio, BA degree and learn to create, interpret, analyze, and make informed judgments about art, studio concepts and practices at an advanced level.

Contact Information	
<b>Department Chair</b>	<b>Art Major Information</b>
Gaye Green	Fine Arts 116
Fine Arts 116	360-650-3660
360-650-3672	ArtInfo@wwu.edu
Gaye.Green@wwu.edu	
Sample Careers	
Art Educator   Exhibiting Artist   Exhibit Designer   Gallery Director   Photographer   Curator	
Major/Career Resources	
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>	

**How to Declare (Admission and Declaration Process):**

Application should be made to the Department of Art faculty for admission to the Bachelor of Fine Arts program during spring quarter of the preceding year. Students must be in the final quarter of the Bachelor of Arts study, or have completed the Bachelor of Arts to apply for the Bachelor of Fine Arts program.

Application consists of 20 labeled digital images of work, artist statement, a letter of application indicating your goals and theme of study and a preference for faculty committee members; a grade point average of 3.00 or higher, and a transcript. The BFA is a selective and competitive program. If a student is not accepted into the BFA program, the student may reapply the following year.

All students must begin their BFA studies in the fall quarter. Applications will be reviewed at the end of spring quarter and/or during the week prior to the beginning of fall quarter. (Specific dates will be announced each year.) Following acceptance to the BFA program, a committee of at least two Art faculty members will be formed to work with the student throughout the year. An additional faculty member from outside the Department may be invited by the student to serve on his or her committee. Studio faculty must approve the third committee member.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

**Requirements**

- Completion of the Art, Bachelor of Arts course study
  - 5 credits of ART 496 - BFA Seminar
  - 9 credits of ART 492 - BFA Project
  - 9 credits of ART 493 - BFA Exhibition
  - 5 credits from:
    - ART 494 - Advanced Studio Seminar
    - ART 495 - Professional Practices for Studio Artist

- 5 credits of studio practice in areas of focus
- 10 credits of 300- or 400-level art history
- 5 credits of electives specific to course study
- Fall and Winter faculty committee reviews
- Final exhibition and final faculty committee review

#### Additional Requirements:

During the BFA program students spend three quarters creating a self-determined body of artwork. Attention is given to the medium(s), method(s), and the content of the creative activity. Evaluation by the student's full committee occurs during Fall, Winter and Spring quarters. At the culmination of the project each student is required to exhibit their completed work in a one or two-person exhibition. In addition, the student is required to submit a research-driven artist's statement that supports the individual's own intellectual and creative achievement. The student's final review with full committee will be scheduled during the period of the student's exhibition. This is an opportunity for the student to discuss and defend their work. Failure to meet these requirements on schedule will be considered as unsatisfactory progress and may result in the student completing the Bachelor of Arts degree only.

#### Departmental Honors

In addition to the general requirements for all honors students, an art major who wishes to graduate with honors must complete an honors senior project in art.

## Minor

### Art History Minor

Department of Art, College of Fine and Performing Arts

#### 27 credits

#### Introduction/What is the Study of Art History?

#### Why Consider an Art History Minor?

##### Contact Information

##### Department Chair

Gaye Green  
 Fine Arts 116  
 360-650-3660  
 Gaye.Green@wwu.edu

##### Art Minor Information

Fine Arts 116  
 360-650-3660  
 ArtInfo@wwu.edu

##### Sample Careers

##### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

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## Requirements

- ❑ One course from:
  - A/HI 220 - Visual Culture in Ancient Greece and Rome
  - A/HI 221 - Visual Culture in Medieval Europe
- ❑ One course from:
  - A/HI 230 - Visual Culture in Western Europe 1400-1550
  - A/HI 231 - Visual Culture in Western Europe 1550-1700
- ❑ One course from:
  - A/HI 240 - Visual Culture in Western Europe in the 19th Century
  - A/HI 241 - Visual Culture in Western Europe and America in the 20th Century
- ❑ One course from:
  - A/HI 270 - Visual Culture in South and Southeast Asia
  - A/HI 271 - Visual Culture in East Asia
- ❑ Three additional art history courses (15 credits) at the 300 or 400 level. A/HI 305 and 306 may not be used for Art History minor

## Art Courses

### **ART 101 - Glass Blowing I**

Develop proficiency with glass blowing concepts and techniques through exploration of the art form and design. Repeatable to a maximum of 12 credits, including original course.

Credits: 4

Grade Mode: S/U

### **ART 102 - Glass Blowing II**

Continued development of proficiency with glass blowing concepts and techniques through exploration of the form and design; focus on the creation of original glass work derived from research and drawing. Students' technical study will be complemented by critical discourse about glass in contemporary art. Repeatable to a maximum of 8 credits, including original course.

**Prerequisites & Notes:** ART 101

Credits: 4

Grade Mode: S/U

### **ART 109 - Visual Dialogue**

Open to all students with the exception of a number of seats reserved for art majors each quarter. Art studio pre-majors are advised to take ART 109 in their first or second quarter concurrently with ART 110. Introduction to ideas and artists in 20th century art with an emphasis on the contemporary. Examines concepts of content,

meaning, and cultural interrelationships in art, and questions the nature, function, and importance of art in contemporary society.

Credits: 3

GUR Attributes: HUM

### **ART 110 - Foundation Drawing I**

This course focuses on the techniques and materials of drawing. The course includes figure drawing, perspective studies and drawing from memory and the imagination. The concept of drawing as a means of conveying ideas is emphasized.

**Prerequisites & Notes:** Open to non-Art majors after Phase I registration.

Credits: 5

### **ART 120 - 2-Dimensional Art**

This course introduces visual problem solving by exploring the elements and principles of design and color. Traditional and digital applications are integrated throughout all aspects of the coursework.

**Prerequisites & Notes:** Open to non-Art majors after Phase I registration.

Credits: 5

### **ART 203 - Foundation Drawing II**

Examines the definition of drawing in the 21st century and explores contemporary approaches to drawing. Seeks to broaden the conceptual and technical basis for students' work and investigate a broad range of materials and traditions, including abstraction, observation, collage, imagination, color and mixed media on paper. Experimentation with tools and techniques and in developing an individual system for artistic expression.

**Prerequisites & Notes:** ART 109; ART 110; ART 120.

Credits: 5

### **ART 230 - 3-Dimensional Art**

Entry-level 3D course with emphasis on introducing methods, materials and ideas pertaining to current practices in 3D art. Fundamental concepts and techniques will be explored through hands-on projects in media ranging from fibers, ceramics, wood, metal and other media associated with the making of 3D art. This course will introduce the idea of sculpture and art forms as repositories for content.

**Prerequisites & Notes:** ART 109; ART 110; ART 120.

Credits: 5

### **ART 240 - Ceramics I**

Introduction to ceramics. Pottery and sculptural forms are hand-built using coil, slab and molded techniques. Introduction to glaze formulation, kiln loading and firing.

**Prerequisites & Notes:** ART 109; ART 110; ART 120; or permission of instructor.

Credits: 5

### **ART 303 - Drawing Projects**

Students explore theme and concept in drawing through individual development with a variety of media, tools, and techniques. Studio work is complemented by in-depth discussion of issues in historical and contemporary art and drawing. Repeatable to a maximum of 10 credits, including original course.

**Prerequisites & Notes:** ART 203; ART 230 or concurrent.

Credits: 5

### **ART 304 - Figure Drawing and Issues of the Body**

Intermediate-level investigation through two-dimensional media of the human form. Basic drawing techniques and topics such as gesture, proportion, line, color, texture, value, expression, and some basic anatomy will be covered as applied to the life model. Explores contemporary issues of the body in art through major thematic and conceptual projects. Repeatable to a maximum of 15 credits, including original course.

**Prerequisites & Notes:** ART 203 and ART 230.

Credits: 5

### **ART 305 - Experimental Drawing**

An intermediate level course that covers a wide range of materials and procedures. Students will be pushed to expand upon their own definition of what constitutes a drawing through key issues and exploration including: chance, operation, exterior influences, the use of non-traditional drawing materials and tools, bringing drawing into a third dimension, and drawing as a means to, or part of, a larger whole. The course aims to help the student build a suitable foundation for further artistic development in a variety of media. Mature levels of invention and problem solving, and the development of critical insight that facilitates dialogue and conceptual skills are required. Lecture/lab. Repeatable to a maximum of 15 credits.

**Prerequisites & Notes:** ART 203 and ART 230

Credits: 5

### **ART 306 - Mixed Media on Paper**

An intermediate level course that emphasizes the use and combining of diverse media and surfaces. Techniques covered will include: collage, ground surface treatments, washes, gouache, working with found and recycled material, and other modes of working with contemporary sources and forms. Repeatable up to 10 credits.

**Prerequisites & Notes:** ART 203 and ART 230

Credits: 5

### **ART 320 - Painting I**



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An introduction to contemporary painting. Students study direct and indirect painting techniques with observational and photo-based sources. The course puts special emphasis on color theory and color mixing.

**Prerequisites & Notes:** ART 203 and ART 230  
Credits: 5

## **ART 322 - Painting II**

Continued exploration of painting concepts and techniques through the development of individual content. Studio work is complemented by in-depth discussion of issues in historical and contemporary painting. Lecture/lab. Repeatable to a maximum of 15 credits, including original course.

**Prerequisites & Notes:** ART 320  
Credits: 5

## **ART 324 - Figure Painting**

Painting concepts and techniques with an emphasis on the human form and the figure in context. Studio work is complemented by in-depth discussion of issues of historical and contemporary figure painting. Repeatable to a maximum of 10 credits, including original course.

**Prerequisites & Notes:** ART 320  
Credits: 5

## **ART 325 - Experimental Painting**

An investigation of contemporary painting strategies using abstraction, mixed-media, and installation. Repeatable to a maximum of 10 credits, including original course.

**Prerequisites & Notes:** ART 320  
Credits: 5

## **ART 331 - Sculpture-Wood**

Examines the traditions of wood sculpture in the context of utilizing a variety of woods and wood-based materials to make contemporary sculpture. Further emphasis is placed upon development of concepts in relation to forms and materials. Repeatable to a maximum of 10 credits, including original course.

**Prerequisites & Notes:** ART 230

Credits: 5

## **ART 332 - Sculpture - Metals**

Focus on traditional, industrial and alternative processes in metal fabrication and casting as a means of producing contemporary sculpture. Emphasis on achieving a balance between studio practice and theory. Repeatable to a maximum of 10 cr.

**Prerequisites & Notes:** ART 230  
Credits: 5

## **ART 333 - Sculpture - Mixed Media**

Use of disparate media for contemporary object making and non-two-dimensional art forms, within an expanding field of alternative sculptural practices. Repeatable to a maximum of 10 credits.

**Prerequisites & Notes:** ART 230  
Credits: 5

## **ART 334 - Installation Art**

Explores distinctions between private and public art, traditional gallery presentation and site-specific installations. Performance and collaboration with other artists or disciplines will be offered as possible areas of work. Additional emphasis on effective documentation of temporary and site-specific work. Lecture/lab. Repeatable to a maximum of 10 credits.

**Prerequisites & Notes:** Art 230  
Credits: 5

## **ART 335 - Intermediate, Mixed Media, Time-Based Art and Installation**

Course will provide a more advanced and ambitious, multiple project-oriented work environment for exploring contemporary studio practices in intermedia, mixed media, time-based art and installation. This will include but not be limited to the opportunity for work in time-based media such as performance, sound and video. Traditional gallery presentation, site-specific installations, collaboration and producing effective documentation will also be covered. Students will be encouraged to consider the production of their art as creative research or a mode of personal inquiry.

**Prerequisites & Notes:** ART 109; ART 130; ART 230; or instructor permission.

Credits: 5

### **ART 341 - Ceramics II**

Introduction to the potter's wheel as a tool; hand building, glaze formulation and kiln firing.

**Prerequisites & Notes:** ART 240

Credits: 5

### **ART 342 - Ceramics III**

Intermediate problems in clay as a medium. Development of individual directions in pottery and/or ceramic sculpture. Weekly seminars. Repeatable to a maximum of 15 credits, including original course.

**Prerequisites & Notes:** ART 240 and ART 341

Credits: 5

### **ART 343 - Summer Intensive Ceramics**

How, why, when and what to do with clay. Basic manipulation of clay; glazing and kiln firing. Attention to workable classroom problems, critiquing, safety, historical background and slide presentations. Covers a variety of hand-building techniques, how to use the potter's wheel, glazing, casting, kiln loading and firing. A variety of clays and firing techniques are used. Offered summers only. Repeatable to a maximum of 15 cr.

Credits: 5

### **ART 350 - Printmaking I**

Course covering history, methods, and practice of print concepts. Color, black and white, and digital/photographic methods discussed/explored. Introduction to monotype, relief, lithographic, and intaglio processes.

**Prerequisites & Notes:** ART 203 and ART 230.

Credits: 5

### **ART 351 - Printmaking: Relief**

Students explore carving and printing of linoleum and woodblock surfaces. An emphasis is placed on color printing and working in layers, as well as relief engraving. Historical and contemporary examples are explored. Repeatable to a maximum

of 15 credits, including original course.

**Prerequisites & Notes:** ART 350

Credits: 5

### **ART 352 - Printmaking: Stone Lithography**

A course covering history, methods, criticism, and practice of stone lithography including color printing and registration. Historical and contemporary lithographic examples explored. Repeatable to a maximum of 15 credits, including original course.

**Prerequisites & Notes:** ART 350

Credits: 5

### **ART 353 - Printmaking: Etching**

Course covers history, methods, criticism, and practice of copper plate etching. Techniques include: hard-ground and soft-ground etching, aquatint, mezzotint, color applications, multi-plate registration, and photo-polymer gravure. Historical and contemporary examples explored. Repeatable to a maximum of 15 credits, including original course.

**Prerequisites & Notes:** ART 350.

Credits: 5

### **ART 360 - Fibers and Fabrics I**

Introduction to technical explorations of dye application, fabric manipulation, and structural process of textile production. Technical information accompanied by presentations of contemporary fiber history and issues. Specifics include: tie dyeing, Katazome (paste resist stencil dyeing), and loom weaving. All explorations to focus on the inherent expressive/conceptual qualities of traditional fiber media and processes and their mixed media counterparts. Lecture/lab.

**Prerequisites & Notes:** ART 203 and ART 230 or concurrent.

Credits: 5

### **ART 361 - Surface Design**

Techniques and concepts of cloth alteration with an emphasis on surface and design. Specifics include: heat transfer dye on polyester fabric, advanced dyeing techniques on silk and screen-printing. Through traditional and contemporary fiber

## ART

investigations, students will develop thematic and conceptual ideas while learning new skills and processes. Lecture/lab. Repeatable to a maximum of 15 credits, including original course.

**Prerequisites & Notes:** ART 360

Credits: 5

### **ART 362 - Papermaking and Mixed Media**

A lecture/lab course covering the history of papermaking, exploration of the traditional processes of various cultures, and contemporary applications. Two-dimensional and three-dimensional projects will be made utilizing a variety of materials. Specifics include: Japanese papermaking, watermarks, recycled paper, etc. Paper casting is the main 3D project. Lecture/lab. Repeatable to a maximum of 15 credits, including original course.

**Prerequisites & Notes:** ART 203 and ART 230

Credits: 5

### **ART 363 - 3-Dimensional Forms in Fiber**

Focuses on three-dimensional off-loom processes in fiber and material studies. Historical and contemporary applications of sandal weaving, basket making, felt making, lace making, and soft sculpture including wearable art will be explored. Integration between 2D and 3D forms will be conceptually presented through individual skills and creative ideas. Lecture/lab. Repeatable to a maximum of 15 credits, including original course.

**Prerequisites & Notes:** ART 203 and ART 230

Credits: 5

### **ART 367 - Advanced Weaving**

Focus on loom weaving techniques such as pattern weaving, double cloth weaving, Ikat weaving, tapestry and the AVL computer loom. Understanding woven structures and personal expression using both traditional and contemporary process as an art form will be explored. Lecture/lab. Repeatable to a maximum of 15 credits, including original course.

**Prerequisites & Notes:** ART 360

Credits: 5

### **ART 370 - B&W Photography I**

Fundamentals of black and white developing, enlarging, print finishing. This introduction course is structured to establish a solid grounding in traditional, lab-based photographic art practices and includes an introduction to basic digital applications. All photography course work puts an equal emphasis on theory, techniques, and the history of photography in a contemporary context.

**Prerequisites & Notes:** ART 203 and ART 230; or concurrent.

Credits: 5

### **ART 371 - B&W Photography II**

This is an intermediate level course concentrating on black and white, which offers students an opportunity to develop their knowledge, skills, and concepts through, seminars, readings, exhibitions and professional practices. It stresses the development of personal style through concentrated studies in specialized materials and processes ranging from traditional lab-based technique to digital applications. Repeatable to a maximum of 15 credits, including original course.

**Prerequisites & Notes:** ART 370

Credits: 5

### **ART 372 - Color Photography**

This course focuses on the fundamentals of color theory, techniques and the experimentation as related to the production of color images. It explores both traditional lab-based and digital investigations. Repeatable to a maximum of 15 credits, including original course.

**Prerequisites & Notes:** ART 370 and ART 371.

Credits: 5

### **ART 373 - Photography Alternative Processes**

This course explores the history and practice of alternative forms of image construction and processes. It covers numerous traditional and contemporary photo techniques, from non-silver techniques (Cyan, Van Dyke) to the construction of digital negatives. The course will address historical and contemporary applications of alternative processes. Class time consists of hands-on demonstrations, slide presentations, supervised darkroom time, individual and group discussions. Repeatable up to 10 credits, including original

course.

**Prerequisites & Notes:** ART 371

Credits: 5

### **ART 380 - Art Educating the Child**

Not for ART majors. Strategies and techniques in production of art and critical inquiry by elementary school children.

**Prerequisites & Notes:** Open to Education Majors only.

Credits: 3

### **ART 381 - Theories and Teaching Strategies in Art Education**

The study and application of art education theory in the elementary and secondary schools. Emphasis will be placed on curricular development in art criticism, aesthetics, art history and studio production.

**Prerequisites & Notes:** Admission to Woodring College of Education; Art 109, ART 110, ART 120, ART 130.

Credits: 4

### **ART 394 - Art Workshop: Italy**

Intensive drawing and painting workshop in Italy. Summer only. Course will be team taught in central and northern Italy. Explores drawing and painting as well as on-site study of Italian art and culture. Lecture/lab. Repeatable.

**Prerequisites & Notes:** ART 110 or other beginning drawing courses

Credits: 7

### **ART 396 - Summer Art Program in Japan**

Study traditional and contemporary culture in Japan. Activities include: visiting historical sites, galleries, museums and artist studios. Experience a tea ceremony, papermaking, weaving, natural dyeing and more. Students will contribute to an exhibition following the trip. Offered summer quarter only.

**Prerequisites & Notes:** ART 109 and ART 110.

Credits: 7

### **ART 398 - Integrated Arts for Elementary Educators**

This arts education course provides future teachers with a foundation in the elements and principles of Visual Art, Dance, Music and Theatre and their applicability to the elementary classroom. (Also offered as DNC 398, MUS 398 and THTR 398).

**Prerequisites & Notes:** Admission to a teacher education program leading to an elementary endorsement.

Credits: 3

### **ART 422 - Advanced Drawing and Painting**

Development of individual projects in painting and/or drawing through independent studio practice. Studio work is complemented by: discussion of pertinent topics in historical and contemporary painting and drawing, critiques, readings, field trips and guest lectures. Repeatable to a maximum of 10 credits.

**Prerequisites & Notes:** 15 credits of 300 level in any of the following; ART 303, ART 304, ART 305, ART 306, ART 322, ART 324, ART 325.

Credits: 5

### **ART 431 - Advanced Sculpture**

Project-oriented advanced work. Working closely with instructor, students will concentrate on the development of their discipline and artistic production as a personal mode of creative research, in the general context of contemporary art practices. Lecture/lab. Repeatable to a maximum of 15 credits.

**Prerequisites & Notes:** 15 credits of 300-level sculpture or instructor permission

Credits: 5

### **ART 441 - Advanced Ceramic Workshop**

Problems in advanced ceramics; self-directed projects and weekly seminars. Repeatable to a maximum of 15 cr.

**Prerequisites & Notes:** ART 342

Credits: 5

### **ART 460 - Advanced Fibers/Fabrics**

Advanced problems in fiber/fabrics study. Emphasis on self-directed project development and

## ART

contemporary issues in fibers/fabrics. Repeatable to a maximum of 15 cr.

**Prerequisites & Notes:** 5 credits of 300-level fiber courses or instructor permission  
Credits: 5

### **ART 470 - Advanced Photography Seminar**

Using a small group dynamic to critique and exchange ideas based on readings, visiting artists and theoretical inquiry, this class explores contemporary concepts surrounding the production of photography. The course consists of self-directed projects, which afford students time to produce a substantial body of research-driven work which reflects their individual interests. Repeatable to a maximum of 15 credits, including original course.

**Prerequisites & Notes:** ART 370 and ART 371; or permission of instructor.  
Credits: 5

### **ART 482 - Art Education Workshop**

Explorations in art media and their adaptation to use in the school. Not to be used for graduate program. Repeatable to a maximum of 15 cr.

**Prerequisites & Notes:** Teaching experience  
Credits: 1-5

### **ART 492 - BFA Project**

Students develop a self-directed body of work under the supervision of their faculty committee, independently researching the materials, techniques, processes, subject matter, critical issues and related artistic production that will contribute to their creative project. Repeatable to a maximum of 9 credits, including original course.

**Prerequisites & Notes:** Admission to BPA Program  
Credits: 3

### **ART 493 - BFA Exhibition**

In consultation with their faculty committee, students prepare their work for presentation and research materials, display methods, installation formats and venues. They construct frames, pedestals and other supporting structures; document their work; and prepare and produce

explanatory materials for the BFA exhibition and related promotion and publication. Repeatable up to a maximum of 9 credits, including original course.

**Prerequisites & Notes:** Admission to BFA Program  
Credits: 3

### **ART 494 - Advanced Studio Seminar**

Critique-driven interdisciplinary course based in self-directed project development with an emphasis on contemporary issues in studio art. Repeatable to a maximum of 15 cr.

**Prerequisites & Notes:** Senior status, BFA status or instructor permission.  
Credits: 5

### **ART 495 - Professional Practices for Studio Artist**

For the student who anticipates graduation and completion of the Studio Art BA or BFA degree in the near future. Designed to facilitate entry into the world of professional artists, galleries, critics, and curators, with an emphasis on survival skills for the emerging artist. Includes current trends, professional issues and practices, and the preparation of a complete portfolio.

**Prerequisites & Notes:** Senior status, BFA status or instructor permission.  
Credits: 5

### **ART 496 - BFA Seminar**

Art 496 is an advanced seminar that will address issues in studio practice for the BFA student. Repeatable to a maximum of 15 credits.

**Prerequisites & Notes:** Acceptance into BFA Program.  
Credits: 5

## Art History Courses

### **A/HI 220 - Visual Culture in Ancient Greece and Rome**

Art and visual culture from prehistoric Aegean civilizations to the 7th century C.E. in Greece and Rome.

Credits: 3  
GUR Attributes: HUM

**A/HI 221 - Visual Culture in Medieval Europe**

Art and visual culture from the sixth to 14th centuries in Europe.

Credits: 3  
GUR Attributes: HUM

**A/HI 230 - Visual Culture in Western Europe 1400-1550**

Art and visual culture in Western Europe 1400-1550.

Credits: 3  
GUR Attributes: HUM

**A/HI 231 - Visual Culture in Western Europe 1550-1700**

Art and visual culture in Western Europe, 1550-1700.

Credits: 3  
GUR Attributes: HUM

**A/HI 240 - Visual Culture in Western Europe in the 19th Century**

Issues and topics in art, 19th century.

Credits: 3  
GUR Attributes: HUM

**A/HI 241 - Visual Culture in Western Europe and America in the 20th Century**

Issues and topics in art, 20th century.

Credits: 3  
GUR Attributes: HUM

**A/HI 270 - Visual Culture in South and Southeast Asia**

Issues and topics in South and Southeast Asian art and visual culture, from ancient to contemporary.

Credits: 3  
GUR Attributes: ACGM

**A/HI 271 - Visual Culture in East Asia**

Issues and topics in Chinese, Korean, and Japanese visual culture, from ancient to

contemporary.

Credits: 3  
GUR Attributes: ACGM

**A/HI 275 - Introduction to Writing and Critical Thinking**

A preparatory course to develop skills in writing and analysis for the art historical field. Open to all Western students, but required for Art History majors. For Art History majors, A/HI 275, 375 and 475 must be taken in order because they sequentially develop visual analysis skills.

**Prerequisites & Notes:** ENG 101.

Credits: 5  
GUR Attributes: CCOM

**A/HI 301 - Modern Art and Modernism**

Survey and critical analysis of modernist, theory and criticism.

**Prerequisites & Notes:** A/HI majors: A/HI 275; non-majors: 3 credits A/HI.

Credits: 5

**A/HI 305 - Gallery Workshop**

Emphasis on art preparation/installation methods, and gallery/collections management. Students must commit to registering for this class for fall, winter and spring quarters. Repeatable to 9 credits. Intended as a resume building class. Credits may not be used for the Art History major or minor.

**Prerequisites & Notes:** 6 credits in Art or Art History; instructor permission; meet Western Gallery intern selection criteria.

Credits: 3

**A/HI 306 - Arts Internship**

Internship at museum, educational or public arts organization under the direction of a designated art history faculty member, in consultation with a staff member of the host institution. Intended as a resume building class. Credits may not be used for the art history major or minor. Repeatable to a maximum of 9 credits, including original course.

**Prerequisites & Notes:** 24 credits in Art History and written permission of instructor.

# ART

Credits: 1-4

## **A/HI 308 - Visual Arts in the Community**

A hands-on class designed to give students a practical experience in promotion of visual culture in the community.

**Prerequisites & Notes:** A/HI majors: A/HI 275; non-majors: 3 credits A/HI.  
Credits: 5

## **A/HI 310 - Indigenous Arts of the Pacific Northwest**

Selected topics in the arts of the Pacific Northwest. Includes discussion of contemporary artists.

**Prerequisites & Notes:** A/HI majors: A/HI 275; non-majors: 3 credits A/HI.  
Credits: 5

## **A/HI 313 - Art and Technology**

Critical approaches to the study of artistic practices based on visual technology. Topics may include: photography, film, video, computer-generated art and electronic media.

**Prerequisites & Notes:** A/HI majors: A/HI 275; non-majors: 3 credits A/HI.  
Credits: 5

## **A/HI 315 - Civic Identity in 15th- and 16th-Century Europe**

Civic identity explored through ritual structures, urban society, and lay cultures.

**Prerequisites & Notes:** A/HI majors: A/HI 275; non-majors: 3 credits A/HI.  
Credits: 5

## **A/HI 316 - Land and Landscape**

Studies of landscape and ideology in painting and garden design; issues of environment in the production of visual culture; relationships of land and architecture.

**Prerequisites & Notes:** A/HI majors: A/HI 275; non-majors: 3 credits A/HI.  
Credits: 5

## **A/HI 330 - Art and Texts of the Sacred**

The ideological basis of painting, sculpture and manuscript illumination as tools of communication. The interdependence of textual and visual traditions and their subversion or alteration.

**Prerequisites & Notes:** A/HI majors: A/HI 275; non-majors: 3 credits A/HI.  
Credits: 5

## **A/HI 358 - Postwar Art and Culture**

Examines postwar American culture, from 1950 to 1970, and critically assesses the relationships between art, popular media and the social upheavals of the postwar era.

**Prerequisites & Notes:** A/HI majors: A/HI 275; non-majors: 3 credits A/HI.  
Credits: 5

## **A/HI 360 - Nationalism and Cultural Identity, 19th and 20th Centuries**

Studies in the relationship between ideas of nation and the formation of cultural identity.

**Prerequisites & Notes:** A/HI majors: A/HI 275; non-majors: 3 credits A/HI.  
Credits: 5

## **A/HI 368 - Pacific Arts and Visual Culture**

Art of Melanesia, Polynesia, Micronesia. Includes study of contemporary Pacific arts.

**Prerequisites & Notes:** A/HI majors: A/HI 275; non-majors: 3 credits A/HI.  
Credits: 5

## **A/HI 370 - Islamic Visual Cultures**

Topics addressing historical and contemporary Islamic visual cultures in the Middle East, Africa, and Asia.

**Prerequisites & Notes:** A/HI majors: A/HI 275; non-majors: 3 credits A/HI.  
Credits: 5

## **A/HI 371 - Transforming Traditions: Art and Visual Culture in Japan**

Study of visual cultures in Japan from 5000 BCE to present. Analysis of cultural influx and assimilation from Asia and Europe as well as indigenous and individual visual expressions.

**Prerequisites & Notes:** A/HI majors: A/HI 271 and A/HI 275; Non majors: A/HI 271.  
Credits: 5

### **A/HI 375 - Methods in Art History**

Methodological approaches to the study of Art History and further development of writing skills and visual analysis.

**Prerequisites & Notes:** A/HI 275, art history majors only.  
Credits: 5

### **A/HI 396 - Summer Art History Program in Japan**

Study traditional and contemporary culture in Japan. Activities include: visiting historical sites, galleries, museums and artist studios. Experience a tea ceremony, papermaking, weaving, natural dyeing and more. Students will write a paper following the trip. Offered summer quarter only.

**Prerequisites & Notes:** A/HI 271 or permission of instructor.  
Credits: 7

### **A/HI 401 - Contemporary Issues and Post-Modern Critiques**

Theoretical analysis of late twentieth century postmodernist art and culture, and critical discussion of the expansion of visual media during the contemporary era.

**Prerequisites & Notes:** A/HI major: A/HI 375; Non-major: 5 credits A/HI 300 level or instructor permission.  
Credits: 5

### **A/HI 411 - Contemporary Japanese Visual Culture**

Examines Japanese artistic forms and visual culture from Post-World War II until the present. Explores connections between Japanese socioeconomic and artistic developments, as well as visual manifestations of contemporary Japanese youth culture. Topics include anime, manga, Harajuku fashion and art movements such as Gutai and Superflat.

**Prerequisites & Notes:** Art History Majors: A/HI 271 and A/HI 375; non-majors: A/HI 271 and 5

credits of 300-level in art history or permission of instructor.  
Credits: 5

### **A/HI 413 - Space and Representation**

Theoretical and cultural analysis of the history of representing space within Western art and architecture, from Gothic cathedrals and Renaissance perspective to cubist fractured surfaces and contemporary heterogeneous space.

**Prerequisites & Notes:** Art History majors: A/HI 375; non-majors: 5 credits of 300 level art history or permission of instructor.  
Credits: 5

### **A/HI 415 - Space and the Urban Environment**

Topics in urban organization, urban/rural dynamics, regionalism, spaces and social production in the built environment and the arts.

**Prerequisites & Notes:** Art History majors: A/HI 375; non-majors: 5 credits of 300 level art history or instructor permission.  
Credits: 5

### **A/HI 416 - Borders and Terrains**

Mapping artistic domains; implications of geographic borders; defining places and margins in cultural production.

**Prerequisites & Notes:** Art History majors: A/HI 375; non-majors: 5 credits of 300 level art history or instructor permission.  
Credits: 5

### **A/HI 420 - Building 17th and 18th Century Europe**

Studies or architecture, spatial organization and visual culture in 17th and 18th century Europe, including studies of colonization and contacts with Asia. Each course offering has a selected geographic focus and introduces theory for visual and spatial analysis.

**Prerequisites & Notes:** Art History majors: A/HI 375; non-majors: 5 credits of 300 level art history or instructor permission.  
Credits: 5



**A/HI 429 - Patronage and Power: The Baroque Era**

The relationship of artist and public to the mechanisms of patronage and the art market.

**Prerequisites & Notes:** Art History majors: A/HI 375; non-majors: 5 credits of 300 level art history or instructor permission.  
Credits: 5

**A/HI 430 - Court Art of the Renaissance**

Courtly art in the context of humanism, antiquity, and chivalric society in Renaissance Italy.

**Prerequisites & Notes:** A/HI majors: A/HI 375; Non-majors 5 credits 300 level A/HI or permission of instructor.  
Credits: 5

**A/HI 431 - Popular Culture, Tourism and Leisure**

Studies in topics such as collecting, pilgrimage, touring and acquisition of the authentic.

**Prerequisites & Notes:** Art History majors: A/HI 375; non-majors: 5 credits of 300 level art history or instructor permission.  
Credits: 5

**A/HI 438 - Art and Feminism**

Studies of women artists, their past and present visual practices, and how they engage with cultural representations of gender, sexuality and class.

**Prerequisites & Notes:** Art History majors: A/HI 375; non-majors: 5 credits of 300 level art history or instructor permission.  
Credits: 5

**A/HI 440 - New Media and Digital Art**

Theoretical and critical approaches to the development of cyberspace and its relationship to new media, electronic art, virtual reality, videogames, and biotech art.

**Prerequisites & Notes:** Art History majors: A/HI 375; non-majors: 5 credits of 300 level art history or permission of instructor.  
Credits: 5

**A/HI 450 - Cross-Cultural Representation**

Theoretical analysis of colonialism, neocolonialism, postcolonialism and multiculturalism, and their political, economic and cultural effects on representational practices.

**Prerequisites & Notes:**

Art History majors: A/HI 375; non-majors: 5 credits of 300 level art history, or instructor permission.

Credits: 5

**A/HI 475 - Senior Projects/Practicum**

Final course for art history majors. May be a research project aimed toward the pursuit of an advanced degree or a practicum in one of several careers in arts advocacy, administration, community outreach, and other fields.

**Prerequisites & Notes:** A/HI 375; art history majors only.

Credits: 5

**A/HI 489 - Architecture and Museums**

Examines museum architecture and the exhibition of architecture in museums in Europe and America from the eighteenth century to the present.

**Prerequisites & Notes:** Art History majors: A/HI 375; non-majors: 5 credits of 300 level art history or permission of instructor.

Credits: 5

**A/HI 490 - Seminar: Exhibition Theory and Practice**

Seminar on issues such as the display of visual experience and the configuration of public culture and community identities by artists, institutions and audiences. Repeatable to a maximum of 10 credits, including original course.

**Prerequisites & Notes:** Art History majors: A/HI 375; non-majors: 5 credits of 300 level art history or permission of instructor.

Credits: 5

# Design

"Design" is both noun and verb, product and process. The products of design form the interface between humans and the environment. Design as a professional field of study is based on the foundations of visual communication. The study of design encompasses cultural, aesthetic, ergonomic, technical, ethical, and economic fields. Designers create communications that serve many needs—everything from warning labels to multimedia interfaces. They solve communication problems of all types and sizes. The solutions require creativity, lateral thinking, research, and excellent verbal and written communication skills.

The Department of Design prepares students to successfully communicate information and abstract concepts visually. The faculty strives to provide each student with a broad educational background and preparation in specialization area. The curriculum is designed to promote intellectual rigor, critical thinking and creativity, through a combination of courses that are both theoretical and practical. The theoretical component emphasizes creative problem solving and critical assessment. The practical component focuses on the building of aesthetic and technical skills. The development of these two components culminates in a portfolio of design work. The portfolio also provides evidence of the student's creative and analytical talents, enabling the student to apply his/her scholarship in regional, national, and global communities. Each portfolio is highly personalized allowing the students to exhibit their specific strengths and interests, thus promoting the diversity of perspectives for which our students' portfolios are known in the professional design world. The development of specialized skills in spatial organization, color, visualization, problem solving methodologies, conceptual thinking and the acquisition of digital tool skills, in combination with an excellent liberal arts foundation, provide graduates of the program with the skills necessary for seeking employment as a graphic designer or pursuing graduate studies.

## Design Faculty

**ELSI VASSDAL ELLIS** (1977) Chair and Professor. BS, MEd, Western Washington State College; PhD, University of Washington.

**PAULA S. AIRTH** (2012) Assistant Professor. BA, Western Washington University; MFA, University of Utah.

**CRISTINA de ALMEIDA** (1997) Professor. BFA, Escola Superior de Desenho Industrial, Rio de Janeiro, Brazil; MFA, University of Massachusetts.

**KACEY MORROW** (2008) Assistant Professor, BA, University of Iowa, School of Art and Art History; MFA, University of Illinois, School of Art and Design.

**BRITTANY SCHADE** (2013) Assistant Professor, BFA, Florida Atlantic University; MFA, Florida Atlantic University.

**KENTON D. SMITH** (1993) Professor. BFA, MA, Fort Hays State University; MFA, Kent State University.

## Mission Statement

The Department of Design utilizes a curriculum that emphasizes the process of problem solving to direct students to make connections between culture and design and their role as responsible visual communicators. As a professional field of study, students learn to combine personal expression and critical thinking as they create solutions that connect industry, individuals, and institutions to specific audiences and themselves to the world. Students develop adaptive learning strategies to sustain successful communication careers in a constantly changing world.

## Degrees

The Department of Design offers both Bachelor of Arts and Bachelor of Fine Arts degrees in design. The liberal arts BA degree in design provides students the opportunity to develop visual communication talents through courses in print and digital media design combined with a minor to broaden the educational experience. The BFA degree is the professional degree option providing a fully integrated professional senior year in the

# DESIGN

development of the exit portfolio. The BFA degree requirements also include a summer internship with contracted firms. Admittance to the BFA is through portfolio review during winter quarter.

## Learning Outcomes for Design Majors

1. Demonstrate functional competence with principles of visual organization, visual language and theory as applied to visual communication problems.
2. Understand and apply creative and abstract thinking skills to visual communication problems.
3. Understand, embrace and use current tools, software and technology as a vehicle of effective communication (conceive, design, produce, and create visual forms to successfully communicate ideas, opinions, concepts).
4. Demonstrate facility in visual communication practice, including written and verbal communication skills

The Learning Outcomes identified for the Design Program reflect the expectations of National Association of Schools of Art & Design [NASAD] for accredited professional design programs as well as recommendations by AIGA and an external advisory board.

Formal assessment occurs in concert with strategic planning and catalog revisions. Access to an advisory board provides additional layers of informal review to stimulate positive change. The nature of lab pedagogy results in the constant observation and evaluation of student work (outcomes) by faculty and students. Students are consistently involved in assessment of their learning through reflection, class and self-critique of their work and the work of their peers.

## Advisement and Plan of Study

Upon admission to the major a Plan of Study must be completed under advisement of a student's assigned advisor. Students are expected to meet with their advisors regularly. All Design BA majors are required to declare and complete a minor or the equivalent of a minor of 24 to 30 credits. A second major will also complete the minor requirement. A list of suggested minors will be available through your advisor. Design majors must maintain a minimum 2.5 cumulative GPA.

The junior portfolio review in Design is only for students wishing to earn the BFA degree.

## Declaration Process

Most classes in Design are currently restricted to majors only. To access classes, a formal application to the Department of Design is required. Application for the major is made with a portfolio of work. The portfolio will be reviewed by the Design faculty and evaluated on the basis of a demonstrated understanding of the elements and principles of design and visual communication, technical proficiency and originality. Portfolios are reviewed twice each academic year: October 15 and January 31. Portfolios must be received on or before the deadlines, not postmarked by the deadlines. Incomplete portfolios will not be reviewed. Design majors must complete a plan of study with a department advisor before enrolling in any 200-level course. The plan of study will also include the declaration of a minor as part of the BA degree requirements.

## Application Requirements

All applicants of the Design major must submit a portfolio of 12 works. It is recommended that the portfolio include recent pieces. Work can be in any media and must demonstrate basic visual and design skills.

- Understanding of formal principles
- Technical skills
- Ability to use visual language to communicate ideas
- Originality and risk taking

An accompanying list should briefly describe the rationale behind each piece. Macintosh-compatible CD-ROMs; slides and online portfolios are acceptable. Digital portfolios must be presented in an easily accessible format. It is the applicant's responsibility to ensure proper functioning of the digital media and files.

### Scholarships

The Department of Design offers a limited number of scholarships to recognize individual talents, promise, and meritorious achievement, such as the Babcock scholarship and the Vassdal scholarship. Please consult the scholarship brochure available through Student Financial Resources for information on other scholarships.

## Bachelor of Arts

### Design, BA

Department of Design, College of Fine and Performing Arts

### 62 credits

#### Introduction/What is the Study of Design?

The Department of Design identifies design as the visual communication of ideas. The program utilizes a curriculum that emphasizes the process of problem solving and encourages students to make connections between culture and design, and their role as visual communicators. Students learn to combine personal expression and critical thinking as they create solutions that connect industry to an audience and themselves to the world.

#### Why Consider a Design Major?

Career opportunities are found in all segments of industry, both in the private and public sector. Western Design graduates go on to work in advertising agencies, design firms, in-house departments, paper companies, printing firms, as well as serving as private consultants in corporate identity, environmental graphic design, packaging, publication and web design. They work as Designers, Art Educators, Production Managers, Web Designers and Digital Image Makers.

#### Contact Information

##### Design Department Chair

Elsi Vassdal-Ellis  
Fine Arts 116  
360-650-3660  
Elsi.Vassdal-Ellis@wwu.edu

##### Major Information:

Fine Arts 116  
360-650-3660  
Design@wwu.edu

#### Sample Careers

Graphic Designer | Web Designer | Project Manager | Art Director | Digital Image Maker | Creative Director | Interactive Designer | UX/UI

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

To declare a Design major, application is made with a portfolio of 12 personal works and a typographic hierarchy assignment. The portfolio will be reviewed by Design faculty and evaluated on the basis of a demonstrated understanding of the elements of visual communication, technical proficiency and originality. Application deadlines for the Design major are October 15 and January 31 for current Western students and January 31 for freshmen and transfer students planning to start in the Fall. Portfolios must be received by the deadline, not postmarked by the deadline.

Send portfolio to:  
Design Review Committee  
Western Washington University  
Fine Arts Complex, Room 116

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516 High Street  
Bellingham, WA 98225-9068

## Grade Requirements

Majors must maintain a 2.50 grade point average both overall and in design courses taken at Western. Students falling below the 2.50 average will be placed on probation; failure to bring the cumulative GPA up to 2.50 by the end of two subsequent quarters will result in removal from the major. A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

Students must meet with an advisor before taking 200-level courses to write a formal plan of study that includes identification of a minor.

- DSGN 111 - Design View
- DSGN 211 - Foundations of Visual Communication
- DSGN 220 - Visual Communication I
- DSGN 240 - Visual Communication II
- DSGN 250 - Visual Communication III
- DSGN 260 - Visual Communication IV
- One course from:
  - A/HI 240 - Visual Culture in Western Europe in the 19th Century
  - A/HI 241 - Visual Culture in Western Europe and America in the 20th Century
  - DSGN 312 - Graphic Design in the 20th Century
  - DSGN 330 - Typography I
  - DSGN 340 - Graphic Design: 2D
  - DSGN 341 - Graphic Design: 3D
  - DSGN 350 - Design Production Processes
  - DSGN 351 - Print and Finishing Lab
  - DSGN 360 - Digital Media Design I
  - DSGN 361 - Digital Media Design II
  - DSGN 485 - Professional Practices in Visual Communication Design

### Minor (24-30 credits)

BA majors will complete an official minor comprised of 24 or more credits. Students must meet with an advisor before taking 200-level courses to write a formal plan of study that includes identification of a minor. Students may petition to substitute a self-designed minor, comprised of at least 24 credits. The petition must include a written statement prepared by the student indicating the rationale for the courses selected. Students may substitute a second major or Internet Studies certification for a minor.

## Departmental Honors

In addition to the general requirements for all honors students, design major who wishes to graduate with honors must complete an honors senior project in design.

# Bachelor of Fine Arts

## Design, BFA

Department of Design, College of Fine and Performing Arts

## 115 Credits

### Introduction/What is the Study of Design?

The Bachelor of Fine Arts in Design is the professional degree option for students admitted to the Bachelor of Arts in Design. The BFA degree option is a highly competitive degree limited to a maximum of 18 students per year. Courses in the senior year focus on the integration of graphic, production and digital media design in the solution of visual communication problems.

To earn the BFA students must submit a portfolio of selected work from 200- and 300-level classes.

Application to the BFA in Design is made during winter quarter of the junior year and portfolios are reviewed by the Design faculty. All students must begin their BFA studies in the spring quarter of the junior year to prepare them for the summer-only Internship requirement. The Bachelor of Fine Arts in Design degree requires each student to complete the following program:

### Why Consider a Design Major and a Bachelor of Fine Arts Degree?

Career opportunities are found in all segments of industry, both in the private and public sector. Western Design graduates go on to work in advertising agencies, design firms, in-house departments, web and interactive design firms, paper companies, printing firms, as well as serving as private consultants in corporate identity, environmental graphic design, packaging, user-interface and interactive design, publication and web design. They work as Print, Web, Motion graphics, and Interactive Designers, Design Educators, Project and Production Managers, and Digital Image Makers.

#### Contact Information

##### Design Department Chair

Elsi Vassdal-Ellis  
 Fine Arts 116  
 360-650-3674  
 Elsi.Vassdal-Ellis@wwu.edu

##### Major Information:

Fine Arts 116  
 360-650-3660  
 Design@wwu.edu

#### Sample Careers

Graphic Designer | Art Director | Web Designer | Project Manager | Digital Image Maker | Creative Director | Interactive Designer | UX/UI

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

The BFA degree application is made with a portfolio composed of completed work and/or work in progress from DSGN 330, 340, 351, 360 and 361. The portfolio will be reviewed by Design faculty and evaluated on the basis of a demonstrated understanding of the elements of visual communication, technical proficiency, originality, problem-solving and professionalism. The BFA applications will be reviewed during winter quarter. Deadlines will be posted in the department office and announced in design classes. Portfolios must be received by the announced deadline.

Send application to:

Design BFA Review Committee  
 Western Washington University, Department of Design  
 Fine Arts Complex, Room 116  
 516 High Street  
 Bellingham, WA 98225-9068

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## Grade Requirements

Majors must maintain a 2.50 grade point average both overall and in design courses taken at Western. Students falling below the 2.50 average will be placed on probation; failure to bring the cumulative GPA up to 2.50 by the end of two subsequent quarters will result in removal from the major.

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- DSGN 111 - Design View
- DSGN 211 - Foundations of Visual Communication
- DSGN 220 - Visual Communication I
- DSGN 240 - Visual Communication II
- DSGN 250 - Visual Communication III
- DSGN 260 - Visual Communication IV
- DSGN 312 - Graphic Design in the 20th Century
- DSGN 330 - Typography I
- DSGN 331 - Typography II
- DSGN 340 - Graphic Design: 2D
- DSGN 341 - Graphic Design: 3D
- DSGN 350 - Design Production Processes
- DSGN 351 - Print and Finishing Lab
- DSGN 360 - Digital Media Design I
- DSGN 361 - Digital Media Design II
- DSGN 362 - Digital Media Design III
- DSGN 480 - BFA Seminar
- DSGN 481 - BFA Workshop
- DSGN 485 - Professional Practices in Visual Communication Design
- One of the following:
  - A/HI 240 - Visual Culture in Western Europe in the 19th Century
  - A/HI 241 - Visual Culture in Western Europe and America in the 20th Century
- 10 credits of internship during summer quarter between junior and senior years
- Minimum of 14 credits of declared Minor

## Departmental Honors

In addition to the general requirements for all honors students, a design major who wishes to graduate with honors must complete an honors senior project in design.

## Minor

### **User Experience (UX) Design Minor (see Engineering Technology Department)**

User Experience (UX) Design Minor (see Engineering Technology Department)

## Design Courses

### **DSGN 111 - Design View**

Introduction to design thinking and how design practice affects everyday life in a diversity of cultures (graphic, industrial, architectural). Course will be a mixture of lectures with guest speakers as well as exams and assignments. Lecture format.

Credits: 3

GUR Attributes: HUM

### **DSGN 211 - Foundations of Visual Communication**

Issues and topics related to the development of visual communication/graphic design with emphasis on the development of typographic and print culture.

Credits: 3

GUR Attributes: HUM

### **DSGN 220 - Visual Communication I**

Introduction to and exploration of visual thinking experiences and the translation of ideas into sketches and drawings representing solutions to visual communication problems. Includes studies in graphic ideation, graphic languages, object drawing, orthographic views, perspective, the visualization process and storyboarding.

**Prerequisites & Notes:** Major status.

Credits: 4

### **DSGN 240 - Visual Communication II**

Introduction and exploration of visual literacy elements and principles. Emphasis on how these elements and principles are applied in visual communication problems pertaining to both graphic design and typography. Course will incorporate hands-on projects covering both analog and digital techniques of image and type manipulation. Lecture/lab.

**Prerequisites & Notes:** Major status.

Credits: 4

### **DSGN 249 - Graphic Design Concepts**

Introductory course in layout, design, and software with an emphasis on typography. Course

incorporates hands-on projects covering both analog and digital techniques of image and type manipulation. Lecture/Lab. For non-majors only.

Credits: 4

### **DSGN 250 - Visual Communication III**

Introduction and exploration of the basic principles, processes, and materials of three-dimensional forms. Emphasis on how these elements and principles are applied in visual communication problems and the selection and use of materials with an emphasis on paper. Course will incorporate hands-on projects in 3D visualization and construction. Lecture/lab.

**Prerequisites & Notes:** Major status.

Credits: 4

### **DSGN 260 - Visual Communication IV**

Introduction and exploration of the basic principles of time-based media, integration of design principles and elements, time and sequence, and methods of storytelling. Lecture/lab.

**Prerequisites & Notes:** Major status.

Credits: 4

### **DSGN 312 - Graphic Design in the 20th Century**

History of modern graphic design and illustration.

**Prerequisites & Notes:** DSGN 211 and one from A/HI 240, A/HI 241, A/HI 240A or A/HI 240B.

Credits: 4

### **DSGN 330 - Typography I**

Focus on the use of type as an informative and expressive visual/verbal element in graphic design. Principles and methods of typographic layout will be introduced and expanded upon aiming the development of skills in using type creatively and effectively in specific communication scenarios. Lecture/lab.

**Prerequisites & Notes:** DSGN 111, DSGN 220, DSGN 240, DSGN 250, DSGN 260, major status.



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Credits: 5

## **DSGN 331 - Typography II**

Advanced problems of typographic layout. Focus on the design long textual content, such as books and publications. Emphasis in the use of type as a conceptual tool for both communication and visual expression in a variety of visual/verbal genres. Lecture/lab.

**Prerequisites & Notes:** DSGN 330, BFA status.  
Credits: 5

## **DSGN 340 - Graphic Design: 2D**

Advanced concepts and solutions in graphic design for visual communication problems. Project will utilize previous skills in typography, graphic materials, publications as well as time and motion in building the visual cornerstone of branding. Course will focus on graphic identities, graphical application and methodology for integrating messages and media for a comprehensive approach to visual communication as it's related to visual brands. Lecture and lab.

**Prerequisites & Notes:** DSGN 330.  
Credits: 5

## **DSGN 341 - Graphic Design: 3D**

Concepts and techniques of three-dimensional design with an emphasis on packaging design. Projects will focus on choice of materials, structural forms, and graphic treatment as integrated components of the visual communication strategy. Lecture and lab.

**Prerequisites & Notes:** DSGN 340.  
Credits: 5

## **DSGN 350 - Design Production Processes**

The study of design process for print-based materials with an emphasis on current industry practices. Includes overview of finishing and binding techniques, materials selection and application, and project management.

**Prerequisites & Notes:** DSGN 111, DSGN 220, DSGN 240, DSGN 250, DSGN 260, major status.  
Credits: 3

## **DSGN 351 - Print and Finishing Lab**

A hands-on study of the design process for print-based materials. Emphasizes team-based approaches to problem solving in the production of a bound collaborative analog and digital print edition.

**Prerequisites & Notes:** DSGN 350.  
Credits: 2

## **DSGN 359 - Book Arts Production**

Course in the history, methods and practices of book design, structures and their application in the production of limited edition and unique formats employing letterpress, offset and digital printing techniques. Lecture/lab. Repeatable to a maximum of 15 credits.

**Prerequisites & Notes:** DSGN 250, major status.  
Credits: 5

## **DSGN 360 - Digital Media Design I**

Methods and concepts of designing for an online experience, including a working knowledge of scripting languages, image optimization, file organization, information architecture, and usability.

**Prerequisites & Notes:** DSGN 111, DSGN 220, DSGN 240, DSGN 250, DSGN 260, major status.  
Credits: 5

## **DSGN 361 - Digital Media Design II**

Approaches and concepts in designing for various digital platforms, focusing on user-interface, interactivity, and user-experience.

**Prerequisites & Notes:** DSGN 360.  
Credits: 5

## **DSGN 362 - Digital Media Design III**

Advanced problems in time-based media design. Projects will be more complex and conceptual in nature. Focus is on the investigation of narrative and technical aspects of time-based media, including pre-production, production, and post-production.

**Prerequisites & Notes:** DSGN 361, BFA status.  
Credits: 5

## **DSGN 375 - Summer Design Abroad**

Team taught. Opportunity for students to experience design on an international level. Extensive workshop/field trip format combines lectures by prominent designers, visitations to design firms and international corporations as well as opportunities to attend museums and expositions featuring design. Repeatable to a maximum of 14 cr. Offered summers only.

Credits: 7

### **DSGN 389 - BA Internship**

Faculty supervised fieldwork in design related activities. S/U grading. Repeatable to maximum of 10 credits, including original course.

**Prerequisites & Notes:** Design BA major with Junior status.

Credits: 1-10

Grade Mode: S/U

### **DSGN 480 - BFA Seminar**

Advanced problems in visual communication design (design production, graphic design, interactive/web/motion graphics). Repeatable to 15 credits.

**Prerequisites & Notes:** DSGN 331, DSGN 362, BFA status.

Credits: 5

### **DSGN 481 - BFA Workshop**

Special topics in visual communication design in an intensive workshop format. Repeatable for 6 credits.

**Prerequisites & Notes:** BFA status.

Credits: 2

### **DSGN 485 - Professional Practices in Visual Communication Design**

Currents trends, professional issues and practices. Preparation of a professional portfolio. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** DSGN 330; DSGN 360; DSGN 350; BA or BFA major status.

Credits: 3

### **DSGN 489 - Internship**

Supervised pragmatic work experiences under the direction and supervision of qualified professional practitioners. Taken during summer quarter between junior and senior academic years. S/U grading.

**Prerequisites & Notes:** DSGN 331; DSGN 362. BFA status.

Credits: 10

Grade Mode: S/U

# Music

## Introduction

A music degree from Western is highly regarded in the profession. The music department graduates successful teachers, performers, composers and leaders in all fields of music. The strength of Western's Department of Music is its forty-member music faculty, each of whom is deeply committed to serving music majors in achieving their aspirations.

The Department of Music also encourages and promotes participation from those students whose academic interests lie outside the arts, yet who have the talent and the dedication to succeed in our department. With more than five hundred students participating in our music program, there are opportunities for performance and academic study at many levels of involvement.

Explorations in early, traditional, contemporary, jazz and electronic music exist in the various course activities and degree plans with the emphasis always on dealing directly with the musical art through performance, composition and analysis.

The Department of Music offers one general and five professional undergraduate programs leading to baccalaureate degrees in music. The general program (BA) provides a liberal arts education with music as the major subject. The four professional undergraduate programs (BMus) emphasize the development of proficiency in the major area: music education, performance, history and literature, and composition. The BMus in Music Education has three areas of emphasis: P-12 general music, P-12 instrumental music, and P-12 choral music. State certification to teach is received concurrently with the granting of the degree.

A variety of large and small ensembles and music courses are open to all qualified students of the University, regardless of major. The ensembles include: University Choir, Concert Choir, Symphonic Band, Wind Symphony, University Symphony Orchestra, Jazz Ensembles, Chamber Music (in all instruments and voice), Collegium Musicum, and Opera Theatre. All music ensembles present public programs throughout the year, and several ensembles participate in annual tours. Music courses open to all students in the University include: The Art of Listening to Music, Fundamentals of Music, Pop and Rock Music Survey, Survey of Non-Western Cultures, and the History of Jazz, among others.

### *Advisement (please read carefully)*

The Department of Music provides individual advisement and program planning for all students majoring in music. This takes place during the registration period. The department provides advisement by appointment. Many students prefer to spend a day on campus prior to transfer, at which time they may receive advisement and visit the various departmental performance groups and classes and meet with instructors. Interested students should follow the guidelines set forth in the *Music* section of this catalog prior to contacting the department. Write or phone the Department of Music, Western Washington University, Bellingham, Washington 98225-9107, phone 360-650-3130 or visit the Website, [www.wvu.edu/music/](http://www.wvu.edu/music/).

The department is a full member of the National Association of Schools of Music.

## Faculty

**CHRISTOPHER BIANCO** (2006) Chair and Associate Professor. BME, Northwestern University; MM, University of Montana; DMA, the University of Texas-Austin.

**PATRICIA BOURNE** (2012) Associate Professor. BME, Murray State University; MME, University of Oklahoma; Ed. D, Arizona State University

**ROGER D. BRIGGS** (1989) Professor. BM, Memphis State; MM, PhD, Eastman School of Music.

**GRANT DONNELLAN** (2000) Associate Professor. BM, Oberlin Conservatory; MM, Yale University.

**DAVID FEINGOLD** (1980) Associate Professor. BA, Sarah Lawrence College; MA, Western Washington University.

**TIMOTHY FITZPATRICK** (2006) Associate Professor BM, Western Washington University; MM, University of Texas-Austin; MM, Western Washington University.

**JOHN FRIESEN** (1998) Associate Professor. BMus, University of British Columbia; MMus, Julliard; DMA, University of Southern California.

**JEFFREY GILLIAM** (1992) Professor. BMus, Eastman School of Music; MMus, University of Michigan.

**LESLIE GUELKER-CONE** (1995) Professor. BA, California State University, Stanislaus; MA, San Jose State University; DMA, University of Colorado, Boulder.

**BRUCE HAMILTON** (2002) Associate Professor. BM, MM, DM, Indiana University.

**MILICA JELACA JOVANOVIC** (2004) Associate Professor. BMUS, University of Belgrade; DMA, University of Michigan; MM, Moscow Tchaikovsky Conservatory; PhD, University of Michigan.

**CARLA J. RUTSCHMAN** (1975) Professor. BA, University of Northern Colorado; MM, Arizona State University; PhD, University of Washington.

**WALTER SCHWEDE** (1997) Associate Professor. BM, University of Michigan, MM, Catholic University.

**LESLEY SOMMER** (1997) Associate Dean and Associate Professor. BM, MM, DM, Indiana University.

**BERTIL H. VAN BOER** (1996) Professor. AB, University of California, Berkeley; MA, University of Oregon; PhD, Uppsala University.

**EUGENE S. ZORO** (1969) Professor. BM, MM, Eastman School of Music of the University of Rochester.

#### *Affiliate Music Faculty*

**TESS ALTIVEROS-RITTER**, Voice

**AMBER BONE**, Voice

**EDWARD COOK**, Voice

**GREGORY COX**, Trombone

**VINCE GREEN**, Trumpet

**ERIC KEAN**, Viola

**LISA MCCARTHY**, Flute

**BEN MUSA**, Double Bass

**FRANCINE PETERSON**, Bassoon

**MELISSA PLAGEMANN**, Voice

**RICHARD REED**, Horn

**JAY ROZENDAAL**, Voice

**ARTHUR SHAW**, Conductor, Symphony Orchestra

**DAVID STEEGE**, Keyboard Technician

**ROB TUCKER**, Percussion

**ASTA VAICEKONIS**, Accompanist

**DANIUS VAICEKONIS**, Accompanist

**JENNIFER WEEKS**, Oboe

**KATIE WELD**, Voice

**JILL WHITMAN**, Harp

**JUDITH WIDRIG**, Piano

**FRED WINKLER**, Saxophone

## **Declaration Process**

Due to the sequential nature of the music curriculum, midyear applications are not recommended. Students seeking admission to the program other than fall quarter will be required to meet prerequisites in all course sequences (MUS 101/121 through 224/225; 341 through 343; and 351 through 354) as a condition of admission. All students must also complete the audition to be eligible for music major advising. Contact the music department undergraduate advising office at 360-650-4091 for details.

## **Other Departmental Information**

### *Music Performance*

# MUSIC

All students in Bachelor of Music degree programs must be members of a major performing ensemble each quarter of residence except in those quarters in which music education majors are enrolled in student teaching and those quarters in which piano majors are enrolled in accompanying. The requirement must be met through the student's major instrument or voice as follows: Symphonic Band or Wind Symphony for wind/percussion players, University Choir or Concert Choir for vocalists, and Symphony Orchestra for string players. Pianists and guitarists may elect to participate in any of the major performing ensembles for which they are qualified. Pianists will take a combination of Major Performance Ensemble and Piano Accompanying as follows:

**Performance:** Three quarters of major ensemble, remaining quarters in piano accompanying. **Composition and History/Literature:** six quarters of major ensemble, three quarters of piano accompanying, remaining quarters either major ensemble or piano accompanying. Music **Education:** six quarters of major ensemble, remaining quarters piano accompanying. **Bachelor of Arts in Music** majors will take three quarters of major performance ensemble and three quarters of accompanying.

Guitarists majoring in music performance may, under advisement, substitute up to 12 additional credits in chamber music for this requirement. Performance ensembles may be repeated for credit.

## *Official Attire*

The official attire for all public performances of the University Orchestra, Wind Symphony, Symphonic Band and Concert Choir is as follows: women — long black dress or black dress slacks and black top; men — black tuxedo. The Department of Music requires the student to have this attire available at the beginning of the academic year.

## *Applied Performance Proficiency*

All entering music students will be expected to demonstrate their performance proficiency before a faculty committee to determine their admissibility as music majors. This qualifying audition will be held on announced dates prior to the start of fall, winter and spring quarter classes and on any day school is in session by **prior appointment. Audition deadlines** are as follows:

Fall quarter — June 1

Winter quarter — December 1

Spring quarter — March 1

Freshman and transfer students with marginal qualifications may be placed on **probation** at the beginning of their first quarter of study and will be re-examined at the end of the quarter. A student who fails to have probationary status removed at the end of two consecutive quarters may be removed from pre-major status, continued applied instruction and admissibility to restricted classes. Music minors wishing to include applied instruction as part of the elective credits for the minor must perform an audition in accordance with the listed levels of proficiency. All students receiving applied instruction, with the exception of guitar and piano, must audition for placement in the appropriate major performing ensemble. Applied music may be repeated for credit. Students must complete the audition process in order to be eligible for music major advising. Minimum applied performance proficiency levels required for entrance to private applied music study are as follows. This list of repertoire is intended to characterize acceptable standards for full admittance and entrance to pre-major status, with the permission of the appropriate area coordinator. Please contact the music department adviser at 360-650-4091 for details. However, at the entrance audition, the entering music student may play or sing musical selections other than those listed below.

**Piano** — Baroque, classical, Romantic and contemporary literature of the difficulty of or greater than Bach, "Short Preludes" and "Inventions;" Clementi, Haydn, Mozart and Beethoven "Sonatinas;" Bartok, "Mikrokosmos," Books 3 and 4. Three pieces of different style periods, all from memory. Sight reading required.

**Violin** — Scales, either three or four octaves at a moderato tempo, six to eight notes per bow. Arpeggios, three or four octaves, both études/caprices of Kreutzer, Rode, Fiorillo, Dont (Opus 35), Gavinies, Paganini, Wieniawski (Opus 10) or Ernst. One movement of any solo sonata or partita of J.S. Bach, and either a movement of any of the major concertos, Beethoven, Brahms, Mendelssohn, Saint-Saens, Tchaikovsky, et al,

or a virtuoso work such as *Havanaise — Introduction and Rondo — Capriccioso* of Saint-Saens, *Polonaise-Brilliante* of Wieniawski, *Zapateado* of Sarasate or *Tzigane* by Ravel, et al.

**Viola** — Handel, Purcell or other sonatas; Telemann Concerto in G major or Vivaldi Concerto in E minor. Scales two octaves (major and melodic minor).

**Violoncello** — Major and Minor Scales 3 octaves, Popper (from High School of Cello Playing), Duport or Piatti etude, mvt of a concerto (such as Lalo, Dvorak or Shostakovich) or mvt of a sonata (such as Brahms or Prokofiev) and 2 contrasting mvt of Bach Solo Suites.

**Double Bass** — One étude from Edouard Nanny's "Complete Method Book for Contrabass" Book 1 or solo of candidate's choice. Two contrasting orchestral excerpts (one Mozart) of candidate's choice. Major and minor scales through half, first and second positions.

**Harp** — Two pieces of different style, memorized, such as Handel's Concerto in B-flat, Haydn's *Theme and Variations*, Pescetti's *C Major Sonata*, Pierre's *Impromptu Caprice*, Debussy's *First Arabesque*, selections from *Suite of Eight Dances* by Salzedo. Major and melodic minor scales. Sight reading.

**Flute** — Any Handel sonata (except the E minor Sonata) [select at least one sonata]. Any étude from Anderson Étude Method, opus 41 [select any two of the 18 studies]. Major and minor scales and arpeggios through four sharps and four flats (two octaves when possible).

**Oboe** — Handel *Sonata No. 1*; Any progressive melodic study from Barrett or an étude from Ferling *48 Studies*. Major and minor scales and arpeggios through four sharps and flats (two octaves).

**Clarinet** — Any two études from *Thirty-two Études for Clarinet* by C. Rose, or from *Preliminary Studies for the Accomplished Clarinetist*, Vol. I, by R. Jettel. One solo work comparable in difficulty to the Weber "Concertino" or Hindemith "Sonata." Major and minor scales and arpeggios through four sharps and four flats (two octaves when possible).

**Bassoon** — Three or four selected studies from the Weissenborn Complete Method. Any two studies from the Weissenborn Advanced studies. Mozart "Concerto in B" (second and third movements), or Galliard *Sonatas I and VI* or Phillips *Concertpiece* or Telemann *Sonata in F Minor*, or J. C. Bach "Concerto in B Major" and minor scales and arpeggios through four sharps and four flats (two octaves when possible).

**Saxophone** — Two studies from Ferling "48 Famous Studies," Rubank "Selected Studies," Klose "25 Exercises or Niehaus Jazz Studies." One solo work comparable to Glazounov "Concerto," Ibert "Concertino de Camara," Villa-Lobos "Fantasia," Bozza: "Aria" or Ibert "Aria." Major and minor scales and arpeggios through four sharps and four flats (two octaves or full range).

**French Horn** — Two or three études selected from "Method for French Horn" by Pottag, edited by Hovey. Mozart, *Concerto No. 3* or Saint-Saens *Romance*. Major and minor scales and arpeggios through four sharps and four flats (two octaves when possible).

**Trumpet** — One or two études from "34 Studies" by Brandt, edited by Nagel. Haydn "Concerto" (first and second movements), or Vidal "Concertino" or Thome "Fantasy in E" or Corelli "Sonata VIII," edited by Fitzgerald. Major and minor scales and arpeggios through four sharps and four flats (two octaves when possible).

**Trombone (Tenor and Bass Trombone) and Euphonium** — Two or three studies from "Melodious Études" by Rochut, Book I (bass trombone should play one octave lower where feasible). Studies one through ten of the Blashevich Clef Studies. Five selected studies from the Arban Method, Book 1. Major and minor scales and arpeggios through four sharps and four flats (two octaves when possible).

**Tuba** — Any two of the first four solos in "Solos for the Tuba Player" by Wekselblatt. First ten studies from the "Studies for BB $\flat$  Tuba" by Tyrell. Major and minor scales through four sharps and four flats (two octaves when possible).

**Percussion** — On entering, percussion students should demonstrate proficiency in snare drum, timpani and keyboard percussion and have some experience and ability on drum set and accessory instruments (bass drum, cymbals, tambourine, et cetera.) *Snare Drum*: The 40 Percussive Arts Society snare drum rudiments, a concert and a rudimental style étude or solo. *Timpani*: Demonstrate the ability to tune various intervals and perform an étude or solo using four drums. *Keyboard Percussion (Marimba, Vibraphone, Xylophone)*: Major and minor scales and arpeggios through four sharps and four flats (two octaves), an étude or solo utilizing two and/or four mallet techniques. *Drum Set (optional)*: Demonstrate knowledge of various contemporary styles

# MUSIC

(jazz, rock, Latin) and the ability to maintain a steady pulse. In addition, sight-reading is required in each of the above categories.

**Voice** — Two songs of contrasting style from the classical or folk song repertoire. At least one song in a language other than English is recommended, i.e., Italian, German or French art song or aria. Accompanist provided.

**Classical Guitar** — *Scales*: two octaves, any key (i and m), major and minor; *reading*: easy pieces through fifth position; prepare two contrasting pieces from "Solo Guitar Playing" book 1 (second position or higher) by Noad or "100 Graded Studies" (Noad), studies numbered 5-100 or Royal Conservatory Book 3, 4 or higher.

**Composition Portfolio** — Students interested in pursuing a BMus in composition must schedule an interview with Dr. Roger Briggs, director of composition. Students should schedule their composition interview for the same day they schedule their entrance audition in their major instrument/voice.

## *Academic Progress Policy*

A minimum GPA of 2.5 in music courses is required for graduation with a degree in music. Students must complete the basic music theory sequence (MUS 222, 224) with an average of B- or better to continue on to upper-division theory and history courses. Specific requirements for admission into the various BMus degree programs can be obtained from the appropriate area coordinator or the undergraduate advisor.

## *Aural Skills, and Keyboard Skills Placement Examinations - Transfers*

All students transferring to Western who have completed at least one quarter of college theory, aural skills, or keyboard skills will take, prior to enrollment, a Theory Placement Examination, an Aural Skills Placement Examination, and a Keyboard Skills Examination. These examinations may be taken at Western, or they may be taken and examined at any college or community college (administered by professors at that college) prior to transferring to Western, upon individual request. These examinations are evaluative instruments; the results are advisory only. Students may repeat theory and/or aural skills/keyboard skills courses previously taken elsewhere. All credit received in theory, aural skills, and keyboard skills previously at other institutions will be transferred at the level for which it was earned and may apply toward fulfillment of the requirements for the major in music or in music education.

## *History Placement Examination - Transfers*

Students with upper-division music history credit (300 level or above) must take a history placement examination to determine what history courses remain to be taken.

## *Keyboard Competency*

All students in Bachelor of Music programs will successfully complete a Keyboard Competency Examination. Those students commencing their music theory studies at Western will complete this requirement as part of the two-year music theory and aural skills/keyboard skills sequence.

Students transferring to Western with one or more quarters of music theory, aural skills, or keyboard skills will complete the requirement either by: 1) completing the remaining quarters of the theory and aural skills/keyboard skills sequence; or 2) taking the Keyboard Competency Examination. The appropriate course of action will be determined by the results of the Placement Examinations.

Students in the BMus degree programs will be required to take the Keyboard Competency Examination by the end of the sophomore year or, in the case of transfer students, after three quarters of full-time study.

## *Scholarships*

In addition to general University scholarships, several awards are available from off-campus music organizations through The Western Foundation. Scholarship awards to incoming music majors will be based upon quality of entrance audition. For further information, please call the music adviser, PAC 263, at 360-650-4091 or refer to [www.wvu.edu/music/](http://www.wvu.edu/music/).

*Concert Attendance*

All music majors will register for MUS 99, Concert Attendance (0 credits, S/U grading) each quarter in residence. Programs or ticket stubs from a minimum of eight approved concerts/recitals must be submitted each quarter to receive a satisfactory grade. For further information please call the music adviser at 360-650-4091.

*Program Advisement*

All undergraduate music majors are assigned to the departmental undergraduate program advisor for scheduling and program approval.

*Bachelor of Music*

To complete the Bachelor of Music degree requirements, it may be necessary for the student to take more than the usual 180 credit hours. Students should anticipate that these programs may require more than four years.

## Bachelor of Arts

### Music, BA

Department of Music, College of Fine and Performing Arts

#### 60 Credits

#### Introduction/What is the Study of Music?

The Music BA consists of a basic core of study in Music Theory and History along with private instruction and ensemble performance. The Bachelor of Arts is the liberal arts degree program in music which allows for individual preferences in intensifying studies in certain aspects of music and broadening the scope of academic pursuits.

#### Why Consider a Music Major?

This program is designed for the liberal arts student who may wish to complete minors or an additional major in another field in addition to completing a major in Music. Students in the Music BA program frequently complete studies in such fields as Theatre, Business, Mathematics or one of the languages.

#### Contact Information

##### Department Chair

Christopher Bianco  
Performing Arts 271  
360-650-3404  
Christopher.Bianco@wwu.edu

##### Music Advisor

Julie Hall  
Performing Arts 263  
360-650-4091  
Julie.Hall@wwu.edu

#### Sample Careers

Disc Jockey | Arts Administration Manager | Music Reporter | Recreation Director | Publicist | Music Promoter | Church Music Director | Music Critic

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

**Pre-major:** Available. Auditioned, approved entering freshmen will be declared as Music pre-majors until such time as the appropriate area faculty members approve the intended degree program. At this time the student may formally declare the intended major.



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**Admissions:** The prerequisite for all Music degrees is the entrance audition on the primary instrument/voice.

**Application Deadlines:** The audition must be complete prior to the quarter in which the student intends to enroll. The audition deadline for each fall quarter is the end of the previous May. Due to the sequential nature of the music curriculum, midyear applications are not recommended. Students seeking admission to the program other than fall quarter will be required to meet prerequisites in all course sequences (MUS 121/122 through 225/226; 341 through 343; and 351 through 354) as a condition of admission.

**Advising Tips:** The Department of Music provides individual advisement and program planning for all students majoring in music. This takes place during the registration period and by appointment. Many students prefer to spend a day on campus prior to transfer, at which time they may receive advisement and visit the various departmental performance groups and classes and meet with instructors. Interested students should follow the guidelines set forth in the Music section of this catalog prior to contacting the department. Write or phone the Department of Music, Western Washington University, Bellingham, Washington 98225-9107, phone 360-650-3130 or visit the website, <http://www.wvu.edu/music/>.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- MUS 099 - Concert Attendance Required for every quarter in residence. Minimum 8 concert programs or ticket stubs required.
- MUS 101 - Fundamentals of Music
- MUS 121 - Aural and Keyboard Skills I
- MUS 122 - Theoretical and Analytical Skills I
- MUS 123 - Aural and Keyboard Skills I
- MUS 124 - Theoretical and Analytical Skills I
- MUS 125 - Aural and Keyboard Skills I
- MUS 126 - Theoretical and Analytical Skills I
- MUS 221 - Aural and Keyboard Skills II
- MUS 222 - Theoretical and Analytical Skills II
- MUS 223 - Aural and Keyboard Skills II
- MUS 224 - Theoretical and Analytical Skills II
- MUS 225 - Aural and Keyboard Skills II
- MUS 341 - History of Music to 1600
- MUS 342 - History of Music 1600-1830
- MUS 343 - History of Music 1830-Present
- Nine credits from:
  - MUS 105 - Survey of Popular and Rock Music
  - MUS 205 - Survey of Non-Western Musical Cultures
  - MUS 231 - Elementary Composition
  - MUS 322 - Form and Analysis: Music to 1900
  - MUS 324A - Modal Counterpoint
  - MUS 324B - Tonal Counterpoint
  - MUS 326 - Orchestration/Arranging
  - MUS 328A - Technology for Music Educators
  - MUS 328B - Midi Notation and Sequencing for Composition
  - MUS 331 - Composition
  - MUS 334 - Jazz Improvisation I

- MUS 335 - Jazz Improvisation II
  - MUS 336 - Jazz Improvisation III
  - MUS 422 - Analytical Techniques: 20th-Century Music
  - MUS 431 - Composition
  - MUS 434 - Jazz Arranging I
  - MUS 435 - Jazz Arranging II
  - MUS 436 - Jazz Arranging III
  - MUS 442 - Seminar in Music History
  - MUS 443A - History of Musical Genres: Choral Music
  - MUS 443B - History of Musical Genres: Solo Song
  - MUS 443C - History of Musical Genres: Opera
  - MUS 443D - History of Musical Genres: Keyboard Music
  - MUS 443E - History of Musical Genres: Chamber Music
  - MUS 443F - History of Musical Genres: Symphonic Music
  - MUS 443G - History of Musical Genres: Concerto
  - MUS 443H - History of Musical Genres: Symphonic Music in the 20th Century
  - MUS 443I - History of Musical Genres: Opera I
  - MUS 443J - History of Musical Genres: Opera II
  - Applied music on major instrument or voice: 6 credits minimum. *Additional course credits in applied music instruction beyond the required minimum of 6 may be obtained under the advisement of the appropriate area coordinator.*
  - MUS 212 - Applied Instruction: Piano
  - MUS 213 - Applied Instruction: Strings
  - MUS 214 - Applied Instruction: Winds and Percussion
  - MUS 215 - Applied Instruction: Voice
  - MUS 216 - Applied Instruction: Classical Guitar
  - MUS 312 - Applied Instruction: Piano
  - MUS 313 - Applied Instruction: Strings
  - MUS 314 - Winds and Percussion
  - MUS 315 - Applied Instruction: Voice
  - MUS 316 - Applied Instruction: Classical Guitar
  - MUS 412 - Applied Instruction: Piano
  - MUS 413 - Applied Instruction: Strings
  - MUS 414 - Applied Instruction: Winds and Percussion
  - MUS 415 - Applied Instruction: Voice
  - MUS 416 - Applied Instruction: Classical Guitar
  - Major Ensemble Requirement: 12 credits minimum\*\*
  - MUS 271 - University Choir
  - MUS 272 - Symphonic Band
  - MUS 471 - Concert Choir
  - MUS 472 - Wind Symphony
  - MUS 473 - University Symphony Orchestra
- \*\*Pianists will take three quarters of major performing ensemble and three quarters of Mus 276 and/or 476 (piano accompanying).*

## Bachelor of Music

### Music - Composition Concentration, BMus

Department of Music, College of Fine and Performing Arts

**118-122 credits**

#### Introduction/What is the Study of Music Composition?

Music composition majors learn a variety of skills enabling them to express their musical ideas in an effective manner that allows for performance of their creations. Each student receives private composition instruction along with instruction in basic music theory, music history, conducting, lessons on their major instrument/voice and ensemble performance. While composition instruction will cover all modes, genres and periods, students may elect to concentrate their creativity on one or more specific areas. Instruction will include introduction and advanced courses in the use of computer hardware and software.

The Bachelor of Music (BMus) degree is the professional undergraduate degree program in music. It is an expanded program which requires a student to undertake a course of study of a minimum of 192 undergraduate credits.

#### Why Consider a Concentration Composition in Music Major?

Do you long for the skills to creatively express your musical ideas? Do you want to learn more about the art of composition and the applications of current technology to the creating of music? If you are seriously considering a career as a composer, or if you just want to "learn how to do it right", the Bachelor of Music degree in Composition is the ideal degree for you.

#### Contact Information

##### Department Chair

Christopher Bianco  
Performing Arts 271  
360-650-3404  
Christopher.Bianco@wwu.edu

##### Music Advisor

Julie Hall  
Performing Arts 263  
360-650-4091  
Julie.Hall@wwu.edu

##### Program Coordinator

Dr. Roger Briggs  
Performing Arts 141  
360-650-3868  
Roger.Briggs@wwu.edu

#### Sample Careers

Professional Composer for Orchestras, Choirs or Wind Bands | Music Critic | Composer of Popular Music | Engineer/Mixer

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

**Pre-major:** Available. Auditioned, approved entering freshmen will be declared as Music pre-majors until such time as the appropriate area faculty members approve the intended degree program. At this time the student may formally declare the intended major.

**Admissions:** The prerequisite for all Music degrees is the entrance audition on the primary instrument/voice. Prospective Composition majors must also submit a portfolio of previous work for faculty review. Entrance by compositional accomplishment and interview — student must qualify for upper-division composition courses by junior year

**Application Deadlines:** The audition must be complete prior to the quarter in which the student intends to enroll. The audition deadline for each fall quarter is the end of the previous May. Due to the sequential nature of the music curriculum, midyear applications are not recommended. Students seeking admission to the

program other than fall quarter will be required to meet prerequisites in all course sequences (MUS 121/122 through 225/226; 341 through 343; and 351 through 354) as a condition of admission.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- MUS 099 - Concert Attendance Required for every quarter in residence. Minimum 8 concert programs or ticket stubs required
- MUS 101 - Fundamentals of Music
- MUS 121 - Aural and Keyboard Skills I
- MUS 122 - Theoretical and Analytical Skills I
- MUS 123 - Aural and Keyboard Skills I
- MUS 124 - Theoretical and Analytical Skills I
- MUS 125 - Aural and Keyboard Skills I
- MUS 126 - Theoretical and Analytical Skills I
- MUS 221 - Aural and Keyboard Skills II
- MUS 222 - Theoretical and Analytical Skills II
- MUS 223 - Aural and Keyboard Skills II
- MUS 224 - Theoretical and Analytical Skills II
- MUS 225 - Aural and Keyboard Skills II
- MUS 341 - History of Music to 1600
- MUS 342 - History of Music 1600-1830
- MUS 343 - History of Music 1830-Present
- MUS 352 - Instrumental Conducting
- MUS 353 - Choral Conducting
- Two courses from:
  - MUS 322 - Form and Analysis: Music to 1900
  - MUS 324A - Modal Counterpoint
  - MUS 324B - Tonal Counterpoint
  - MUS 326 - Orchestration/Arranging
  - MUS 328B - Midi Notation and Sequencing for Composition
  - MUS 422 - Analytical Techniques: 20th-Century Music
- One course from:
  - MUS 441 - Notation
  - MUS 442 - Seminar in Music History
  - MUS 443A - History of Musical Genres: Choral Music
  - MUS 443B - History of Musical Genres: Solo Song
  - MUS 443C - History of Musical Genres: Opera
  - MUS 443D - History of Musical Genres: Keyboard Music
  - MUS 443E - History of Musical Genres: Chamber Music
  - MUS 443F - History of Musical Genres: Symphonic Music
  - MUS 443G - History of Musical Genres: Concerto
  - MUS 443H - History of Musical Genres: Symphonic Music in the 20th Century
  - MUS 443I - History of Musical Genres: Opera I
  - MUS 443J - History of Musical Genres: Opera II

## MUSIC

- MUS 444 - Shakespeare and Music  
voice majors must take 443b or 443c
- Three courses from:
  - MUS 275 - Chamber Jazz Ensembles
  - MUS 278 - Opera Workshop
  - MUS 280 - Collegium Musicum
  - MUS 281A - Applied Chamber Music: Flute
  - MUS 281B - Applied Chamber Music: Double Reed
  - MUS 281C - Applied Chamber Music: Single Reed
  - MUS 281F - Applied Chamber Music: High Brass
  - MUS 281H - Applied Chamber Music: Low Brass
  - MUS 281K - Applied Chamber Music: Percussion
  - MUS 281L - Applied Chamber Music: Strings
  - MUS 281M - Applied Chamber Music: Piano
  - MUS 281N - Applied Chamber Music: Guitar
  - MUS 283 - Chamber Vocal Ensembles
  - MUS 284 - Vocal Jazz Ensemble
  - MUS 475 - Chamber Jazz Ensemble
  - MUS 478 - Advanced Opera Production
  - MUS 480 - Advanced Collegium Musicum
  - MUS 481 - Advanced Applied Chamber Music
  - MUS 483 - Advanced Chamber Vocal Ensembles
  - MUS 484 - Advanced Vocal Jazz Ensemble
  - MUS 485 - New Music Ensemble
- One course from:
  - MUS 354A - Choral Conducting
  - MUS 354B - Instrumental Conducting
- One course from:
  - MUS 499 - Senior Recital
  - MUS 490 - Senior Thesis
- 21 credits minimum including at least three credits of 431
  - MUS 231 - Elementary Composition
  - MUS 331 - Composition
  - MUS 431 - Composition
- Applied music on major instrument or voice each quarter in residence (minimum 12 credits); including at least three credits in courses numbered 312-316 or 412-416:
  - MUS 212 - Applied Instruction: Piano
  - MUS 213 - Applied Instruction: Strings
  - MUS 214 - Applied Instruction: Winds and Percussion
  - MUS 215 - Applied Instruction: Voice
  - MUS 216 - Applied Instruction: Classical Guitar
  - MUS 312 - Applied Instruction: Piano
  - MUS 313 - Applied Instruction: Strings
  - MUS 314 - Winds and Percussion
  - MUS 315 - Applied Instruction: Voice
  - MUS 316 - Applied Instruction: Classical Guitar
  - MUS 412 - Applied Instruction: Piano

- MUS 413 - Applied Instruction: Strings
- MUS 414 - Applied Instruction: Winds and Percussion
- MUS 415 - Applied Instruction: Voice
- MUS 416 - Applied Instruction: Classical Guitar
- One course from: (Each quarter in residence minimum 24 credits)\*\*
  - MUS 271 - University Choir
  - MUS 272 - Symphonic Band
  - MUS 471 - Concert Choir
  - MUS 472 - Wind Symphony
  - MUS 473 - University Symphony Orchestra
- Electives: 5 credits selected under advisement

\*\*Piano students will take a combination of major performing ensemble and MUS 276/476 (piano accompanying) as follows: six quarters major performance ensemble, three quarters accompanying, remaining quarters in either piano accompanying or major performance ensemble. Guitar students as follows: six quarters Major Performance Ensemble (MUS 271- or 471); three quarters of Collegium (MUS 280 or 480); and three quarters of Guitar Ensemble (MUS 281N or 481).

## Music - History and Literature Concentration, BMus

Department of Music, College of Fine and Performing Arts

### 116-121 credits

#### Introduction/What is the Study of Music History and Literature?

In addition to core studies in Music Theory and History, students in the Music History and Literature Degree Program pursue in-depth study in a variety of topics related to the history of musical composition. The Bachelor of Music (BMus) degree is the professional undergraduate degree program in music. It is an expanded program which requires a student to undertake a course of study of a minimum of 192 undergraduate credits.

#### Why Consider a Concentration in History and Music Major?

Are you a musician with an avid interest in history? Do you wonder about the historical context in which your favorite work was composed? Do you hold career goals which include college-level teaching or historical research? If so, you may want to consider the Music History & Literature Degree Program.

Contact Information		
<b>Department Chair</b>	<b>Music Advisor</b>	<b>Program Coordinator</b>
Christopher Bianco	Julie Hall	Dr. Edward Rutschman
Performing Arts 271	Performing Arts 263	Performing Arts 147
360-650-3404	360-650-4091	360-650-3889
Christopher.Bianco@wwu.edu	Julie.Hall@wwu.edu	Edward.Rutschman@wwu.edu
Sample Careers		
Musicologist   College Music History Faculty   Music Reporter   Music Librarian   Music Critic   Public Relations Specialist   Music Publishing Specialist   Music Promoter		
Major/Career Resources		
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>		

# MUSIC

## **How to Declare (Admission and Declaration Process):**

**Pre-major:** Available. Auditioned, approved entering freshmen will be declared as Music pre-majors until such time as the appropriate area faculty members approve the intended degree program. At this time the student may formally declare the intended major.

**Admissions:** The prerequisite for all Music degrees is the entrance audition on the primary instrument/voice. Entrance by interview and distinguished accomplishment in musicianship

**Application Deadline:** The audition must be complete prior to the quarter in which the student intends to enroll. The audition deadline for each fall quarter is the end of the previous May. Due to the sequential nature of the music curriculum, midyear applications are not recommended. Students seeking admission to the program other than fall quarter will be required to meet prerequisites in all course sequences (MUS 121/122 through 225/226; 341 through 343; and 351 through 354) as a condition of admission.

## **Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- MUS 099 - Concert Attendance Required for every quarter in residence. Minimum 8 concert programs or ticket stubs required.
- MUS 101 - Fundamentals of Music
- MUS 121 - Aural and Keyboard Skills I
- MUS 122 - Theoretical and Analytical Skills I
- MUS 123 - Aural and Keyboard Skills I
- MUS 124 - Theoretical and Analytical Skills I
- MUS 125 - Aural and Keyboard Skills I
- MUS 126 - Theoretical and Analytical Skills I
- MUS 221 - Aural and Keyboard Skills II
- MUS 222 - Theoretical and Analytical Skills II
- MUS 223 - Aural and Keyboard Skills II
- MUS 224 - Theoretical and Analytical Skills II
- MUS 225 - Aural and Keyboard Skills II
- MUS 341 - History of Music to 1600
- MUS 342 - History of Music 1600-1830
- MUS 343 - History of Music 1830-Present
- MUS 351 - Basic Conducting
- MUS 441 - Notation
- MUS 490 - Senior Thesis
- Two courses from:
  - MUS 322 - Form and Analysis: Music to 1900
  - MUS 324A - Modal Counterpoint
  - MUS 324B - Tonal Counterpoint
  - MUS 326 - Orchestration/Arranging
  - MUS 328B - Midi Notation and Sequencing for Composition
  - MUS 422 - Analytical Techniques: 20th-Century Music
- Two courses from:
  - MUS 275 - Chamber Jazz Ensembles
  - MUS 278 - Opera Workshop

- MUS 281A - Applied Chamber Music: Flute
- MUS 281B - Applied Chamber Music: Double Reed
- MUS 281C - Applied Chamber Music: Single Reed
- MUS 281F - Applied Chamber Music: High Brass
- MUS 281H - Applied Chamber Music: Low Brass
- MUS 281K - Applied Chamber Music: Percussion
- MUS 281L - Applied Chamber Music: Strings
- MUS 281M - Applied Chamber Music: Piano
- MUS 281N - Applied Chamber Music: Guitar
- MUS 283 - Chamber Vocal Ensembles
- MUS 475 - Chamber Jazz Ensemble
- MUS 478 - Advanced Opera Production
- MUS 483 - Advanced Chamber Vocal Ensembles
- MUS 484 - Advanced Vocal Jazz Ensemble
- MUS 485 - New Music Ensemble
- Two courses from:
  - MUS 280 - Collegium Musicum
  - MUS 480 - Advanced Collegium Musicum
- 12 credits from:
  - MUS 442 - Seminar in Music History
  - MUS 443A - History of Musical Genres: Choral Music
  - MUS 443B - History of Musical Genres: Solo Song
  - MUS 443C - History of Musical Genres: Opera
  - MUS 443D - History of Musical Genres: Keyboard Music
  - MUS 443E - History of Musical Genres: Chamber Music
  - MUS 443F - History of Musical Genres: Symphonic Music
  - MUS 443G - History of Musical Genres: Concerto
  - MUS 443H - History of Musical Genres: Symphonic Music in the 20th Century
  - MUS 443I - History of Musical Genres: Opera I
  - MUS 443J - History of Musical Genres: Opera II
- Applied music on major instrument or voice each quarter in residence (minimum 12 credits); including at least three credits in courses numbered 312-316 and 412-416.
  - MUS 212 - Applied Instruction: Piano
  - MUS 213 - Applied Instruction: Strings
  - MUS 214 - Applied Instruction: Winds and Percussion
  - MUS 215 - Applied Instruction: Voice
  - MUS 216 - Applied Instruction: Classical Guitar
  - MUS 312 - Applied Instruction: Piano
  - MUS 313 - Applied Instruction: Strings
  - MUS 314 - Winds and Percussion
  - MUS 315 - Applied Instruction: Voice
  - MUS 316 - Applied Instruction: Classical Guitar
  - MUS 412 - Applied Instruction: Piano
  - MUS 413 - Applied Instruction: Strings
  - MUS 414 - Applied Instruction: Winds and Percussion
  - MUS 415 - Applied Instruction: Voice
  - MUS 416 - Applied Instruction: Classical Guitar



# MUSIC

❑ Foreign Language: Students must complete an examination in French or German.

❑ One course from: (Each quarter in residence minimum 24 credits)\*\*\*

- MUS 271 - University Choir
- MUS 272 - Symphonic Band
- MUS 471 - Concert Choir
- MUS 472 - Wind Symphony
- MUS 473 - University Symphony Orchestra

\*\*\*Piano students will take a combination of major performing ensemble and MUS 276/476 (piano accompanying) as follows: six quarters major performance ensemble, three quarters accompanying, remaining quarters in either piano accompanying or major performance ensemble. Guitar students as follows: six quarters Major Performance Ensemble (MUS 271- or 471); three quarters of Collegium (MUS 280 or 480); and three quarters of Guitar Ensemble (MUS 281N or 481).

❑ Electives: 14 credits selected under advisement

## Music - Performance Concentration, BMus

Department of Music, College of Fine and Performing Arts

### 117-122 credits

#### Introduction/What is the Study of Music Performance?

In addition to a core set of courses in Music Theory and History, students in the performance degree program will receive comprehensive instruction on their Primary Instrument/Voice.

The Bachelor of Music (BMus) degree is the professional undergraduate degree program in music. It is an expanded program which requires a student to undertake a course of study of a minimum of 192 undergraduate credits.

#### Why Consider a Concentration in Music Performance Major?

If your ultimate career goal is to be a performer in a professional orchestra or opera company or if you aspire to teach private lessons at the college level, the Bachelor of Music in Performance is the degree program for you.

Contact Information			
<b>Music Advisor</b> Julie Hall Performing Arts 263 360-650-4091 Julie.Hall@wwu.edu	<b>Piano Coordinator</b> Milica Jelaca Jovanovic Performing Arts 17 milica.jelacajovanovic@wwu.edu	<b>String Coordinator</b> Walter Schwede Performing Arts 139 Walter.Schwede@wwu.edu	<b>Woodwind Coordinator</b> Eugene Zoro Performing Arts 145 Gene.Zoro@wwu.edu
<b>Brass/Percussion Coordinator</b> Dr. Christopher Bianco Performing Arts 271 Christopher.Bianco@wwu.edu	<b>Vocal Coordinator</b> Dr. Leslie Guelker-Cone Performing Arts 043 Leslie.Guelker-Cone@wwu.edu	<b>Guitar Coordinator</b> David Feingold Performing Arts 271 David.Feingold@wwu.edu	
Sample Careers			
University/College Professor   Studio Musician   Orchestra Musician   Arts Administrator/Manager   Member of Professional Opera   Church Music Director   Voice/Instrument Teacher			
Major/Career Resources			
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>			

### Admission and Declaration Process

**Pre-major:** Available. Auditioned, approved entering freshmen will be declared as Music pre-majors until the student has passed a performance level jury. At this time the student may formally declare the Performance Major.

**Admissions:** The prerequisite for all Music degrees is the entrance audition on the primary instrument/voice. Entrance by performance audition — student must expect to achieve upper-division applied instruction by the sophomore year

**Application Deadline:** The audition must be complete prior to the quarter in which the student intends to enroll. The audition deadline for each fall quarter is the end of the previous May. Due to the sequential nature of the music curriculum, midyear applications are not recommended. Students seeking admission to the program other than fall quarter will be required to meet prerequisites in all course sequences (MUS 121/122 through 225/226; 341 through 343; and 351 through 354) as a condition of admission.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- MUS 099 - Concert Attendance Required for every quarter in residence. Minimum 8 concert programs or ticket stubs required
- MUS 101 - Fundamentals of Music
- MUS 121 - Aural and Keyboard Skills I
- MUS 122 - Theoretical and Analytical Skills I
- MUS 123 - Aural and Keyboard Skills I
- MUS 124 - Theoretical and Analytical Skills I
- MUS 125 - Aural and Keyboard Skills I
- MUS 126 - Theoretical and Analytical Skills I
- MUS 221 - Aural and Keyboard Skills II
- MUS 222 - Theoretical and Analytical Skills II
- MUS 223 - Aural and Keyboard Skills II
- MUS 224 - Theoretical and Analytical Skills II
- MUS 225 - Aural and Keyboard Skills II
- MUS 341 - History of Music to 1600
- MUS 342 - History of Music 1600-1830
- MUS 343 - History of Music 1830-Present
- MUS 351 - Basic Conducting
- MUS 499 - Senior Recital
- One course from:
  - MUS 441 - Notation
  - MUS 442 - Seminar in Music History
  - MUS 443A - History of Musical Genres: Choral Music
  - MUS 443B - History of Musical Genres: Solo Song
  - MUS 443C - History of Musical Genres: Opera
  - MUS 443D - History of Musical Genres: Keyboard Music
  - MUS 443E - History of Musical Genres: Chamber Music
  - MUS 443F - History of Musical Genres: Symphonic Music
  - MUS 443G - History of Musical Genres: Concerto
  - MUS 443H - History of Musical Genres: Symphonic Music in the 20th Century

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- MUS 443I - History of Musical Genres: Opera I
  - MUS 443J - History of Musical Genres: Opera II
  - MUS 444 - Shakespeare and Music
- voice majors must take voice majors must take 443b or 443c
- Two courses from:
    - MUS 322 - Form and Analysis: Music to 1900
    - MUS 324A - Modal Counterpoint
    - MUS 324B - Tonal Counterpoint
    - MUS 326 - Orchestration/Arranging
    - MUS 328B - Midi Notation and Sequencing for Composition
    - MUS 422 - Analytical Techniques: 20th-Century Music
  - Four courses from:
    - MUS 275 - Chamber Jazz Ensembles
    - MUS 278 - Opera Workshop
    - MUS 280 - Collegium Musicum
    - MUS 281A - Applied Chamber Music: Flute
    - MUS 281B - Applied Chamber Music: Double Reed
    - MUS 281C - Applied Chamber Music: Single Reed
    - MUS 281F - Applied Chamber Music: High Brass
    - MUS 281H - Applied Chamber Music: Low Brass
    - MUS 281K - Applied Chamber Music: Percussion
    - MUS 281L - Applied Chamber Music: Strings
    - MUS 281M - Applied Chamber Music: Piano
    - MUS 281N - Applied Chamber Music: Guitar
    - MUS 283 - Chamber Vocal Ensembles
    - MUS 284 - Vocal Jazz Ensemble
    - MUS 475 - Chamber Jazz Ensemble
    - MUS 478 - Advanced Opera Production
    - MUS 480 - Advanced Collegium Musicum
    - MUS 481 - Advanced Applied Chamber Music
    - MUS 483 - Advanced Chamber Vocal Ensembles
    - MUS 484 - Advanced Vocal Jazz Ensemble
    - MUS 485 - New Music Ensemble
  - Applied music on major instrument or voice each quarter in residence, including at least three credits from 412-416: (minimum 30 credits)
    - MUS 212 - Applied Instruction: Piano
    - MUS 213 - Applied Instruction: Strings
    - MUS 214 - Applied Instruction: Winds and Percussion
    - MUS 215 - Applied Instruction: Voice
    - MUS 216 - Applied Instruction: Classical Guitar
    - MUS 312 - Applied Instruction: Piano
    - MUS 313 - Applied Instruction: Strings
    - MUS 314 - Winds and Percussion
    - MUS 315 - Applied Instruction: Voice
    - MUS 316 - Applied Instruction: Classical Guitar
    - MUS 412 - Applied Instruction: Piano
    - MUS 413 - Applied Instruction: Strings

- MUS 414 - Applied Instruction: Winds and Percussion
  - MUS 415 - Applied Instruction: Voice
  - MUS 416 - Applied Instruction: Classical Guitar
    - Entrance by performance audition—student must expect to achieve upper-division applied instruction by the sophomore year.
    - Advanced Applied Pedagogy (minimum 4 credits):
      - MUS 466 - Applied Music Pedagogy
      - MUS 466A - Applied Music Pedagogy: Piano
      - MUS 466B - Applied Music Pedagogy: Voice
    - Junior Recital (required performance; prerequisite for Senior Recital; not a course; schedule with approval of Applied Instructor; see Music Advisor).
    - One course from: (Each quarter in residence minimum 24 credits)\*\*
      - MUS 271 - University Choir
      - MUS 272 - Symphonic Band
      - MUS 471 - Concert Choir
      - MUS 472 - Wind Symphony
      - MUS 473 - University Symphony Orchestra
    - Electives: 8 credits minimum selected under advisement. Piano student must take Applied Music Literature – MUS 467 (6 credits minimum). Voice students will take Voice Studies – MUS 166A & 166B (5 credits), and Vocal Diction – MUS 366A, 366B, and 366C (3 credits). Guitar students must take Fretboard Harmony – MUS 367 (minimum 1 credit), and Guitar History & Repertory – MUS 468A and 468B (4 credits minimum).
- \*\*Piano students will take a combination of major performing ensemble and MUS 276/476 (piano accompanying) as follows: three quarters major performing ensemble, remaining quarters piano accompanying. Guitar students as follows: six quarters Major Performance Ensemble (MUS 271-or 471); three quarters of Collegium (MUS 280 or 480); and three quarters of Guitar ensemble (MUS 281N or 481).*

## Music Education P-12, BMus

Department of Music, College of Fine and Performing Arts

### 158-164 credits minimum\*

#### Introduction/What is the Study of Music Education P-12?

The Music Education Degree Program is comprised of a comprehensive course of study in basic Music Theory, Music History, Conducting, and Music Education methods courses which lead to K-12 Certification as a Music Specialist.

The Music P-12 major must be accompanied by the Secondary Education Professional Program offered through Woodring College of Education.

#### Why Consider a Music Education P-12 Major?

If your goal is to direct a band, orchestra or choir, or to teach general music in a school system in the State of Washington, the Bachelor of Music in Music Education is the degree program for you.

A Music degree from Western Washington University is highly regarded in the profession. Western graduates successful teachers, performers, composers and leaders in all fields of music. The strength of Western's Department of Music is our forty-member Music faculty, each of whom is deeply committed to serving Music majors in achieving their aspirations.

# MUSIC

## Music Advisor

Julie Hall  
Performing Arts 263  
360-650-4091  
Julie.Hall@wwu.edu

## Secondary Education website

<http://www.wce.wwu.edu/Depts/SEC>

## Program Coordinator

Patricia Bourne  
Performing Arts 39  
360-650-2217  
Patty.Bourne@wwu.edu

## Secondary Education Program Manager

Janna Cecka  
Miller Hall 401C  
360-650-3327  
Janna.Cecka@wwu.edu

## Choral Music Education

Tim Fitzpatrick  
Performing Arts 39  
360-650-7290  
Timothy.Fitzpatrick@wwu.edu

## Secondary Education Program Coordinator

Debbie Gramm  
Miller Hall 401A  
360-650-3327  
Debbie.Gramm@wwu.edu

### Sample Careers

Secondary School Choir Director | Secondary School Band Director | Secondary School Orchestra Director

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

**Pre-major:** Available. Auditioned, approved entering freshmen will be declared as Music pre-majors until such time as the appropriate area faculty members approve the intended degree program. At this time the student may formally declare the intended major.

**Admissions:** The prerequisite for all Music degrees is the entrance audition on the primary instrument/voice.

**Application Deadlines:** The audition must be complete prior to the quarter in which the student intends to enroll. The audition deadline for each fall quarter is the end of the previous May. Due to the sequential nature of the music curriculum, midyear applications are not recommended. Students seeking admission to the program other than fall quarter will be required to meet prerequisites in all course sequences (MUS 121/122 through 225/226; 341 through 343; and 351 through 354) as a condition of admission.

**\*Includes Woodring College Secondary Education Requirements:** 54 credits minimum including internship (SEC 410, 411, 425, 431, 495; SEC 301, 302, 310; and SPED 363). The Bachelor of Music Education major must be accompanied by the professional preparation program in secondary education. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

*Music education majors should consult Teacher Education Admissions, Miller Hall 150, for information concerning the College of Education professional courses and admission to the Secondary Education program.*

## Grade Requirements

A grade of C (2.0) or better is required for courses in the secondary education professional program and all courses required for the endorsement.

### Requirements

- MUS 099 - Concert Attendance  
Required for every quarter in residence. Minimum 8 concert programs or ticket stubs required.
- MUS 101 - Fundamentals of Music
- MUS 121 - Aural and Keyboard Skills I
- MUS 122 - Theoretical and Analytical Skills I
- MUS 123 - Aural and Keyboard Skills I
- MUS 124 - Theoretical and Analytical Skills I
- MUS 125 - Aural and Keyboard Skills I
- MUS 126 - Theoretical and Analytical Skills I
- MUS 221 - Aural and Keyboard Skills II

- MUS 222 - Theoretical and Analytical Skills II
- MUS 223 - Aural and Keyboard Skills II
- MUS 224 - Theoretical and Analytical Skills II
- MUS 225 - Aural and Keyboard Skills II
- MUS 268 - Introduction to Music Education
- MUS 328A - Technology for Music Educators
- MUS 341 - History of Music to 1600
- MUS 342 - History of Music 1600-1830
- MUS 343 - History of Music 1830-Present
- MUS 352 - Instrumental Conducting
- MUS 353 - Choral Conducting
- MUS 362 - General Music Education
- MUS 469 - Music Teaching Practicum II (must be taken twice)
- One course from:
  - MUS 354A - Choral Conducting
  - MUS 354B - Instrumental Conducting
- 5-8 credits from:
  - MUS 263 - Vocal Pedagogy
  - MUS 264L - Pedagogy/lab: Woodwinds I
  - MUS 264M - Pedagogy/lab: Woodwinds II
  - MUS 264N - Pedagogy/Lab: Brass I
  - MUS 264O - Pedagogy/Lab: Brass II
  - MUS 264P - Pedagogy/Lab: Percussion
  - MUS 265C - Pedagogy/Lab: Strings I
  - MUS 265D - Pedagogy/Lab: Strings II
- One course from: (Each quarter in residence minimum 24 credits)\*\*
  - MUS 271 - University Choir
  - MUS 272 - Symphonic Band
  - MUS 471 - Concert Choir
  - MUS 472 - Wind Symphony
  - MUS 473 - University Symphony Orchestra

*\*\*Piano students will take six quarters of major performing ensemble and six quarters of MUS 276 and/or 476 (piano accompanying). Guitar students as follows: six quarters major performance ensemble (MUS 271 or 471), three quarters of Collegium (MUS 280 or 480) and three quarters Guitar Ensemble (MUS 281N or 481).*

- Applied music on major instrument or voice each quarter in residence (minimum 12 credits); including at least three credits in courses numbered 312-316 or 412-416:
  - MUS 212 - Applied Instruction: Piano
  - MUS 213 - Applied Instruction: Strings
  - MUS 214 - Applied Instruction: Winds and Percussion
  - MUS 215 - Applied Instruction: Voice
  - MUS 216 - Applied Instruction: Classical Guitar
  - MUS 312 - Applied Instruction: Piano
  - MUS 313 - Applied Instruction: Strings
  - MUS 314 - Winds and Percussion
  - MUS 315 - Applied Instruction: Voice
  - MUS 316 - Applied Instruction: Classical Guitar

## MUSIC

- MUS 412 - Applied Instruction: Piano
- MUS 413 - Applied Instruction: Strings
- MUS 414 - Applied Instruction: Winds and Percussion
- MUS 415 - Applied Instruction: Voice
- MUS 416 - Applied Instruction: Classical Guitar

□ One of the following Emphasis Areas:

**P-12 General Music Emphasis (9 credits) This emphasis leads to an endorsement in general music.**

MUS 271 - University Choir

- MUS 461 - Advanced Techniques in General Music Education  
Electives: 4 credits selected under advisement. In lieu of elective credits, piano students will take 4 credits of MUS 466.

**P-12 Choral Music Emphasis (10 credits) This emphasis leads to an endorsement in choral music.**

- MUS 166A - Introduction to Voice Studies A
- MUS 463 - Secondary Choral Music Education

Electives: 4 credits selected under advisement. In lieu of elective credits, piano students will take 4 credits of MUS 466.

**P-12 Instrumental Music Emphasis (11-12 credits) This emphasis leads to an endorsement in instrumental music.**

MUS 271 - University Choir

- MUS 462 - Band Music Education
- MUS 464 - Orchestral Music Education

Electives: 3-4 credits selected under advisement. In lieu of elective credits, piano students will take four credits of MUS 466; in lieu of elective credits guitar students will take 2 credits of Introduction to Guitar Repertory – MUS 468A or MUS 468B; and 1 credit of Fretboard Harmony – MUS 367.

## Master of Music

### Music, Thesis, MMus

*College of Fine and Performing Arts*

### Graduate Faculty

**Bianco, Christopher**, DMA, wind, ensemble, conducting.

**Briggs, Roger D.**, PhD, composition, orchestra.

**Donnellan, Grant**, MMus, violin.

**Feingold, David**, MMus, guitar, Chair.

**Friesen, John**, DMA, cello, chamber music.

**Gilliam, Jeffrey**, MMus, piano, piano accompanying.

**Guelker-Cone, Leslie**, DMA, choral music, conducting.

**Hamilton, Bruce**, DMus, composition, theory/analysis, electro-acoustic music.

**Jelaca-Jovanovic, Milica**, DMA, piano, piano literature, piano pedagogy.

**Rutschman, Carla**, PhD, low brass, musicology, brass pedagogy.

**Rutschman, Edward R.**, PhD, musicology, graduate program advisor, theory/ analysis, counterpoint.

**Schwede, Walter**, MMus, violin, chamber music.

**Sommer, Lesley**, DM, composition, theory/analysis.

**Van Boer, Bertil H.**, PhD, musicology.

**Zoro, Eugene S.**, MMus, clarinet, woodwind pedagogy, chamber music.

Program Advisor: Dr. Bertil Van Boer, Performing Arts Center 147, (360) 650-2282.

## Introduction

The Master of Music degree consists of a core of courses which serve as a common foundation and a set of more specialized courses in one of five concentrations: composition, music history and literature, performance, conducting and music education. The degree may be used as a preparation for doctoral studies in music, or it may serve as a terminal degree. Minimum credits for each concentration is 45.

The *composition concentration* includes course work in composition, music history, and music theory as well as a thesis (original composition). Ensembles, studio instruction, and course work in conducting are also available.

The *music history and literature concentration* includes seminars in music history, work in notation, courses in music theory, performance with the Collegium Musicum, and a written thesis.

The *performance concentration* includes vocal or instrumental studio instruction, work with small and large ensembles, a recital to satisfy the thesis requirement, and course work in music history and music theory. Pianists may emphasize solo performance or accompanying. Studies in jazz areas are available.

The *conducting concentration* includes course work in conducting, music history, and music theory, and a conducting practicum to fulfill the thesis requirement. Ensembles and studio instruction are also available.

The *music education concentration* includes courses in music education, music history and music theory courses in the College of Education or the Department of Psychology. Ensembles and studio instruction are also available. The thesis can be a written project, a recital or a conducting practicum.

## Goals

To prepare students for professional-level work in music, as performers (singers, instrumentalists or conductors), composers, scholars, educators, or in a combination of these areas.

### *Prerequisites and Examinations*

*Prerequisite for admission to the MMus program is a BMus degree or its equivalent.*

Students in the *Composition* concentration must submit at least three original compositions for evaluation.

Students in the *Performance* concentration must audition before a faculty committee or submit tape recorded performance for evaluation. Vocal performers must demonstrate competence in German, French and Italian diction.

Students in the *History and Literature* concentration must demonstrate strength in that area by interview with appropriate faculty members. Applicants must demonstrate reading ability in French or German.

Students in the *Conducting* concentration must demonstrate ability and experience in conducting by interview with appropriate faculty members. In addition, they must prepare a curricular proposal for approval by an appropriate faculty committee. Choral conductors must demonstrate competence in vocal pedagogy and in German, French, Italian, and Latin diction.

Students in the *Music Education* concentration must prepare a curricular proposal for approval by an appropriate faculty committee, subject to final approval by the department.

*Placement examinations* in music theory and music history must be taken prior to beginning the program. Courses necessary to remove deficiencies are not credited toward the degree.

*The Graduate Record Examination.* The General Test is required. Scores should be sent to the WWU Graduate School along with other application materials.

### Basic Requirements for All Concentrations (minimum 45 credits)

- MUS 541 - History/Analysis: Music to 1600 (4)
- MUS 542 - History/Analysis: Music from 1600-1830 (4)
- MUS 543 - History/Analysis: Music from 1830-Present (4)



# MUSIC

- MUS 503 - Introduction to Graduate Study of Music (4)
- MUS 532 - Analytical Techniques: 20th-Century Musical Practices (3)
- MUS 533 - Analytical Techniques: 19th-Century Musical Styles and Practices (3)
- MUS 690 - Thesis (6)

All students admitted to graduate study must register for at least one course in the area of basic requirements during each quarter of enrollment until those requirements are fulfilled.

Candidates for the Master of Music degree must successfully complete a final written exam based on course work for the M.Mus. degree.

## Requirements and Electives for Each Concentration

### Composition Concentration

- MUS 534 - Composition (12)
- Electives (5)

### History and Literature Concentration

- MUS 538 - Notation
- MUS 539 - History of Musical Genres
- MUS 580 - Advanced Collegium Musicum
- MUS 550 - Seminar in the History of Music (3)

### Performance Concentration

- One course from:
  - MUS 574 - Jazz Ensembles
  - MUS 575 - Chamber Jazz Ensembles
  - MUS 578 - Opera Production
  - MUS 580 - Advanced Collegium Musicum
  - MUS 581 - Applied Chamber Music
  - MUS 583 - Chamber Vocal Ensemblesor any approved 400-level or 500-level course(s)
- 9 credits from:
  - MUS 511 - Individual Instruction: Advanced Organ
  - MUS 512 - Individual Instruction: Advanced Piano
  - MUS 513 - Individual Instruction: Advanced Strings
  - MUS 514 - Individual Instruction: Advanced Orchestral Winds and Percussion
  - MUS 515 - Individual Instruction: Advanced Voice
  - MUS 518 - Individual Instruction: Applied Jazz
  - MUS 576 - Accompanying

- Electives (2)

### Conducting Concentration (Choral Conducting, Orchestral Conducting, Band Conducting)

- Conducting Studies (9-17)
  - MUS 501 - Instrumental Conducting and Rehearsal Techniques
  - MUS 502 - Choral Conducting and Literature
  - MUS 519 - Individual Instruction - Advanced Applied Conducting approved 400-level and/or 500-level course(s)
- Basic Musicianship (0-9) Courses to be selected from the following (any not selected under Basic Requirements):
  - MUS 541 - History/Analysis: Music to 1600

- MUS 542 - History/Analysis: Music from 1600-1830
- MUS 543 - History/Analysis: Music from 1830-Present
- MUS 550 - Seminar in the History of Music
- MUS 531 - Arranging
- MUS 534 - Composition  
and approved 400-level and/or 500-level course(s)
- Applied Music (0-9)
  - MUS 511 - Individual Instruction: Advanced Organ
  - MUS 512 - Individual Instruction: Advanced Piano
  - MUS 513 - Individual Instruction: Advanced Strings
  - MUS 514 - Individual Instruction: Advanced Orchestral Winds and Percussion
  - MUS 515 - Individual Instruction: Advanced Voice
  - MUS 518 - Individual Instruction: Applied Jazz  
and/or approved 411-418 course(s)
- Ensemble (0-9)  
Approved 400-level and/or 500-level ensemble course(s)

### **Music Education Concentration (Instrumental Music Supervision, Choral Music Supervision, Choral Conducting, Orchestral Conducting, Band Conducting)**

This program is not currently accepting new students. For further information, contact the Graduate School, Western Washington University, 516 High Street, Bellingham, WA 98225-9037, 360-650-3170, [gradschool@wwu.edu](mailto:gradschool@wwu.edu).

- Professional Understandings/Techniques (6-9)  
Courses to be selected from the following:
  - MUS 501 - Instrumental Conducting and Rehearsal Techniques
  - MUS 502 - Choral Conducting and Literature
  - MUS 525 - Brass and Percussion Techniques and Materials  
or any approved 400-level or 500-level course(s)
- Basic Musicianship (3-9)  
Courses to be selected from the following: (any not elected under Basic Requirements)
  - MUS 531 - Arranging
  - MUS 534 - Composition
  - MUS 541 - History/Analysis: Music to 1600
  - MUS 542 - History/Analysis: Music from 1600-1830
  - MUS 543 - History/Analysis: Music from 1830-Present
  - MUS 550 - Seminar in the History of Music  
or any approved 400-level or 500-level course(s)
- Applied Music (0-9)
  - MUS 511 - Individual Instruction: Advanced Organ
  - MUS 512 - Individual Instruction: Advanced Piano
  - MUS 513 - Individual Instruction: Advanced Strings
  - MUS 514 - Individual Instruction: Advanced Orchestral Winds and Percussion
  - MUS 515 - Individual Instruction: Advanced Voice
  - MUS 518 - Individual Instruction: Applied Jazz  
or approved 411-418
- Ensemble (0-9)  
Approved 400-level or 500-level ensemble course(s)

# MUSIC

- Guided electives in professional education in education or psychology (3-9)

## Minor

### Music Minor

Department of Music, College of Fine and Performing Arts

**30 credits**

#### Introduction/What is the Study of Music?

#### Why Consider a Music Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Admission to Program

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- MUS 101 - Fundamentals of Music
- MUS 121 - Aural and Keyboard Skills I
- MUS 122 - Theoretical and Analytical Skills I
- MUS 123 - Aural and Keyboard Skills I
- MUS 124 - Theoretical and Analytical Skills I
- MUS 125 - Aural and Keyboard Skills I
- One course from:
  - MUS 104 - The Art of Listening to Music
  - MUS 105 - Survey of Popular and Rock Music
- One course from:
  - MUS 202 - Jazz: Genesis and Evolution
  - MUS 205 - Survey of Non-Western Musical Cultures
- 12 credits selected under advisement

## Music Courses

### MUS 099 - Concert Attendance

All music pre-majors and majors are required to attend a minimum of eight approved concerts

and/or recitals each quarter in residence. S/U grading.

Credits: 0

Grade Mode: S/U

### **MUS 100 - Marrowstone Music Festival**

A combined theory, composition, and music literature class keyed to the works students will perform during the Marrowstone Music Festival. Students will gain insight into these works and have the opportunity to develop their own compositional skills. S/U grading.

**Prerequisites & Notes:** concurrent participation/enrollment in Marrowstone Music Festival

Credits: 1

### **MUS 101 - Fundamentals of Music**

Open to all students. The study of musical construction for those unfamiliar with the fundamentals of notation (pitch and rhythm), major and minor scales, intervals, triads and keys, with particular attention to their practical application.

Credits: 3

### **MUS 102 - Introduction to Music Theory and Ear Training**

Courses designed to strengthen the prospective music major's knowledge of fundamental theoretical principles and to introduce the basic aural/reading skills needed to begin the musicianship sequence.

**Prerequisites & Notes:** MUS 101 or instructor permission

Credits: 3

### **MUS 103 - Introduction to Music Theory and Ear Training**

Courses designed to strengthen the prospective music major's knowledge of fundamental theoretical principles and to introduce the basic aural/reading skills needed to begin the musicianship sequence.

**Prerequisites & Notes:** MUS 102

Credits: 3

### **MUS 104 - The Art of Listening to Music**

Open to all students. Non-technical basis for enjoyable listening to music; performance practices relating to symphony orchestras, instrumental ensembles, opera, choral groups and solo performance.

Credits: 3

GUR Attributes: HUM

### **MUS 105 - Survey of Popular and Rock Music**

Open to all students. An introduction to the genres, forms and composers of popular music within the framework of a study of its historical and cultural context.

Credits: 3

GUR Attributes: HUM

### **MUS 116 - Guitar Technologies: Guitar for Beginners**

This course serves as an introduction to the guitar. Techniques include both basics of plectrum and finger-style technique. Also covered are chords, strumming and finger-style applications for arpeggio playing, leading to basic accompaniment. S/U grading.

Credits: 2

Grade Mode: S/U

### **MUS 121 - Aural and Keyboard Skills I**

The development of aural competence in and visual familiarity with the sounds and symbols of the diatonic major and minor system. Exercises and drill in prepared and sight reading, dictation, error detection, accuracy of rhythm and intonation. S/U grading.

**Prerequisites & Notes:** Music major

Credits: 1

Grade Mode: S/U

### **MUS 122 - Theoretical and Analytical Skills I**

Study of and practical experience in using the basic materials of musical construction including notation, melody, harmony, rhythm and form.

**Prerequisites & Notes:** MUS 101 or equivalent;

# MUSIC

music major  
Credits: 3

## **MUS 123 - Aural and Keyboard Skills I**

The development of aural competence in and visual familiarity with the sounds and symbols of the diatonic major and minor system. Exercises and drill in prepared and sight reading, dictation, error detection, accuracy of rhythm and intonation. S/U grading.

**Prerequisites & Notes:** MUS 121; music major  
Credits: 1  
Grade Mode: S/U

## **MUS 124 - Theoretical and Analytical Skills I**

Study of and practical experience in using the basic materials of musical construction including notation, melody, harmony, rhythm and form.

**Prerequisites & Notes:** MUS 122; music major  
Credits: 3

## **MUS 125 - Aural and Keyboard Skills I**

The development of aural competence in and visual familiarity with the sounds and symbols of the diatonic major and minor system. Exercises and drill in prepared and sight reading, dictation, error detection, accuracy of rhythm and intonation. S/U grading.

**Prerequisites & Notes:** MUS 123; music major  
Credits: 1  
Grade Mode: S/U

## **MUS 126 - Theoretical and Analytical Skills I**

Study of and practical experience in using the basic materials of musical construction including notation, melody, harmony, rhythm and form.

**Prerequisites & Notes:** MUS 124; music major  
Credits: 3

## **MUS 160 - Preparatory Class Piano**

Designed for students with no keyboard experience. Basic reading skills and technique.

Credits: 1

## **MUS 163 - Class Voice**

Study of basic vocal production skills and repertoire preparation.

Credits: 2

## **MUS 166A - Introduction to Voice Studies A**

This course will prepare the student for success in solo and choral voice performance at the university level. The student will be exposed to linguistic and musical resources for the preparation and performance of vocal music in various languages. Efficient practice and research techniques are also integral to the course.

**Prerequisites & Notes:** Admission to music program as a voice pre-major.  
Credits: 3

## **MUS 166B - Introduction to Voice Studies B**

A continuation of MUS 166A with added emphasis on skills necessary for success as a vocal soloist. The student will be exposed to more in-depth linguistic and musical resources such as: recital preparation, performance anxiety, and a general survey of the solo vocal repertoire.

**Prerequisites & Notes:** Admission to the music program as a voice pre-major, MUS 166A.  
Credits: 2

## **MUS 168 - Exploring the World of Teaching Music**

Overview of strategies for effective teaching, rehearsal techniques and strategies, motivational tools, appropriate body language, assertive classroom management. S/U grading.

**Prerequisites & Notes:** concurrent participation/enrollment in Marrowstone Music Festival  
Credits: 1  
Grade Mode: S/U

## **MUS 173 - Marrowstone Orchestra**

Study, rehearsal and performance of orchestra literature appropriate to students participating in the Marrowstone Music Festival. S/U grading.

**Prerequisites & Notes:** concurrent participation/enrollment in Marrowstone Music Festival

Credits: 1  
Grade Mode: S/U

**MUS 181 - Marrowstone Chamber Music**

Study, rehearsal and performance of chamber music appropriate to students participating in the Marrowstone Music Festival. S/U grading.

**Prerequisites & Notes:** concurrent participation/enrollment in Marrowstone Music Festival

Credits: 1  
Grade Mode: S/U

**MUS 202 - Jazz: Genesis and Evolution**

Open to all students. Personalities, styles and social/cultural influences on jazz from its beginning to the present day.

Credits: 3

**MUS 205 - Survey of Non-Western Musical Cultures**

Open to all students. A general introduction to the musical styles of major non-Western cultures, including those of Africa, India, Asia, Indonesia and Eastern Europe. Focus on the role played by music in each society.

Credits: 3  
GUR Attributes: ACGM

**MUS 211 - Applied Instruction: Organ**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition  
Credits: 1-4

**MUS 212 - Applied Instruction: Piano**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition  
Credits: 0-4

**MUS 213 - Applied Instruction: Strings**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

Credits: 1-4

**MUS 213A - Applied Instruction: Violin**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition  
Credits: 0-4

**MUS 213B - Applied Instruction: Viola**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition  
Credits: 0-4

**MUS 213C - Applied Instruction: Cello**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition  
Credits: 0-4

**MUS 213D - Applied Instruction: Double Bass**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition  
Credits: 1-4

**MUS 213E - Applied Instruction: Harp**

Repeatable for credit.

**Prerequisites & Notes:** music major; min applied performance audition  
Credits: 1-4

**MUS 214 - Applied Instruction: Winds and Percussion**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition  
Credits: 1-4

**MUS 214A - Applied Instruction: Flute**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

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Credits: 0-4

## **MUS 214B - Applied Instruction: Oboe**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

Credits: 1-4

## **MUS 214C - Applied Instruction: Clarinet**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

Credits: 1-4

## **MUS 214D - Applied Instruction: Bassoon**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

Credits: 1-4

## **MUS 214E - Applied Instruction: Saxophone**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

Credits: 1-4

## **MUS 214F - Applied Instruction: French Horn**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

Credits: 1-4

## **MUS 214G - Applied Instruction: Trumpet**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

Credits: 0-4

## **MUS 214H - Applied Instruction: Trombone**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

Credits: 1-4

## **MUS 214I - Applied Instruction: Euphonium**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

Credits: 1-4

## **MUS 214J - Applied Instruction: Tuba**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

Credits: 1-4

## **MUS 214K - Applied Instruction: Percussion**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

Credits: 1-4

## **MUS 215 - Applied Instruction: Voice**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

Credits: 0-4

## **MUS 216 - Applied Instruction: Classical Guitar**

Repeatable for credit.

**Prerequisites & Notes:** music major; minimum applied performance audition

Credits: 0-4

## **MUS 221 - Aural and Keyboard Skills II**

The development of aural competence in and visual familiarity with the sounds and symbols of the chromatic major and minor system; introduction to extended tertian harmony. Exercises and drill in prepared and sight reading, dictation, error detection, accuracy of rhythm and intonation. S/U grading.

**Prerequisites & Notes:** MUS 125; music major

Credits: 1  
Grade Mode: S/U

## **MUS 222 - Theoretical and Analytical Skills II**

Advanced study of and practical experience in using the materials of musical construction including extended, chromatic, and non-tertian harmonic structures and complex musical forms.

**Prerequisites & Notes:** MUS 126; music major  
Credits: 3

### **MUS 223 - Aural and Keyboard Skills II**

The development of aural competence in and visual familiarity with the sounds and symbols of the chromatic major and minor system; introduction to extended tertian harmony. Exercises and drill in prepared and sight reading, dictation, error detection, accuracy of rhythm and intonation. S/U grading.

**Prerequisites & Notes:** MUS 221; music major  
Credits: 1  
Grade Mode: S/U

### **MUS 224 - Theoretical and Analytical Skills II**

Advanced study of and practical experience in using the materials of musical construction including extended, chromatic, and non-tertian harmonic structures and complex musical forms.

**Prerequisites & Notes:** MUS 222; music major  
Credits: 3

### **MUS 225 - Aural and Keyboard Skills II**

The development of aural competence in and visual familiarity with the sounds and symbols of the chromatic major and minor system; introduction to extended tertian harmony. Exercises and drill in prepared and sight reading, dictation, error detection, accuracy of rhythm and intonation. S/U grading.

**Prerequisites & Notes:** MUS 223; music major; minimum applied performance audition  
Credits: 1  
Grade Mode: S/U

### **MUS 230 - Introduction to Electroacoustic Music**

Instruction in editing and mixing audio with computer software; analog synthesis with vintage synthesizers; history of electroacoustic music.

**Prerequisites & Notes:** MUS 105

Credits: 2

### **MUS 231 - Elementary Composition**

Elementary craft of melody, counterpoint, harmony, instrumentation, texture, rhythm, and notation; participation in weekly composition seminars. Repeatable for credit under advisement.

Credits: 1-2

### **MUS 232 - Computer Music Seminar**

Instruction in musical programming with CSound or SuperCollider. Topics include sound synthesis, signal processing, and algorithmic composition.

**Prerequisites & Notes:** MUS 105; music major  
Credits: 2

### **MUS 260 - Remedial Class Piano**

Concentration on specific areas of the Keyboard Competency Exam based on individual needs. Repeatable for credit.

**Prerequisites & Notes:** music major; successful completion of a minimum 4 items Keyboard Competency Exam  
Credits: 1

### **MUS 261 - Intermediate Class Piano**

Intermediate piano repertoire, sight-reading skills, technique and accompanying. Repeatable to a maximum of 6 cr.

**Prerequisites & Notes:** MUS 225; music major  
Credits: 1

### **MUS 263 - Vocal Pedagogy**

Vocal pedagogy and performance, conducting, developing teaching strategies with goals and objectives.

Credits: 3

### **MUS 264L - Pedagogy/lab: Woodwinds I**

Pedagogy of and performance on secondary instruments, conducting, developing teaching strategies with goals and objectives.



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Credits: 1

## **MUS 264M - Pedagogy/Lab: Woodwinds II**

Pedagogy of and performance on secondary instruments, conducting, developing teaching strategies with goals and objectives.

Credits: 1

## **MUS 264N - Pedagogy/Lab: Brass I**

Pedagogy of and performance on secondary instruments, conducting, developing teaching strategies with goals and objectives.

Credits: 1

## **MUS 264O - Pedagogy/Lab: Brass II**

Pedagogy of and performance on secondary instruments, conducting, developing teaching strategies with goals and objectives.

Credits: 1

## **MUS 264P - Pedagogy/Lab: Percussion**

Pedagogy of and performance on secondary instruments, conducting, developing teaching strategies with goals and objectives.

Credits: 1

## **MUS 265C - Pedagogy/Lab: Strings I**

Pedagogy of and performance on secondary instruments, conducting, developing teaching strategies with goals and objectives.

Credits: 1

## **MUS 265D - Pedagogy/Lab: Strings II**

Pedagogy of and performance on secondary instruments, conducting, developing teaching strategies with goals and objectives.

Credits: 1

## **MUS 268 - Introduction to Music Education**

This course is designed to introduce philosophical issues and pedagogical practices in the teaching of music in elementary and secondary schools. Through discussion, reading, presentation, and observation, students will explore the career realities of full-time public school music teaching.

Students will be introduced to a variety of frameworks for effective instruction, and will examine content and strategies for organizing and presenting lessons in classroom and rehearsal settings.

**Prerequisites & Notes:** music major

Credits: 2

## **MUS 269 - Music Teaching Practicum I**

Observation, assisting and/or micro-teaching experience in K-12 music classroom environments. Repeatable for credit.

**Prerequisites & Notes:** instructor permission

Credits: 2

## **MUS 271 - University Choir**

Preparation and performance of major choral works and part-songs. Open to all students having the ability to sing mixed part-songs. Repeatable for credit.

**Prerequisites & Notes:** instructor permission

Credits: 2

## **MUS 272 - Symphonic Band**

Preparation and performance of major band works. Open to all students with band experience. Repeatable for credit.

**Prerequisites & Notes:** instructor permission

Credits: 2

## **MUS 274 - Jazz Ensembles**

Performance and interpretation of contemporary jazz in a large ensemble situation. Repeatable for credit.

**Prerequisites & Notes:** by audition

Credits: 2

## **MUS 275 - Chamber Jazz Ensembles**

Supervised small ensemble performance in jazz idioms stressing repertoire, improvisation, and performance of written arrangements and compositions. One public performance per quarter required. Repeatable for credit.

**Prerequisites & Notes:** by audition; MUS 224, MUS 334 strongly recommended

Credits: 2

**MUS 276 - Piano Accompanying**

Includes private accompanying instruction and weekly performance seminars. Accompanying assignments include duos, chamber ensembles and large performance ensembles. Sight-reading skills, interpretation and accompanying techniques are emphasized. Repeatable for credit.

Credits: 2

**MUS 278 - Opera Workshop**

Preparation of opera scenes or a major music production to include a public performance each quarter. Repeatable for credit.

**Prerequisites & Notes:** by audition

Credits: 1-2

**MUS 280 - Collegium Musicum**

Music literature studies from an analytical and performance viewpoint from early to classic music, culminating in a public performance each quarter. Repeatable for credit.

**Prerequisites & Notes:** by audition

Credits: 1-2

**MUS 281A - Applied Chamber Music: Flute**

Repeatable.

**Prerequisites & Notes:** by audition

Credits: 1-2

**MUS 281B - Applied Chamber Music: Double Reed**

Repeatable.

**Prerequisites & Notes:** by audition

Credits: 1-2

**MUS 281C - Applied Chamber Music: Single Reed**

Repeatable.

**Prerequisites & Notes:** by audition

Credits: 1-2

**MUS 281F - Applied Chamber Music: High Brass**

Repeatable.

**Prerequisites & Notes:** by audition

Credits: 1-2

**MUS 281H - Applied Chamber Music: Low Brass**

Repeatable.

**Prerequisites & Notes:** by audition

Credits: 1-2

**MUS 281K - Applied Chamber Music: Percussion**

Repeatable.

**Prerequisites & Notes:** by audition

Credits: 1-2

**MUS 281L - Applied Chamber Music: Strings**

Repeatable.

**Prerequisites & Notes:** by audition

Credits: 1-2

**MUS 281M - Applied Chamber Music: Piano**

Repeatable.

**Prerequisites & Notes:** by audition

Credits: 1-2

**MUS 281N - Applied Chamber Music: Guitar**

Repeatable.

**Prerequisites & Notes:** by audition

Credits: 1-2

**MUS 283 - Chamber Vocal Ensembles**

Repeatable for credit.

**Prerequisites & Notes:** by audition

Credits: 2

**MUS 284 - Vocal Jazz Ensemble**

Preparation and performance of vocal works by major jazz composers. Open to all University students having the ability to sing in mixed chorus. Repeatable for credit.

**Prerequisites & Notes:** by audition

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Credits: 2

## **MUS 285 - Fundamentals of Musical Theatre**

Practical application for singing, acting and movement to performance-related work from American musical theatre through solo, duet and group performance. Repeatable to a maximum of 6 cr.

Credits: 3

## **MUS 305 - Musics of the Pacific Rim**

An investigation of specific musical styles and practices of selected Pacific Rim cultures, including Pacific Islands, West Coast Native Americans, South America, Indonesia, China and Japan. Includes class participation in actual musical situations from these areas.

**Prerequisites & Notes:** MUS 205

Credits: 3

## **MUS 311 - Applied Instruction: Organ**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

Credits: 1-4

## **MUS 312 - Applied Instruction: Piano**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

Credits: 0-4

## **MUS 313 - Applied Instruction: Strings**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

Credits: 1-4

## **MUS 313A - Applied Instruction: Violin**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

Credits: 0-4

## **MUS 313B - Applied Instruction: Viola**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

Credits: 0-4

## **MUS 313C - Applied Instruction: Cello**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

Credits: 0-4

## **MUS 313D - Applied Instruction: Double Bass**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

Credits: 1-4

## **MUS 313E - Applied Instruction: Harp**

Repeatable for credit.

**Prerequisites & Notes:** music mjr; upr-div exam

Credits: 1-4

## **MUS 314 - Winds and Percussion**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

Credits: 1-4

## **MUS 314A - Applied Instruction: Flute**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

Credits: 0-4

## **MUS 314B - Applied Instruction: Oboe**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

Credits: 1-4

## **MUS 314C - Applied Instruction: Clarinet**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 1-4

**MUS 314D - Applied Instruction: Bassoon**  
Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 1-4

**MUS 314E - Applied Instruction: Saxophone**  
Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 1-4

**MUS 314F - Applied Instruction: French Horn**  
Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 1-4

**MUS 314G - Applied Instruction: Trumpet**  
Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 0-4

**MUS 314H - Applied Instruction: Trombone**  
Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 1-4

**MUS 314I - Applied Instruction: Euphonium**  
Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 1-4

**MUS 314J - Applied Instruction: Tuba**  
Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam

Credits: 1-4

**MUS 314K - Applied Instruction: Percussion**  
Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 1-4

**MUS 315 - Applied Instruction: Voice**  
Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 0-4

**MUS 316 - Applied Instruction: Classical Guitar**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 0-4

**MUS 321 - Aural and Keyboard Skills III**

The development of aural competence in and visual familiarity with the sounds and symbols of atonal, freely tonal and highly chromatic tonal systems; completion of extended tertian harmony. Exercises and drill in prepared and sight reading, dictation, error detection, accuracy of rhythm and intonation. S/U grading.

**Prerequisites & Notes:** MUS 225; music major  
Credits: 1  
Grade Mode: S/U

**MUS 322 - Form and Analysis: Music to 1900**

Formal and stylistic analysis of works from the major historical periods up to 1900.

**Prerequisites & Notes:** MUS 224, MUS 225.  
Credits: 3

**MUS 323 - Aural and Keyboard Skills III**

The development of aural competence in and visual familiarity with the sounds and symbols of atonal, freely tonal and highly chromatic tonal systems; completion of extended tertian harmony. Exercises and drill in prepared and sight reading, dictation, error detection, accuracy of rhythm and

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intonation. S/U grading.

**Prerequisites & Notes:** MUS 321

Credits: 1

Grade Mode: S/U

## **MUS 324A - Modal Counterpoint**

Counterpoint in species and free style. Composition and analysis of pieces in two and three parts.

**Prerequisites & Notes:** MUS 224, MUS 225.

Credits: 3

## **MUS 324B - Tonal Counterpoint**

Counterpoint in species and free style. Composition and analysis of pieces in two and three parts.

**Prerequisites & Notes:** MUS 224, MUS 225.

Credits: 3

## **MUS 325 - Aural and Keyboard Skills III**

The development of aural competence in and visual familiarity with the sounds and symbols of atonal, freely tonal and highly chromatic tonal systems; completion of extended tertian harmony. Exercises and drill in prepared and sight reading, dictation, error detection, accuracy of rhythm and intonation. S/U grading.

**Prerequisites & Notes:** MUS 323

Credits: 1

Grade Mode: S/U

## **MUS 326 - Orchestration/Arranging**

Orchestration and arranging with special reference to the needs of the instrumental conductor and composer. Repeatable for credit.

**Prerequisites & Notes:** MUS 224, MUS 225.

Credits: 3

## **MUS 328A - Technology for Music Educators**

Analyzing, application, and interaction with current technology used for educational purposes in music. Sequencing, notation, smart board instruction, web design, and mixed media as instructional and research tools.

**Prerequisites & Notes:** MUS 224, MUS 225, IT

344 or portfolio of basic instructional technology skills, music education major status.

Credits: 3

## **MUS 328B - Midi Notation and Sequencing for Composition**

Computer-based notation and recording of music through MIDI keyboard systems.

**Prerequisites & Notes:** MUS 224, MUS 225.

Credits: 3

## **MUS 331 - Composition**

Intermediate-level projects in melody, counterpoint, harmony, instrumentation, texture, rhythm, and notation; participation in weekly composition seminars. Repeatable for credit under advisement.

**Prerequisites & Notes:** MUS 226; successful completion of upper-division competency exam in composition.

Credits: 3

## **MUS 334 - Jazz Improvisation I**

Study of basic chord changes, scales and patterns with improvisation based on these principles. Analysis of transcribed solos and study of jazz repertoire.

**Prerequisites & Notes:** open to all accepted jazz majors or MUS 224

Credits: 3

## **MUS 335 - Jazz Improvisation II**

Study of altered chords, scales and patterns with improvisation based on the principles. Analysis of transcribed solos, study of jazz repertoire and ear training.

**Prerequisites & Notes:** MUS 334

Credits: 3

## **MUS 336 - Jazz Improvisation III**

Study of bitonal chords, atonality and patterns with improvisation based on these principles. Analysis of transcribed solos, study of jazz repertoire and ear training.

**Prerequisites & Notes:** MUS 335

Credits: 3

## **MUS 341 - History of Music to 1600**

Main styles, forms, terminology and composers up to 1600. Individual research projects.

**Prerequisites & Notes:** MUS 224, MUS 225; music major status.  
Credits: 3

### **MUS 342 - History of Music 1600-1830**

Main styles, forms, terminology and composers from 1600 to 1830. Individual research projects.

**Prerequisites & Notes:** MUS 341; music major  
Credits: 3

### **MUS 343 - History of Music 1830-Present**

Main styles, forms, terminology and composers from 1830-present. Individual research projects.

**Prerequisites & Notes:** MUS 342; music major  
Credits: 3

### **MUS 351 - Basic Conducting**

Basic conducting techniques, score reading and interpretive analysis.

**Prerequisites & Notes:** MUS 224, MUS 225; music major status.  
Credits: 2

### **MUS 352 - Instrumental Conducting**

Instrumental techniques, score reading, interpretive analysis and rehearsal techniques.

**Prerequisites & Notes:** MUS 224, MUS 225; music major status.  
Credits: 3

### **MUS 353 - Choral Conducting**

Choral techniques, score reading, interpretive analysis and rehearsal techniques.

**Prerequisites & Notes:** MUS 224, MUS 225; music major status.  
Credits: 3

### **MUS 354 - Advanced Conducting**

Hands-on practical experience in developing advanced conducting skills. Ensemble conducting experience.

**Prerequisites & Notes:** MUS 352, MUS 353;

music major  
Credits: 3

### **MUS 354A - Choral Conducting**

Hands-on practical experience in developing advanced conducting skills. Ensemble conducting experience.

**Prerequisites & Notes:** MUS 352, MUS 353; music major  
Credits: 3

### **MUS 354B - Instrumental Conducting**

Hands-on practical experience in developing advanced conducting skills. Ensemble conducting experience.

**Prerequisites & Notes:** MUS 352, MUS 353; music major  
Credits: 3

### **MUS 361 - Music for Elementary Teachers**

For elementary teachers, not music majors. The skills of singing, reading, writing, playing and hearing music; techniques and materials used in the elementary grades.

Credits: 3

### **MUS 362 - General Music Education**

Instructional techniques, resources, curriculum design, and methodology for teaching students in non-performance based general music classes. Emphasis on P-6th Grades.

**Prerequisites & Notes:** MUS 124; music major status.  
Credits: 3

### **MUS 364 - Elementary String Education**

Instruction in elementary-level string instrumental repertoire, teaching strategies, rehearsal techniques, curriculum design and implementation. Peer-teaching and micro-teaching assignments in conjunction with Instrumental Pedagogy Lab classes and public school programs.

**Prerequisites & Notes:** MUS 265A, MUS 265B; music major  
Credits: 2

# MUSIC

## **MUS 366A - Vocal Diction: Italian**

Familiarization and application of the phonetic structures of the major languages of singing and the use of the International Phonetic Alphabet as a basic tool for pronunciation.

**Prerequisites & Notes:** music major; must be taken concurrent with applied voice instruction  
Credits: 1

## **MUS 366B - Vocal Diction: German**

Familiarization and application of the phonetic structures of the major languages of singing and the use of the International Phonetic Alphabet as a basic tool for pronunciation.

**Prerequisites & Notes:** music major; must be taken concurrent with applied voice instruction  
Credits: 1

## **MUS 366C - Vocal Diction: French**

Familiarization and application of the phonetic structures of the major languages of singing and the use of the International Phonetic Alphabet as a basic tool for pronunciation.

**Prerequisites & Notes:** music major; must be taken concurrent with applied voice instruction  
Credits: 1

## **MUS 367 - Fretboard Harmony**

Diatonic harmony applied to the fretboard. Hands-on application of scales and chords as well as basic arranging chord-melody for the guitarist.

**Prerequisites & Notes:** MUS 124, three quarters of MUS 216.  
Credits: 1

## **MUS 398 - Integrated Arts for Elementary Educators**

This arts education course provides future teachers with a foundation in the elements and principles of Visual Art, Dance, Music and Theatre and their applicability to the elementary classroom. (Also offered as ART 398, DNC 398 and THTR 398).

**Prerequisites & Notes:** Admission to a teacher education program leading to an elementary endorsement.

Credits: 3

## **MUS 411 - Applied Instruction: Organ**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 1-4

## **MUS 412 - Applied Instruction: Piano**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 0-4

## **MUS 413 - Applied Instruction: Strings**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 1-4

## **MUS 413A - Applied Instruction: Violin**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 0-4

## **MUS 413B - Applied Instruction: Viola**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 0-4

## **MUS 413C - Applied Instruction: Cello**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 0-4

## **MUS 413D - Applied Instruction: Double Bass**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 1-4

**MUS 413E - Applied Instruction: Harp**

Repeatable for credit.

**Prerequisites & Notes:** music mjr; upr-div exam  
Credits: 1-4

**MUS 414 - Applied Instruction: Winds and Percussion**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 1-4

**MUS 414A - Applied Instruction: Flute**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 0-4

**MUS 414B - Applied Instruction: Oboe**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 1-4

**MUS 414C - Applied Instruction: Clarinet**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 1-4

**MUS 414D - Applied Instruction: Bassoon**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 1-4

**MUS 414E - Applied Instruction: Saxophone**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 1-4

**MUS 414F - Applied Instruction: French Horn**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 1-4

**MUS 414G - Applied Instruction: Trumpet**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 0-4

**MUS 414H - Applied Instruction: Trombone**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 1-4

**MUS 414I - Applied Instruction: Euphonium**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 1-4

**MUS 414J - Applied Instruction: Tuba**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 1-4

**MUS 414K - Applied Instruction: Percussion**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 1-4

**MUS 415 - Applied Instruction: Voice**

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 0-4

**MUS 416 - Applied Instruction: Classical Guitar**



# MUSIC

Repeatable for credit.

**Prerequisites & Notes:** music major; upper-division exam  
Credits: 0-4

## **MUS 422 - Analytical Techniques: 20th-Century Music**

Formal and stylistic analysis of representative 20th-century works.

**Prerequisites & Notes:** MUS 224, MUS 225.  
Credits: 3

## **MUS 431 - Composition**

Advanced projects in melody, counterpoint, harmony, instrumentation, texture, rhythm, and notation; participation in weekly composition seminars. Repeatable for credit under advisement.

**Prerequisites & Notes:** minimum 6 credits MUS 331  
Credits: 3

## **MUS 432 - Electroacoustic Music**

Instruction in the use of synthesizers, samplers, and computer software for use in electroacoustic music. Group instruction and studio time. Repeatable to a maximum of 6 cr.

**Prerequisites & Notes:** Two from: MUS 230, MUS 232, MUS 328  
Credits: 2

## **MUS 434 - Jazz Arranging I**

Writing and arranging for small jazz ensembles. Analysis of small jazz ensemble styles.

**Prerequisites & Notes:** MUS 224 or MUS 334.  
Credits: 3

## **MUS 435 - Jazz Arranging II**

Writing and arranging for a variety of instrumental combinations. Analysis of jazz ensemble styles.

**Prerequisites & Notes:** MUS 434  
Credits: 3

## **MUS 436 - Jazz Arranging III**

Writing and arranging for large jazz ensemble. Analysis of large jazz ensemble styles.

**Prerequisites & Notes:** MUS 435  
Credits: 3

## **MUS 441 - Notation**

Reading and interpreting early, contemporary or other extant systems.

**Prerequisites & Notes:** MUS 224, MUS 341, MUS 343; permission of instructor.  
Credits: 3

## **MUS 442 - Seminar in Music History**

The student, in consultation with the instructor, selects one or more given musical developments for individual research. Ongoing results of this research are shared with other members of the seminar. Focus of varies from quarter to quarter. Repeatable for credit.

**Prerequisites & Notes:** MUS 342, MUS 343; music major  
Credits: 4

## **MUS 443A - History of Musical Genres: Choral Music**

Development and literature of important musical genres from their origin to the present.

**Prerequisites & Notes:** MUS 343; music major  
Credits: 3

## **MUS 443B - History of Musical Genres: Solo Song**

Development and literature of important musical genres from their origin to the present.

**Prerequisites & Notes:** MUS 343; music major  
Credits: 3

## **MUS 443C - History of Musical Genres: Opera**

Development and literature of important musical genres from their origin to the present.

**Prerequisites & Notes:** MUS 343; music major  
Credits: 3

## **MUS 443D - History of Musical Genres: Keyboard Music**

Development and literature of important musical genres from their origin to the present.

**Prerequisites & Notes:** MUS 343; music major  
Credits: 3

**MUS 443E - History of Musical Genres:  
Chamber Music**

Development and literature of important musical genres from their origin to the present.

**Prerequisites & Notes:** MUS 343; music major  
Credits: 3

**MUS 443F - History of Musical Genres:  
Symphonic Music**

Development and literature of important musical genres from their origin to the present.

**Prerequisites & Notes:** MUS 343; music major  
Credits: 3

**MUS 443G - History of Musical Genres:  
Concerto**

Development and literature of important musical genres from their origin to the present.

**Prerequisites & Notes:** MUS 343; music major  
Credits: 3

**MUS 443H - History of Musical Genres:  
Symphonic Music in the 20th Century**

Development and literature of important musical genres from their origin to the present.

**Prerequisites & Notes:** MUS 343; music major  
Credits: 3

**MUS 443I - History of Musical Genres: Opera I**

Development and literature of important musical genres from their origin to the present.

**Prerequisites & Notes:** MUS 343; music major  
Credits: 3

**MUS 443J - History of Musical Genres: Opera II**

Development and literature of important musical genres from their origin to the present.

**Prerequisites & Notes:** MUS 343; music major.  
Credits: 3

**MUS 444 - Shakespeare and Music**

History and literature of musicians' responses to works of Shakespeare - music for stage and film, orchestral music, opera and song settings.

**Prerequisites & Notes:** MUS 343  
Credits: 3

**MUS 451 - Conducting Practicum**

Advanced conducting techniques to include direction of student ensembles under faculty supervision.

**Prerequisites & Notes:** MUS 351; MUS 352 or MUS 353  
Credits: 1-3

**MUS 455 - Band Music Workshop**

Offered summers only. Repeatable for credit.

Credits: 2

**MUS 456 - String Music Workshop**

Offered summers only. Repeatable for credit.

Credits: 2

**MUS 461 - Advanced Techniques in General Music Education**

Advanced teaching techniques for instructing K-12 students in non-performance based classrooms. In depth curriculum, methods, strategies, and music class options included, particularly intermediate through 9th grade students. Laboratory experience is included.

**Prerequisites & Notes:** MUS 361 or MUS 362  
Credits: 3

**MUS 462 - Band Music Education**

Instruction in elementary, middle and high school band, jazz band, and marching band. Curriculum design, teacher effectiveness, repertoire, rehearsal techniques and classroom management. Peer-teaching and micro teaching assignments in public schools.

**Prerequisites & Notes:** MUS 264A, MUS 264B, MUS 264G or MUSH; MUS 354; B- or better.  
Credits: 3

**MUS 463 - Secondary Choral Music Education**

## MUSIC

Instruction in middle and high school choral repertoire, teaching strategies, rehearsal techniques, classroom management, curriculum design. Peer-teaching and micro-teaching assignments in public schools.

**Prerequisites & Notes:** MUS 354; music education major; admission to Woodring College of Education  
Credits: 3

### **MUS 464 - Orchestral Music Education**

Instruction in elementary, middle and high school orchestral curriculum design, teaching strategies, repertoire, rehearsal techniques and classroom management. Peer-teaching and micro-teaching assignments in public schools.

**Prerequisites & Notes:** MUS 354, MUS 265A or 265B; music education major status, and admission to Woodring College of Education.  
Credits: 3

### **MUS 466 - Applied Music Pedagogy**

A study of the basic concepts involved in instrument or voice pedagogy through a survey of the most important modern teaching methods. Repeatable for credit.

**Prerequisites & Notes:** upper-division applied instruction; music major  
Credits: 1-3

### **MUS 466A - Applied Music Pedagogy: Piano**

A study of the basic concepts involved in instrument or voice pedagogy through a survey of the most important modern teaching methods. Repeatable for credit.

**Prerequisites & Notes:** upper-division applied instruction; music major  
Credits: 2

### **MUS 466B - Applied Music Pedagogy: Voice**

A study of the basic concepts involved in instrument or voice pedagogy through a survey of the most important modern teaching methods. Repeatable for credit.

**Prerequisites & Notes:** upper-division applied instruction; music major

Credits: 2

### **MUS 467 - Applied Music Literature**

A stylistic and historical survey of literature for instruments or voice. Repeatable for credit.

**Prerequisites & Notes:** music major  
Credits: 1-3

### **MUS 467A - Applied Music Literature**

A stylistic and historical survey of literature for instruments or voice. Repeatable for credit.

**Prerequisites & Notes:** music major  
Credits: 3

### **MUS 468A - Guitar History and Repertory**

A survey of guitar literature and history from Renaissance to present.

**Prerequisites & Notes:** MUS 367; corequisite: MUS 216.  
Credits: 2

### **MUS 468B - Guitar History and Repertory**

A survey of guitar literature and history from Renaissance to present.

**Prerequisites & Notes:** MUS 367; corequisite: MUS 216.  
Credits: 2

### **MUS 469 - Music Teaching Practicum II**

Observation, assisting and intense field experience in music classroom environments. Repeatable for credit.

**Prerequisites & Notes:** admission to Woodring College of Education  
Credits: 2

### **MUS 471 - Concert Choir**

Selected group experience, vocal ability, reading skill, musicianship and interest in serious choral music considered for membership. Repeatable for credit.

**Prerequisites & Notes:** by audition  
Credits: 2

### **MUS 472 - Wind Symphony**

Repeatable for credit.

**Prerequisites & Notes:** by audition

Credits: 2

**MUS 473 - University Symphony Orchestra**

Repeatable for credit.

**Prerequisites & Notes:** by audition

Credits: 2

**MUS 474 - Jazz Ensembles**

Advanced performance and interpretation of contemporary jazz in an ensemble situation; recent developments in the idiom; performance of student compositions and arrangements.

Repeatable for credit.

**Prerequisites & Notes:** by audition

Credits: 2

**MUS 475 - Chamber Jazz Ensemble**

Supervised small ensemble playing in jazz idioms stressing repertoire, improvisation and performance of written arrangements and compositions. One public performance per quarter required. Repeatable for credit.

**Prerequisites & Notes:** by audition; MUS 334 or MUS 434 strongly recommended

Credits: 2

**MUS 476 - Advanced Piano Accompanying**

Advanced instruction in accompanying skills. Repeatable for credit.

**Prerequisites & Notes:** completion of major performance ensemble requirement

Credits: 2

**MUS 478 - Advanced Opera Production**

Preparation of opera scenes or a major musical production to include a public performance each quarter. Repeatable for credit.

**Prerequisites & Notes:** by audition

Credits: 1-2

**MUS 480 - Advanced Collegium Musicum**

Music literature studies from an analytical and performance viewpoint from early to classic music,

culminating in a public performance each quarter. Repeatable for credit.

Credits: 1-2

**MUS 481 - Advanced Applied Chamber Music**

Open to piano, string, wind, brass and percussion performers. Repeatable for credit.

**Prerequisites & Notes:** by audition

Credits: 2

**MUS 483 - Advanced Chamber Vocal Ensembles**

Repeatable for credit.

**Prerequisites & Notes:** by audition

Credits: 2

**MUS 484 - Advanced Vocal Jazz Ensemble**

Preparation and performance of vocal works by major jazz composers. Open to all University students having the ability to sing in mixed chorus. Repeatable for credit.

**Prerequisites & Notes:** by audition; MUS 101, MUS 102, MUS 103 recommended

Credits: 2

**MUS 485 - New Music Ensemble**

Performance of 20th-century music literature. Repeatable for credit.

**Prerequisites & Notes:** by audition

Credits: 1-2

**MUS 486 - Chamber Orchestra**

Rehearsal and performance of chamber orchestra literature. Repeatable for credit.

Credits: 1

**MUS 490 - Senior Thesis**

S/U grading.

**Prerequisites & Notes:** admission to music history and literature program

Credits: 3

Grade Mode: S/U

**MUS 499 - Senior Recital**

# MUSIC

A full-length, public recital approved by the student's Recital Committee. S/U grading.

Credits: 3

Grade Mode: S/U

## **MUS 501 - Instrumental Conducting and Rehearsal Techniques**

Advanced work in conducting band and orchestra music; baton technique, interpretation, score preparation and rehearsal techniques. Repeatable for credit.

Credits: 3

## **MUS 502 - Choral Conducting and Literature**

Successful techniques in developing and conducting choral groups, score analysis of outstanding choral works; laboratory experience in conducting. Repeatable for credit.

Credits: 3

## **MUS 503 - Introduction to Graduate Study of Music**

Sources and availability of music, recordings and literature about music throughout its entire history. Techniques of research bibliography and formal writing about music. Students are expected to prepare and defend a formal written project.

Credits: 4

## **MUS 511 - Individual Instruction: Advanced Organ**

In addition to regularly scheduled private lessons, students are expected to participate in organ class performances and to hold a church organist position throughout their residence for the degree. Repeatable for credit.

**Prerequisites & Notes:** by audition

Credits: 3-4

## **MUS 512 - Individual Instruction: Advanced Piano**

In addition to regularly scheduled private lessons, a public performance is expected each quarter. Repeatable for credit.

**Prerequisites & Notes:** by audition

Credits: 0-4

## **MUS 513 - Individual Instruction: Advanced Strings**

In addition to regularly scheduled private lessons, a public performance of a significant work is expected. The performance will be approved and evaluated by a faculty committee. Repeatable for credit.

**Prerequisites & Notes:** by audition

Credits: 3-4

## **MUS 514 - Individual Instruction: Advanced Orchestral Winds and Percussion**

In addition to regularly scheduled private lessons, a public performance of a significant work is expected. The performance will be approved and evaluated by a faculty committee. Repeatable for credit.

**Prerequisites & Notes:** by audition

Credits: 3-4

## **MUS 515 - Individual Instruction: Advanced Voice**

In addition to regularly scheduled private lessons, a public performance is expected each quarter. Repeatable for credit.

**Prerequisites & Notes:** by audition

Credits: 0-4

## **MUS 518 - Individual Instruction: Applied Jazz**

Individual instruction in jazz performance styles and techniques. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** admission to MMus

degree program

Credits: 3-4

## **MUS 519 - Individual Instruction - Advanced Applied Conducting**

Individual instruction in conducting techniques and repertoire.

**Prerequisites & Notes:** admission to MMus

degree program; MUS 501 or MUS 502

Credits: 1-3

**MUS 525 - Brass and Percussion Techniques and Materials**

Pedagogical and fundamental performance problems for all brass and percussion instruments; appropriate literature for beginning through advanced levels; performance problems encountered within the school band and orchestra settings.

Credits: 3

**MUS 531 - Arranging**

Practical techniques in arranging and composing for large and small ensembles. Summer only.

Credits: 3

**MUS 532 - Analytical Techniques: 20th-Century Musical Practices**

Analysis of works by various composers who have generated the major trends of 20th-century music.

Credits: 3

**MUS 533 - Analytical Techniques: 19th-Century Musical Styles and Practices**

Analysis of works by various composers who generated the major trends of 19th-century music.

Credits: 3

**MUS 534 - Composition**

Composition, rehearsal and public performance of original works. Repeatable for credit.

**Prerequisites & Notes:** MUS 431

Credits: 4

**MUS 538 - Notation**

Reading, interpreting and transcribing music from early notational systems.

Credits: 3

**MUS 539 - History of Musical Genres**

An in-depth look at a particular musical genre. Sample topics: opera, solo song, choral music, the concerto, symphonic music. Course may be repeated once for credit, with a different topic.

Credits: 3

**MUS 541 - History/Analysis: Music to 1600**

An in-depth study of a particular segment of music from the period with historical perspective, analysis of representative works, and bibliography and research techniques appropriate to the subject. Repeatable once for credit.

Credits: 4

**MUS 542 - History/Analysis: Music from 1600-1830**

An in-depth study of a particular segment of music from the period with historical perspective, analysis of representative works, and bibliography and research techniques appropriate to the subject. Repeatable once for credit.

Credits: 4

**MUS 543 - History/Analysis: Music from 1830-Present**

An in-depth study of a particular segment of music from the period with historical perspective, analysis of representative works, and bibliography and research techniques appropriate to the subject. Repeatable once for credit.

Credits: 4

**MUS 550 - Seminar in the History of Music**

Detailed study of a particular period or phase of the history of music designed to give students a first-hand acquaintance with one special area of musical literature and with musicological method.

Credits: 3

**MUS 555 - Advanced Band Music Workshop**

Course not applicable to MMus degree. Offered summers only. Repeatable for credit.

Credits: 2

**MUS 556 - Advanced String Orchestra Music Workshop**

Course not applicable to MMus degree. Offered summers only. Repeatable for credit.

# MUSIC

Credits: 2

## **MUS 571 - Concert Choir**

Rehearsal and public performance of representative choral works. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** admission to MMus degree program  
Credits: 2

## **MUS 572 - Wind Symphony**

Rehearsal and public performance of works for wind ensemble. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** admission to MMus degree program  
Credits: 2

## **MUS 573 - University Symphony Orchestra**

Rehearsal and public performance of works for symphony orchestra. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** admission to MMus degree program  
Credits: 2

## **MUS 574 - Jazz Ensembles**

Advanced performance and interpretation of contemporary jazz in an ensemble situation; recent developments in the idiom; performance of student compositions and arrangements. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** admission to MMus degree program  
Credits: 2

## **MUS 575 - Chamber Jazz Ensembles**

Supervised small ensemble playing in jazz idioms stressing repertoire, improvisation and performance of written arrangements and compositions. One public performance per quarter required. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** admission to MMus degree program  
Credits: 2

## **MUS 576 - Accompanying**

Graduate-level instruction in accompanying skills. Pianists will accompany singers and instrumentalists under the supervision and regular coaching of the instructor. Repeatable for credit.

Credits: 0-30

## **MUS 578 - Opera Production**

Preparation of opera scenes or a major musical production to include a public performance each quarter. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** admission to MMus degree program  
Credits: 1-2

## **MUS 580 - Advanced Collegium Musicum**

Editing, coaching and performance practice of early music (before 1800). Involves preparation and participation in public performance. (Only 6 credits applicable towards MMus degree). Repeatable up to 6 credits.

Credits: 2

## **MUS 581 - Applied Chamber Music**

Rehearsal and public performance of representative works of chamber music. Open to piano, string, wind, brass and percussion performers. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** admission to MMus degree program  
Credits: 2

## **MUS 583 - Chamber Vocal Ensembles**

Rehearsal and public performance of chamber vocal works. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** admission to MMus degree program  
Credits: 2

## **MUS 585 - New Music Ensemble**

Rehearsal and performance of 20th-century music literature. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** admission to MMus degree program  
Credits: 2

**MUS 586 - Chamber Orchestra**

Rehearsal and performance of chamber orchestra literature. Repeatable to a maximum of 6 cr.

**Prerequisites & Notes:** admission to MMus degree program  
Credits: 1

**MUS 690 - Thesis**

Students in the composition concentration of the MMus degree program may meet the thesis requirement` by submitting a major original composition; students in the performance concentration may meet the thesis requirement by presenting a full-length public recital; students in the music education concentration selecting the conducting practicum for their thesis requirement will carry out a practical and/or creative conducting project, field study or investigation, or rehearsal/conducting series culminating in a public performance. Repeatable to a maximum of 6 cr.

Credits: 1-6



# Theatre and Dance

## Introduction

### Department Mission Statement

The faculty and staff of the Theatre and Dance department are committed to a liberal arts approach to performing arts education while maintaining a balance of both academic and practical approaches to the arts of theatre and dance. We believe strongly in the value of academic rigor, which in turn supports and maintains productions and projects of the highest standards. We promote a global, diverse and collaborative view of performing arts education, and strive to train artistic leaders in their chosen disciplines who will further contribute to the craft.

#### *Program Description: Theatre*

Theatre offers a Bachelor of Arts as well as a theatre minor and an endorsement in Theatre Education in conjunction with Woodring College of Education. Each theatre arts major is grounded in generalist fundamentals and chooses one or more areas of specialization (acting, dramatic writing, educational theatre, technical theatre, design and/or management). In addition to preparing majors for careers in academic or professional theatre, the lessons acquired through this course of study are readily transferable to careers in teaching, law, business, social services and other areas where inter- and intrapersonal skills are required. The following areas of knowledge are central to the undergraduate degree in theatre arts:

- Major works of dramatic literature representative of diverse cultures
- The history of theatrical production - its styles, conventions and social context - from the ancients to the present day
- The means by which theatrical production is realized
- The role of theatre in shaping our past, present and future

In addition, students completing a degree in theatre arts will possess the ability to:

- Analyze and interpret dramatic literature and performance from the standpoint of designer, performer, director, playwright or critic
- Safely and efficiently use the tools and equipment basic to theatrical production
- Function effectively as a member of a collaborative team in the preparation and realization of a public performance

Assessment of these competencies is accomplished through individual course performance as well as a final evaluation of each student via a senior project, which may include the presentation of a written thesis, performance project or portfolio. Projects vary by student specialization and interests.

#### *Program Description: Dance*

Dance offers a Bachelor of Arts and a Bachelor of Fine Arts as well as a Dance Minor and a Teaching Endorsement in conjunction with Woodring College of Education.

Entry into the BA/BFA is by audition. Completion of the program is dependent upon successful progress through the curriculum. The BA is a broadly-based degree, with a liberal arts orientation, and is designed for students with a general rather than career interest in performing or choreographing. BA candidates will focus on pedagogical and historic aspects of dance. The BFA degree is a highly selective program which trains exceptionally committed, disciplined, and talented students. The BFA degree also requires recommendation of faculty members.

The Dance Program expects achievement in the following competencies by graduating majors in both the BA and BFA. Our students will:

- Develop proficiency in modern dance technique
- Develop competency in ballet technique
- Become familiar with the history of dance and enhance writing skills by using this knowledge

- Gain expanded diversity awareness through the cultural dimensions of dance
- Understand alignment and anatomy as they relate to dancers
- Explore their choreographic potential in traditional and/or experimental approaches
- Learn the basic skills and operations of technical theatre related to dance production
- Have multiple performing opportunities in different venues

Assessment of these competencies is accomplished through individual course performance, completion of degree requirements, and in part by successful audition and casting in faculty directed events. BFA candidates will be expected to participate in a culminating Capstone course and presentation as choreographers and as featured dancers.

## Faculty

**BETH LEONARD** (2013) Chair and Associate Professor. B.S. University of Kansas; M.A. University of Central Missouri; MFA University of Missouri; ABD University of Kansas.

**RICH BROWN** (2006) Associate Professor. BA, MA, Central Missouri State University; PhD, University of Oregon.

**DEBORAH CURRIER** (2003) Associate Professor. BA, California State University; MA, PhD, University of Oregon.

**NOLAN DENNETT** (1989) Professor. BA, Brigham Young University; MA, Western Washington University.

**DIPU GUPTA** (2013) Assistant Professor. BA, University of Pennsylvania; MARCH, University of Virginia; MFA University of California, L.A.

**CHARLOTTE GUYETTE** (2009) Associate Professor. BFA, Utah State; MFA Pennsylvania State University.

**MONICA HART** (2013) Assistant Professor. BA University of Montana; MFA Wayne State.

**PENNY HUTCHINSON** (2005) Associate Professor. BA, Vermont College; MFA, Mills College.

**MARK KUNTZ** (1997) Professor. BA, University of Washington; MFA, University of Oregon.

**JAMES E. LORTZ** (1989) Professor. BFA, MFA, University of Montana.

**DAVID SAXTON** (2009) Assistant Professor. BFA, Carnegie-Mellon University

## Instructors

**CHER CARNELL** (1996) Associate Chair and Senior Instructor, BA University of Wisconsin; MEd, Western Washington University.

**MIKE BAJUK** (2004) Senior Instructor. BM, Western Washington University; MS, University of Indiana-Purdue.

**KAMARIE CHAPMAN** (2010) Instructor, BA Western Washington University; MFA, University of New Mexico.

**SUSAN HAINES** (2005) Senior Instructor. BA, Radford University; MFA, University of North Carolina-Greensboro.

**PAM KUNTZ** (1999) Senior Instructor. BFA, University of Montana; MFA, Boston Conservatory.

**HANNA ANDERSEN** (2011) Instructor. BFA, Western Washington University.

**RICK MERRILL** (2005) Senior Instructor.

**CYNTHIA SHEPARD** (2008) Instructor. BA, California State University-Fullerton; MA, Immaculate Heart College-Los Angeles

## Affiliated Teaching Staff

**RACHEL ANDERSON** (2000) BA, Western Washington University; MFA, University of Montana.

**MARCUS TODD** (2009) BA, Eastern Washington University; MFA, Kent State University.

## Application Requirements: Theatre

A student may declare a major in Theatre Arts after completion of 12 credits or more in theatre coursework, or by permission of the department chair.

## Application Requirements: Dance

A student may declare a major in Dance after placement in Modern Dance I and with the permission of the departmental advisor.

## Bachelor of Arts

### Dance with a Teaching Endorsement, BA

Department of Theatre and Dance, College of Fine and Performing Arts

#### Introduction/What is the Study of Dance?

In the course of their Dance studies, students will learn to understand and evaluate contemporary thinking about dance and related arts, while nurturing a physical and intellectual understanding of the language of movement that is reflective of and insightful toward the human condition.

#### Why Consider a Dance Major with a Teaching Endorsement?

The BA is a broadly based degree, with a liberal arts orientation, and is designed for students with a general interest in dance and its applications. BA candidates will focus on pedagogical and historic aspects of Dance Art as well as on the performance/generative components. They will be encouraged to demonstrate proficiency in pedagogy.

The BA Dance major leads to a baccalaureate degree without teacher certification. To receive a recommendation for state of Washington teacher certification, students must also complete the teacher certification program offered by the Department of Secondary Education as one of the following.

- A part of the undergraduate baccalaureate degree
- A post-baccalaureate program
- A part of the Master in Teaching program

See the Secondary Education section of the catalog for program admission, completion, and teacher certification requirements.

#### Contact Information

##### Major Information:

##### Associate Chair and Dance Coordinator

Cher Carnell  
High Street Hall 19  
360-650-3893  
Cher.Carnell@wwu.edu

##### Teacher Education

##### Admissions

Miller Hall 150  
360-650-3313  
<http://www.wce.wwu.edu/admiss>

##### Secondary Education

##### Professional Program Information Program

**Manager**  
Janna Cecka  
Miller Hall 401C  
360-650-3347  
Janna.Cecka@wwu.edu

#### Sample Careers

Teacher | Dance Educator | Arts Administration | Dance Studio Director

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

To declare, a student must have completed the following requirements:

- 15 college credits
- Modern placement of Level One or above.

Advising tips: Students should seek early departmental advising.

## Grade Requirements

Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

### Requirements

This endorsement must be taken with the following major and DNC 334:

- Dance, BA
- DNC 334

### Additional Requirements

Secondary Education Professional Program Requirements (68 credits)

- SEC 301 - Educational Psychology I: Development and Individual Differences
- SEC 302 - Educational Psychology II: Motivation, Learning and Assessment
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching Laboratory
- SEC 435 - Middle Level Practicum
- SEC 436 - Secondary School Practicum
- SEC 444 - Supporting Teaching and Learning with Technology
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

## Dance, BA

Theatre and Dance Department, College of Fine and Performing Arts

### 77-86 credits

#### Introduction/What is the Study of Dance?

In the course of their Dance studies, students will learn to understand and evaluate contemporary thinking about dance and related arts, while nurturing a physical and intellectual understanding of the language of movement that is reflective of and insightful toward the human condition.

#### Why Consider a Dance Major?

The BA is a broadly based degree, with a liberal arts orientation, and is designed for students with a general interest in dance and its applications. BA candidates will focus on pedagogical and historic aspects of Dance Art as well as on the performance/generative components. They will be encouraged to demonstrate proficiency in pedagogy. Dance majors develop multiple skills that are essential in all fields, including self-discipline, collaboration, patience and problem-solving.

#### Contact Information

##### Department Chair

Beth Leonard  
Performing Arts 395B

##### Major Information:

**Associate Chair and Dance Coordinator**  
Cher Carnell

# THEATRE AND DANCE

360-650-3880  
Beth.Leonard@wwu.edu

Commissary 113C  
360-650-3893  
Cher.Carnell@wwu.edu

## Sample Careers

Dance Educator | Arts Management | Dance Teacher | Community Dance Worker | Choreographer

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

<http://www.artjob.org/>

[http://graduatejobs.com/sub\\_login.htm](http://graduatejobs.com/sub_login.htm)

## How to Declare (Admission and Declaration Process):

To declare, a student must have completed the following requirements:

- 15 college credits
- Modern placement of Level One or above.

**Advising tips:** Students should seek early departmental advising.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- DNC 121 - Modern Dance I - Level 1
- DNC 122 - Modern Dance I - Level 2
- DNC 123 - Modern Dance I - Level 3
- DNC 221 - Modern Dance II - Level 1
- DNC 222 - Modern Dance II - Level 2
- DNC 223 - Modern Dance II - Level 3
- DNC 231 - Introduction to Dance in Western Cultures
- DNC 232 - Movement and Culture
- DNC 242 - Choreography I
- DNC 257 - Performance
- DNC 321 - Modern Dance III - Level 1
- DNC 322 - Modern Dance III - Level 2
- DNC 323 - Modern Dance III - Level 3
- DNC 339 - Functional Alignment
- DNC 340 - Anatomy for Dancers
- DNC 342 - Choreography II
- DNC 357 - Repertory
- DNC 431 - History of Western Dance Since 1450
- THTR 255 - Theatre Production: Technology
- 12-18 credits from:
  - DNC 211 - Ballet II - Level 1
  - DNC 212 - Ballet II - Level 2
  - DNC 213 - Ballet II - Level 3
  - DNC 311 - Ballet III - Level I
  - DNC 312 - Ballet III - Level II
  - DNC 313 - Ballet III - Level III

- ❑ One course from:
  - DNC 433 - Creative Movement for Educators With Lab
  - DNC 434 - Dance Arts in Education
- ❑ One course from:
  - THTR 210 - Foundations in Design Communication
  - THTR 212 - Introduction to Stage Technology
- ❑ One course from:
  - THTR 210 - Foundations in Design Communication
  - THTR 212 - Introduction to Stage Technology
  - THTR 216 - Introduction to Costuming
  - THTR 313 - Beginning Lighting Design
  - THTR 314 - Stage Management

## Theatre, BA

Department of Theatre and Dance, College of Fine and Performing Arts

### 61-67 Credits

#### Introduction/What is the Study of Theatre?

The Department of Theatre Arts strives to give students a well-rounded education. In addition to a core of practical theatre courses, students focus on one or more concentrations to hone their skills within specific areas of interest. Declared students reinforce their major studies through hands-on application of their skills. With an abundance of student programs and seasonal production opportunities, theatre students rarely find themselves without a project to do. The central goal of the degree is to provide students with a comprehensive understanding of theatre, including knowledge of its history, the means by which theatre is realized, and the role of theatre in forming the past, present and future of society.

#### Why Consider a Theatre Major?

The major is grounded in fundamentals and a student chooses one or more areas of specialization (Acting, Dramatic Writing, Educational Theatre, Technical Theatre, Theatre Management, Stage Management, Costume Design, Lighting Design and Scenic Design). In addition to preparing majors for careers in the academic or professional theatre, the lessons acquired through this course of study are readily transferable to careers in teaching, law, business and other areas where interpersonal and self-reliant skills are required.

#### Contact Information

##### Department Chair

Beth Leonard  
 Performing Arts 395B  
 360-650-3880  
 Beth.Leonard@wwu.edu

##### Program Coordinator

Teri Hall  
 Performing Arts 395B  
 360-650-3876  
 Teri.Hall@wwu.edu

#### Sample Careers

Actor/Actress | Graphic Designer | House Management | Master Electrician | Costume Designer | Advertising/Marketing Manager | Talent Scout | Lighting Designer | Stage Manager | Events Coordinator | Props Designer | Technical Director | Set Designer | Booking Agent | Marketing Communications Specialist

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

To declare, a student must have completed the following requirements:

## THEATRE AND DANCE

- 9-12 credits (with a 3.0 or higher) from the following list of Theatre classes: THTR 101, 160, 201, 212, 213, 216, 228, or 260

See the Department of Theatre Arts Office (PA 395) to declare the major. At the time of your declaration you will be assigned a faculty advisor who will help you navigate through the Theatre major.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

### Requirements

- THTR 101 - Introduction to the Art of the Theatre
- THTR 212 - Introduction to Stage Technology
- THTR 216 - Introduction to Costuming
- THTR 228 - Understanding Plays
- THTR 255 - Theatre Production: Technology
- THTR 370 - Play Direction
- THTR 380 - Theatre History I
- THTR 381 - Theatre History II
- THTR 382 - Theatre History III
- THTR 384 - Introduction to Dramatic Writing
- THTR 496 - Senior Project
- One course from:
  - THTR 160 - Introduction to Acting
  - THTR 260 - Acting Studio I: Theory
- Two topics courses selected from:
  - THTR 428 - Major Dramatists
- **Concentration selected from one of the following areas:**
  - **Acting:**
    - THTR 260 - Acting Studio I: Theory
    - THTR 261 - Acting Studio I: Scene Study
    - THTR 264 - Movement Studio I: Grotowski
    - THTR 360 - Acting Studio II: Physical Interpretation of a Role
    - THTR 361 - Acting Studio II: Vocal Interpretation of a Role
    - THTR 364 - Movement Studio II: Suzuki/Viewpoints
  - **Dramatic Writing:** Three different topic courses selected from:
    - THTR 485 - Dramatic Writing Workshop  
plus 7 credits under advisement
  - **Educational Theatre:**
    - THTR 350 - Theatre for Youth
    - THTR 450 - Theatre for Youth II
    - THTR 452 - Secondary Theatre TechniquesOne course from the following group:
    - THTR 398 - Integrated Arts for Elementary Educators
    - DNC 398 - Integrated Arts for Elementary Educators
    - MUS 398 - Integrated Arts for Elementary Educators
    - ART 398 - Integrated Arts for Elementary Educators  
plus 6 credits under advisement

❑ **Technical Theatre:**

- THTR 210 - Foundations in Design Communication
- THTR 213 - Stage Technology Practicum
- THTR 310 - Scene Painting
- THTR 313 - Beginning Lighting Design
- THTR 314 - Stage Management
- THTR 320 - Computer Drafting and Design for the Theatre
- THTR 355 - Intermediate Theatre Technology
- THTR 455 - Advanced Production and Design

❑ **Theatre Management:**

- THTR 210 - Foundations in Design Communication
- THTR 213 - Stage Technology Practicum
- THTR 314 - Stage Management
- THTR 355 - Intermediate Theatre Technology
- THTR 414 - Theatre Business Practices
- ACCT 240 - Financial Accounting  
plus 3 credits under advisement

❑ **Stage Management:**

- THTR 210 - Foundations in Design Communication
- THTR 213 - Stage Technology Practicum
- THTR 311 - Beginning Scene Design
- THTR 313 - Beginning Lighting Design
- THTR 314 - Stage Management
- THTR 320 - Computer Drafting and Design for the Theatre
- THTR 355 - Intermediate Theatre Technology
- THTR 414 - Theatre and Business Practices
- THTR 455 - Advanced Production and Design

❑ **Costume Design:**

- THTR 210 - Foundations in Design Communication
- THTR 213 - Stage Technology Practicum
- THTR 215 - Stage Make-Up
- THTR 313 - Beginning Lighting Design
- THTR 316 - Beginning Costume Design
- THTR 355 - Intermediate Theatre Technology
- THTR 383 - Costume History
- THTR 416 - Advanced Costume Design
- THTR 420 - Advanced Theatre Design and Portfolio Development

❑ **Lighting Design:**

- THTR 210 - Foundations in Design Communication
- THTR 213 - Stage Technology Practicum
- THTR 311 - Beginning Scene Design
- THTR 313 - Beginning Lighting Design
- THTR 320 - Computer Drafting and Design for the Theatre
- THTR 355 - Intermediate Theatre Technology
- THTR 413 - Advanced Lighting Design
- THTR 420 - Advanced Theatre Design and Portfolio Development

❑ **Scenic Design:**

- THTR 210 - Foundations in Design Communication
- THTR 213 - Stage Technology Practicum



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- THTR 310 - Scene Painting
- THTR 311 - Beginning Scene Design
- THTR 313 - Beginning Lighting Design
- THTR 320 - Computer Drafting and Design for the Theatre
- THTR 355 - Intermediate Theatre Technology
- THTR 411 - Advanced Scenic Design
- THTR 420 - Advanced Theatre Design and Portfolio Development

## Bachelor of Fine Arts

### Dance, BFA

Department of Theatre and Dance, College of Fine and Performing Arts

### 94-103 credits

#### Introduction/What is the Study of Dance?

In the course of their Dance studies, students will learn to understand and evaluate contemporary thinking about dance and related arts, while nurturing a physical and intellectual understanding of the language of movement that is reflective of and insightful toward the human condition.

#### Why Consider a Dance Major with a Bachelor of Fine Arts Degree?

The BFA Program in Dance is a professionally oriented degree, which presumes that students are seriously interested in the process of performing or choreographing and wish to make it their career. The BFA degree is a highly selective program which trains exceptionally committed, disciplined, and talented students to the level at which they might gain entry to a leading graduate, conservatory, or MFA Program, or directly enter one of the areas of the dancing profession.

#### Contact Information

##### Department Chair

Beth Leonard  
Performing Arts 395B  
360-650-3880  
Beth.Leonard@wwu.edu

##### Major Information:

**Associate Chair and Dance Coordinator**  
Cher Carnell  
Commissary 113C  
360-650-3893  
Cher.Carnell@wwu.edu

#### Sample Careers

Professional Dancer | Choreographer | Dance Therapist | Arts Management | Dance Educator | Dance Notation | Professor

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)  
<http://www.artjob.org/>

#### How to Declare (Admission and Declaration Process):

**Admissions:** The BFA is by invitation only.

Faculty vote to select students recognized as qualified for the BFA.

**Application deadlines:** Interested students apply spring of their junior year.

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- DNC 121 - Modern Dance I - Level 1
- DNC 122 - Modern Dance I - Level 2
- DNC 123 - Modern Dance I - Level 3
- DNC 221 - Modern Dance II - Level 1
- DNC 222 - Modern Dance II - Level 2
- DNC 223 - Modern Dance II - Level 3
- DNC 231 - Introduction to Dance in Western Cultures
- DNC 232 - Movement and Culture
- DNC 242 - Choreography I
- DNC 257 - Performance
- DNC 321 - Modern Dance III - Level 1
- DNC 322 - Modern Dance III - Level 2
- DNC 323 - Modern Dance III - Level 3
- DNC 339 - Functional Alignment
- DNC 340 - Anatomy for Dancers
- DNC 342 - Choreography II
- DNC 345 - Fundamentals of Contemporary Partnering
- DNC 357 - Repertory
- DNC 403 - Senior Seminar
- DNC 404 - Capstone Preparation
- DNC 421 - Modern Dance IV - Level 1
- DNC 422 - Modern Dance IV - Level 2
- DNC 423 - Modern Dance IV - Level 3
- DNC 431 - History of Western Dance Since 1450
- DNC 442 - Advanced Choreography
- THTR 255 - Theatre Production: Technology
- 12-18 credits from:
  - DNC 211 - Ballet II - Level 1
  - DNC 212 - Ballet II - Level 2
  - DNC 213 - Ballet II - Level 3
  - DNC 311 - Ballet III - Level I
  - DNC 312 - Ballet III - Level II
  - DNC 313 - Ballet III - Level III
- One course from:
  - DNC 433 - Creative Movement for Educators With Lab
  - DNC 434 - Dance Arts in Education
- One course from:
  - THTR 210 - Foundations in Design Communication
  - THTR 212 - Introduction to Stage Technology
- One course from:
  - THTR 210 - Foundations in Design Communication
  - THTR 212 - Introduction to Stage Technology
  - THTR 216 - Introduction to Costuming
  - THTR 313- Beginning Lighting Design
  - THTR 314 - Stage Management

## Additional Endorsement

### Dance Additional Teaching Endorsement

Department of Theatre and Dance, College of Fine and Performing Arts

#### 20 credits

#### Introduction/What is the Study of Dance?

Students completing a teacher certification program and endorsable major in a subject other than Dance may qualify for an additional endorsement in Dance by completing requirements listed below. See the Woodring College of Education section of this catalog for more information on teacher certification programs and approved majors.

#### Why Consider a Teaching Endorsement in Dance?

##### Contact Information

##### Department Chair

Beth Leonard

Performing Arts 395B

360-650-3880

Beth.Leonard@wwu.edu

##### Teaching Endorsement Information:

Academic Department Manager

##### Sample Careers

##### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

#### Grade Requirements

Dance courses required for a state teaching endorsement and courses in the secondary education professional program must be completed with a grade of C (2.0) or better.

#### Requirements

- DNC 101 - Open Ballet
- DNC 102 - Open Modern Dance
- DNC 231 - Introduction to Dance in Western Cultures
- DNC 232 - Movement and Culture
- DNC 334 - Music and Movement
- DNC 339 - Functional Alignment
- DNC 433 - Creative Movement for Educators With Lab
- THTR 255 - Theatre Production: Technology

### Theatre Arts P-12, Additional Teaching Endorsement

Department of Theatre and Dance, College of Fine and Performing Arts

#### 31 Credits

**Introduction/What is the Study of Theatre Arts?**

Completion of the following courses leads to an additional endorsement in theatre arts when accompanied by a first endorsement in another content area. See the Theatre Arts Education advisor for additional suggested reading resources. To receive a recommendation for state of Washington teacher certification, students must complete a professional preparation program. See the Elementary Education and Secondary Education sections of this catalog for program admission, completion, and teacher certification requirements.

**Why Consider a Teaching Endorsement in Theatre Arts P-12?**

## Contact Information

**Department Chair**

Beth Leonard

Performing Arts 395B

360-650-3880

Beth.Leonard@wwu.edu

## Sample Careers

**Teaching Endorsement Information:****Academic Department Manager**

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)**How to Declare (Admission and Declaration Process):****Grade Requirements**

Course required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

## Requirements

- THTR 101 - Introduction to the Art of the Theatre
- THTR 160 - Introduction to Acting
- THTR 212 - Introduction to Stage Technology
- THTR 228 - Understanding Plays
- THTR 255 - Theatre Production: Technology
- THTR 314 - Stage Management
- THTR 350 - Theatre for Youth
- THTR 351 - Creative Pedagogy
- THTR 370 - Play Direction
- THTR 452 - Secondary Theatre Techniques

**Elementary Education Professional Program Requirements (103-104 credits)**

Department of Elementary Education, Woodring College of Education

**Introduction**

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

**Admission and Declaration Process**

Admission Requirements

# THEATRE AND DANCE

## Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

### Professional Studies Core (25 credits)

- ELED 301 - Educational Psychology I: Development and Individual Differences
- ELED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Basic Instructional Technology Skills
- I T 442 - Classroom Use of Instructional Technology (Elementary)
- SPED 364 - Teaching Each Student

### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-79 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
  - ELED 425 - Social Studies for the Elementary School
  - ELED 470 - Developing Teaching
  - ELED 471 - Documenting Teaching
  - ELED 480 - Literacy: Beginning Communicators
  - ELED 481 - Literacy: Fluent Communicators
  - ELED 491 - September Experience
  - ELED 492 - Practicum: Experience in Literacy Methods
  - ELED 494 - Internship - Elementary
  - HLED 455 - Health Education Grades K-8
  - MATH 381 - Teaching K-8 Mathematics I
  - MATH 382 - Teaching K-8 Mathematics II
  - MATH 383 - Teaching K-8 Mathematics III
  - MATH 491 - Internship Seminar - Teaching K-8 Mathematics
  - PE 345 - Physical Education for Elementary School
  - SCED 480 - Science Methods and Curriculum for the Elementary School
  - SCED 490 - Laboratory/Field Experience in Elementary Science

### Secondary Education Professional Program Requirements (68 credits)

- SEC 301 - Educational Psychology I: Development and Individual Differences
- SEC 302 - Educational Psychology II: Motivation, Learning and Assessment
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools

- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching Laboratory
- SEC 435 - Middle Level Practicum
- SEC 436 - Secondary School Practicum
- SEC 444 - Supporting Teaching and Learning with Technology
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

## Minor

### Dance Minor

Department of Theatre and Dance, College of Fine and Performing Arts

**32-34 credits**

#### Introduction/What is the Study of Dance?

#### Why Consider a Dance Minor?

#### Contact Information

##### Department Chair

Beth Leonard  
 Performing Arts 395B  
 360-650-3880  
 Beth.Leonard@wwu.edu

##### Minor Information:

**Academic Department Manager**

#### Sample Careers

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- DNC 121 - Modern Dance I - Level 1
- DNC 122 - Modern Dance I - Level 2
- DNC 123 - Modern Dance I - Level 3
- DNC 211 - Ballet II - Level 1
- DNC 221 - Modern Dance II - Level 1
- DNC 222 - Modern Dance II - Level 2
- DNC 223 - Modern Dance II - Level 3

# THEATRE AND DANCE

- DNC 231 - Introduction to Dance in Western Cultures
- DNC 257 - Performance
- or DNC 357 - Repertory
- DNC 339 - Functional Alignment
- 3-6 credits (under advisement) selected from the following:
  - DNC 232 - Movement and Culture
  - DNC 311 - Ballet III - Level I
  - DNC 312 - Ballet III - Level II
  - DNC 313 - Ballet III - Level III
  - DNC 321 - Modern Dance III - Level 1
  - DNC 340 - Anatomy for Dancers
  - DNC 342 - Choreography II
  - DNC 434 - Dance Arts in Education
  - DNC 442 - Advanced Choreography
  - THTR 210 - Foundations in Design Communication  
or THTR 212 - Introduction to Stage Technology
  - THTR 212 - Introduction to Stage Technology
  - THTR 216 - Introduction to Costuming
  - THTR 255 - Theatre Production: Technology (up to 2 credits)

## Theatre Minor

Department of Theatre and Dance, College of Fine and Performing Arts

### 30 Credits

### Introduction/What is the Study of Theatre?

### Why Consider a Theatre Minor?

#### Contact Information

#### Department Chair

Beth Leonard  
Performing Arts 395B  
360-650-3880  
Beth.Leonard@wwu.edu

#### Sample Careers

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- THTR 101 - Introduction to the Art of the Theatre

- THTR 160 - Introduction to Acting
- THTR 212 - Introduction to Stage Technology
- THTR 228 - Understanding Plays
- THTR 370 - Play Direction
  - One course from:
    - THTR 380 - Theatre History I
    - THTR 381 - Theatre History II
    - THTR 382 - Theatre History III
    - THTR 428 - Major Dramatists
  - One course from:
    - THTR 213 - Stage Technology Practicum
    - THTR 216 - Introduction to Costuming
    - THTR 260 - Acting Studio I: Theory
    - THTR 314 - Stage Management
    - THTR 384 - Introduction to Dramatic Writing
  - Electives under advisement

## Dance Courses

### **DNC 100 - Mod-Hop I**

Entry level technique class that is a fusion of contemporary dance styles, including hip-hop, African jazz and modern dance. Emphasis on rhythm, conditioning, isolation and individuality. Repeatable to a maximum of 6 credits. S/U grading.

Credits: 2

Grade Mode: S/U

### **DNC 101 - Open Ballet**

No dance experience required. Basic principles of the ballet as an artistic and physical medium. Introduction to ballet terminology, basic barre exercises, simple combinations in adagio and allegro. Repeatable to a maximum of 6 credits. S/U grading.

Credits: 2

Grade Mode: S/U

### **DNC 102 - Open Modern Dance**

No dance experienced required. The study of the basic principles of movement: space, time and effort. Emphasis on alignment and range of motion, creative movement and an appreciation of dance as an art form. Open to non-minors. Repeatable to a maximum of 6 credits. S/U grading.

Credits: 2

Grade Mode: S/U

### **DNC 108 - Introduction to the Fine Arts: the Classics**

This course focuses on those artists whose greatness has withstood the test of time, in Art, Dance, Music and Theatre. Guest lecturers, readings, discussions and reflective papers will explore connective threads of those individual artists who have made extraordinary contributions to society and culture.

Credits: 3

GUR Attributes: HUM

### **DNC 111 - Ballet I - Level 1**

Introduction to the basic principles of the ballet as an artistic and physical medium. Emphasis on French terminology, basic barre exercises, simple combinations in adagio and allegro. Open to non-majors. Repeatable to a maximum of 4 credits.

Credits: 2

### **DNC 112 - Ballet I - Level 2**

Builds on principles introduced in DNC 111, including the basic principle of the ballet as an artistic and physical medium. Emphasis on French terminology, basic barre exercises, simple



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combinations in adagio and allegro. Open to non-majors. Repeatable to a maximum of 4 credits.

**Prerequisites & Notes:** Permission of instructor or DNC 111  
Credits: 2

### **DNC 113 - Ballet I - Level 3**

Builds on principles introduced in DNC 112, including the basic principles of the ballet as an artistic and physical medium. Emphasis on French terminology, basic barre exercises, simple combinations in adagio and allegro. Open to non-majors. Repeatable to a maximum of 4 credits.

**Prerequisites & Notes:** Permission of instructor or DNC 112.  
Credits: 2

### **DNC 121 - Modern Dance I - Level 1**

The study of the basic principles of movement: space, time, effort. Emphasis on alignment and range of motion, creative movement and an appreciation of dance as an art form. Repeatable to maximum of 6 credits.

Credits: 3

### **DNC 122 - Modern Dance I - Level 2**

The study of the basic principles of movement: space, time, effort. Emphasis on alignment and range of motion, creative movement and an appreciation of dance as an art form. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** Permission of instructor or DNC 121.  
Credits: 3

### **DNC 123 - Modern Dance I - Level 3**

The study of the basic principles of movement: space, time, effort. Emphasis on alignment and range of motion, creative movement and an appreciation of dance as an art form. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** DNC 122 or permission of instructor.  
Credits: 3

### **DNC 200 - Mod-Hop II**

More advanced exploration of contemporary dance styles, including hip-hop, African jazz, and modern dance. Emphasis on complex rhythm, phrasing and performance. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** DNC 100 or permission of instructor.  
Credits: 2

### **DNC 203 - Jazz Dance**

This course focuses on the technical and expressive aspects of jazz dance and develops awareness of line, speed, balance and strength. Attention is placed on alignment, conditioning, musicality, and synthesis of combinations.

**Prerequisites & Notes:** Instructor permission; by audition.  
Credits: 2

### **DNC 208 - Contact Improvisation**

This course explores the fundamentals of improvising with another dancer(s), primarily employing the momentum and support derived through physical contact with one's partner. Improvisation and partnering are skills essential to a dancer's development as genuine creators and performers. Repeatable up to 4 credits.

**Prerequisites & Notes:** Dance major or minor, or permission of instructor.  
Credits: 2  
Grade Mode: S/U

### **DNC 211 - Ballet II - Level 1**

Further development in principles of ballet. Increased difficulty and terminology. Preparation for advanced levels. Repeatable to a maximum of 6 credits, including original course.

**Prerequisites & Notes:** Permission of instructor; DNC 111, 112 and 113 recommended.  
Credits: 2

### **DNC 212 - Ballet II - Level 2**

Further development in principles of ballet. Increased difficulty and terminology. Preparation for advanced levels. Repeatable to a maximum of 6 credits, including original course.

**Prerequisites & Notes:** Permission of instructor; DNC 211 recommended.  
Credits: 2

### **DNC 213 - Ballet II - Level 3**

Further development in principles of ballet. Increased difficulty and terminology. Preparation for advanced levels. Repeatable to a maximum of 6 credits, including original course.

**Prerequisites & Notes:** Permission of instructor; DNC 212 recommended.  
Credits: 2

### **DNC 221 - Modern Dance II - Level 1**

Further development in movement principles established in Modern Dance I. Repeatable to a maximum of 6 credits, including original course.

**Prerequisites & Notes:** Permission of instructor; DNC 121, 122, 123 recommended.  
Credits: 3

### **DNC 222 - Modern Dance II - Level 2**

Continues with further development in movement principles established in Modern Dance I. Repeatable to a maximum of 6 credits, including original course.

**Prerequisites & Notes:** Permission of instructor; DNC 221 recommended.  
Credits: 3

### **DNC 223 - Modern Dance II - Level 3**

Continues with further development in movement principles established in Modern Dance I. Repeatable to a maximum of 6 credits, including original course.

**Prerequisites & Notes:** Permission of instructor; DNC 222 recommended.  
Credits: 3

### **DNC 230 - Making Movement Art**

First-year students only. An investigation of how dances are made. Students will be exposed to movement art through readings, lectures, videos, live performances, interviews, out of class observations, and laboratory experiences. Students will also have the opportunity to interact with several dance faculty and guest artists as well as

faculty in other departments of the College of Fine and Performing Arts.

**Prerequisites & Notes:** First-year students.  
Credits: 3  
GUR Attributes: HUM

### **DNC 231 - Introduction to Dance in Western Cultures**

An historical and cultural overview, from the primitive to the contemporary, of the development of dance as an art form in Western civilization.

Credits: 3  
GUR Attributes: CCOM

### **DNC 232 - Movement and Culture**

An investigation of movement and dance as a vehicle for understanding culture through movement labs, readings, films and discussions.

Credits: 3  
GUR Attributes: ACGM

### **DNC 242 - Choreography I**

Introduction to basic principles of choreography: articulating a concept, finding movement vocabulary, and developing a structure. Prepares students to handle the rehearsal process from the point of view of a choreographer. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** Concurrent enrollment in DNC 221 or instructor permission  
Credits: 3

### **DNC 243 - Dance and Technology I**

Introduction to sound and video editing software and filming/framing techniques for use in the creation of Dances for Camera and other time based art. Repeatable up to a maximum of 6 credits.

**Prerequisites & Notes:** DNC 242.  
Credits: 3

### **DNC 257 - Performance**

Direct instruction and experience in performance work. Repeatable to a maximum of 8 credits. S/U grading.

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**Prerequisites & Notes:** being cast in a faculty-directed production

Credits: 2

Grade Mode: S/U

### **DNC 311 - Ballet III - Level I**

Comprehensive barre and center floor work with emphasis on strength, flexibility, stamina, musicality, and performance projection in all areas of the class enchainements. Variations from classical ballet repertoire may be included.

Repeatable to a maximum of 12 credits, including the original course.

**Prerequisites & Notes:** Permission of instructor; DNC 211, DNC 212, DNC 213 recommended.

Credits: 3

### **DNC 312 - Ballet III - Level II**

Comprehensive barre and center floor work with emphasis on strength, flexibility, stamina, musicality, and performance projection in all areas of the class enchainements. Variations from classical ballet repertoire may be included.

Repeatable to a maximum of 12 credits, including the original course.

**Prerequisites & Notes:** Permission of instructor; DNC 311 recommended.

Credits: 3

### **DNC 313 - Ballet III - Level III**

Comprehensive barre and center floor work with emphasis on strength, flexibility, stamina, musicality, and performance projection in all areas of the class enchainements. Variations from classical ballet repertoire may be included.

Repeatable to a maximum of 12 credits, including the original course.

**Prerequisites & Notes:** Permission of instructor; DNC 312 recommended.

Credits: 3

### **DNC 321 - Modern Dance III - Level 1**

Advanced studies of movement principles established in Modern Dance II. Repeatable to a maximum of 12 credits, including original course.

**Prerequisites & Notes:** Permission of instructor; DNC 221, DNC 222, DNC 223 and DNC 339

recommended.

Credits: 3

### **DNC 322 - Modern Dance III - Level 2**

Advanced studies of movement principles established in Modern Dance II. Repeatable to a maximum of 12 credits, including original course.

**Prerequisites & Notes:** Permission of instructor; DNC 321, DNC 339 recommended.

Credits: 3

### **DNC 323 - Modern Dance III - Level 3**

Advanced studies of movement principles established in Modern Dance II. Repeatable to a maximum of 12 credits, including original course.

**Prerequisites & Notes:** Permission of instructor; DNC 322, DNC 339 recommended.

Credits: 3

### **DNC 334 - Music and Movement**

An interdisciplinary examination of music and movement that addresses rhythmic acuity for the dancer, accompaniment for the dance teacher and underscoring dance for the choreographer.

Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** DNC 221, DNC 222, DNC 223 or formal music instruction at the 100 level or permission of instructor.

Credits: 2

### **DNC 339 - Functional Alignment**

An internal exploration of functional alignment and its practical application towards movement and dancing. Experiential exercises that will enable the development and increased awareness of anatomical alignment and its relationship to range of motion, flexibility, strength, and movement potential. Introduction to proper anatomical and kinesiological terminology. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** DNC 121, DNC 122, DNC 123 or permission of instructor.

Credits: 3

### **DNC 340 - Anatomy for Dancers**

An investigation of the human body and how it works. Through lectures, readings and laboratory

experiences, students will analyze skeletal systems, individual differences, common dance injuries, and proper conditioning for dancers.

**Prerequisites & Notes:** DNC 339 or permission of instructor.

Credits: 4

### **DNC 342 - Choreography II**

Further study of the principles of choreography. In addition to concepts, movement, vocabulary and structure this class involves experimentation with theme and development, use of music, as well as construction/deconstruction/reconstruction of choreographic forms and content. Training the thinking artist and the artistic thinker. Repeatable to a maximum of 8 cr.

**Prerequisites & Notes:** DNC 242.

Credits: 4

### **DNC 343 - Dance and Technology II**

Builds on skills learned in DNC 243 and applies an artistic process to the use of editing software and video equipment; combining visual design, choreographic skills and advanced filming and editing techniques to create Dances for the Camera and other time based art. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** DNC 223, DNC 243, DNC 342.

Credits: 3

### **DNC 345 - Fundamentals of Contemporary Partnering**

Students explore elements of contemporary partnering including transfer of weight, momentum/leverage, counter balancing and moving in harmony. The class is not gender specific. The warm-up includes exercises to enhance kinesthetic awareness and to facilitate ease and comfort in lifting and being lifted. Repeatable to a maximum of 6 cr.

**Prerequisites & Notes:** DNC 221, DNC 222, DNC 223 or permission of instructor.

Credits: 2

### **DNC 357 - Repertory**

The process work, which leads to performance, involved in the creation and/or reconstruction of a major choreographic work. Repeatable to a maximum of 8 credits.

Credits: 2

### **DNC 398 - Integrated Arts for Elementary Educators**

This arts education course provides future teachers with a foundation in the elements and principles of Visual Art, Dance, Music and Theatre and their applicability to the elementary classroom. Also offered as ART 398, MUS 398 and THTR 398.

**Prerequisites & Notes:** Admission to a teacher education program leading to an elementary endorsement.

Credits: 3

### **DNC 403 - Senior Seminar**

This course is designed for senior Dance majors to focus on skills and knowledge important for a successful transition to graduate school or professional employment in dance.

Credits: 1

### **DNC 404 - Capstone Preparation**

This course is designed to assist BFA candidates with their rehearsal processes, as performers and as choreographers, in preparation for and presentation of their culminating Capstone performances.

**Prerequisites & Notes:** BFA degree candidacy, senior status.

Credits: 1

### **DNC 421 - Modern Dance IV - Level 1**

A performance approach to dance techniques - phrasing, musicality and clarity of intentions are emphasized at this level. Repeatable to a maximum of 12 credits, including original course.

**Prerequisites & Notes:** Permission of instructor; DNC 321, DNC 322, DNC 323 recommended.

Credits: 3

### **DNC 422 - Modern Dance IV - Level 2**

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A performance approach to dance techniques - phrasing, musicality and clarity of intentions are emphasized at this level. Repeatable to a maximum of 12 credits, including original course.

**Prerequisites & Notes:** Permission of instructor; DNC 421 recommended.  
Credits: 3

### **DNC 423 - Modern Dance IV - Level 3**

A performance approach to dance techniques - phrasing, musicality and clarity of intentions are emphasized at this level. Repeatable to a maximum of 12 credits, including original course.

**Prerequisites & Notes:** Permission of instructor; DNC 422 recommended.  
Credits: 3

### **DNC 430 - Real Life Skills for Dancers**

This course helps students to explore their personal goals, aesthetics involved in goal setting, and to develop a resume and Capstone portfolio. The course will examine emotional and physical well-being as well as graduate education and career opportunities in dance.

**Prerequisites & Notes:** Dance major with junior/senior status.  
Credits: 2

### **DNC 431 - History of Western Dance Since 1450**

Ballet and modern dance forms of Western culture from the Renaissance into the era of contemporary movement art. Will include reviews of live performances, and study of leading dance artists and their historical significance. This course explores effective writing in the discipline of Dance through reflection, critical analysis, and historical research.

**Prerequisites & Notes:** DNC 231  
Credits: 4

### **DNC 433 - Creative Movement for Educators With Lab**

Methodologies of teaching creative movement to children. Exploration and integration of the elements of space, time, and effort as reflective of the Essential Academic Learning Requirements in

the dance arts.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 4

### **DNC 434 - Dance Arts in Education**

Materials for the methodology of teaching the formal dance techniques of modern dance and ballet for students of the dance major and additional teaching endorsement. Observations and teaching opportunities included.

**Prerequisites & Notes:** DNC 339, DNC 340; demonstrated competency at the advanced level of technique.  
Credits: 3

### **DNC 442 - Advanced Choreography**

Practical application of choreographic process in the performance setting. Experience in collaboration with costume and lighting designers to support and realize choreographic intention by means of the unity of supporting elements. Repeatable to a maximum of 8 credits.

**Prerequisites & Notes:** DNC 342 or instructor permission  
Credits: 4

## Theatre Arts Courses

### **THTR 101 - Introduction to the Art of the Theatre**

An introduction to the nature of the theatre, to plays and the way they work, and to the arts of the theatre and the activities of those who perform them.

Credits: 3  
GUR Attributes: HUM

### **THTR 160 - Introduction to Acting**

Fundamentals of acting with emphasis on basic techniques and tools used by the actor. Includes improvisation; resume writing; auditioning; and vocal, physical and emotional awareness.

Credits: 3

**THTR 168 - Introduction to Film: Acting and Production**

Introduction to rudimentary acting and production techniques, including professional conduct, script analysis and audition process.

**Prerequisites & Notes:** THTR 101, THTR 160.  
Credits: 3

**THTR 201 - Introduction to the Cinema**

Training eye and ear to appreciate the work of the filmmaker. Analysis of the basic conventions of technique with an emphasis on critical exposition.

Credits: 3  
GUR Attributes: HUM

**THTR 202 - Film Genre**

Exploring the development, structure, conventions, aesthetics, historical and cultural facets that comprise a specific genre in film. Examples include Film Noir, Western, Horror, etc.

Credits: 3  
GUR Attributes: HUM

**THTR 210 - Foundations in Design Communication**

Introduction to theatre design concepts and principles, art techniques and theatre design critical language. Exploration of art media, drawing, painting and design presentation in relation to theatre design through dramatic analysis and design expression.

Credits: 3

**THTR 212 - Introduction to Stage Technology**

Basic theory of planning, drafting, construction and rigging for stagecraft and lighting technology.

Credits: 4

**THTR 213 - Stage Technology Practicum**

Practice of basic theory in stagecraft and theatre technology. 12 hours of lab required.

**Prerequisites & Notes:** THTR 212 or permission of instructor.  
Credits: 4

**THTR 215 - Stage Make-Up**

Theory and practice of applying makeup for the stage with emphasis on character development, facial anatomy and aging.

Credits: 1

**THTR 216 - Introduction to Costuming**

Introduction to costume technology, design and color theory, play analysis, costume history, and drawing/rendering techniques. 8 hours of lab work required.

**Prerequisites & Notes:** THTR 101 recommended.  
Credits: 3

**THTR 228 - Understanding Plays**

Reading a playscript with an eye to theatrical production. Introduction to primary dramatic forms (tragedy, comedy). Practice in speaking and writing intelligently about plays.

**Prerequisites & Notes:** THTR 101 or permission of instructor  
Credits: 3

**THTR 255 - Theatre Production: Technology**

Practical hands-on experience in production: rehearsal and/or run crew with lighting, sound, costumes, scenery, makeup, etc. Repeatable up to 3 times. S/U grading.

**Prerequisites & Notes:** THTR 212 or permission of instructor.  
Credits: 1  
Grade Mode: S/U

**THTR 256 - Rehearsal and Performance**

For theatre majors (before 50 hours in major) and non-majors: practical experience in rehearsal and performance. S/U grading.

**Prerequisites & Notes:** Permission of Instructor.  
Credits: 2  
Grade Mode: S/U

**THTR 257 - Theatre Production: Performance**

For theatre majors and non-majors: direct instruction and experience in performance work. S/U grading.

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**Prerequisites & Notes:** Permission of Instructor.  
Credits: 2  
Grade Mode: S/U

## **THTR 260 - Acting Studio I: Theory**

Exploration of the theory of the physical, vocal, intellectual and emotional instrument of the individual actor in relation to character demands of a scene or play through the studio approach. Students demonstrate their knowledge of theory in both written and oral forms.

**Prerequisites & Notes:** Audition and permission of instructor.  
Credits: 3

## **THTR 261 - Acting Studio I: Scene Study**

Application of the actor/character theory learned in THTR 260 is presented in at least two different scenes which the instructor must approve. It is in the actor's self-interest that, while in the category of American realism, each selection should offer a different writing style.

**Prerequisites & Notes:** Permission of Instructor.  
Credits: 3

## **THTR 263 - Movement for Actors**

An actor's introduction to the history, vocabulary and basic techniques of several styles of theatrical movement and dance. Topics may include ballet, modern, jazz, tap, hip-hop, mask, combat and period styles. The actor will also explore character development through movement and dance. Repeatable to a maximum of 6 cr.

Credits: 2

## **THTR 264 - Movement Studio I: Grotowski**

An introduction to Jerzy Grotowski's approach to acting, resulting in scenework based on emotional need discovered through movement.

**Prerequisites & Notes:** THTR 260  
Credits: 3

## **THTR 310 - Scene Painting**

A survey of traditional scene painting with emphasis on color, technique, materials, tools and formulas.

**Prerequisites & Notes:** THTR 212.  
Credits: 3

## **THTR 311 - Beginning Scene Design**

Theory and practical experience in communicating technical and artistic information through drafting and color-rendering.

**Prerequisites & Notes:** THTR 210, THTR 212.  
Credits: 3

## **THTR 313 - Beginning Lighting Design**

Technical and artistic study of light and color as they affect other theatre arts and contribute to artistic design; laboratory work in production.

**Prerequisites & Notes:** THTR 213, THTR 311.  
Credits: 3

## **THTR 314 - Stage Management**

An in-depth study of the stage manager's role and responsibilities before, during and after production. Assignment to one major production.

**Prerequisites & Notes:** 2 credits of acting and THTR 212.  
Credits: 3

## **THTR 316 - Beginning Costume Design**

Theory, critical language, play analysis and studio experience for design and rendering of costumes for the stage.

**Prerequisites & Notes:** THTR 210, THTR 216 or instructor permission  
Credits: 3

## **THTR 318 - Puppetry**

Design, construction and manipulation of puppets with focus on the history of puppets and puppet making.

Credits: 3

## **THTR 319 - Millinery**

History, design and construction of hats for the theatre.

**Prerequisites & Notes:** THTR 216  
Credits: 2

**THTR 320 - Computer Drafting and Design for the Theatre**

Practical working knowledge of drafting and design software.

**Prerequisites & Notes:** THTR 101, THTR 210, THTR 211, THTR 212, THTR 213 or permission of instructor.

Credits: 3

**THTR 328 - Writing for Theatre**

Writing for the theatre discipline: including review and critique, technical writing and methods of research and citation.

**Prerequisites & Notes:** ENG 101 and THTR 228.

Credits: 3

**THTR 330 - Beginning Theatre Pedagogy**

A teaching assistant discussion/observation course designed to provide theatre students with experience and guidance in assisting an instructor in a particular theatre course. Repeatable up to 4 credits.

**Prerequisites & Notes:** instructor permission

Credits: 1-2

**THTR 350 - Theatre for Youth**

Exploration of the history, philosophy, literature and techniques for creating theatre for young audiences.

Credits: 3

**THTR 351 - Creative Pedagogy**

Instructional methods in theatre arts, design, analysis and practical application of theatre arts techniques and pedagogy through observation, seminar and practicum in the theatre department.

**Prerequisites & Notes:** Permission of instructor.

Credits: 4

**THTR 353 - Touring Theatre I**

An intensive and comprehensive involvement in the study and practice of creating and performing theatre for youth. This is a two-quarter commitment. Repeatable once for a maximum of 6 credits.

**Prerequisites & Notes:** Permission of instructor.

Credits: 3

**THTR 354 - Touring Theatre II**

Participants prepare all aspects of a touring production and accompanying educational support materials offered to elementary or secondary schools in Washington. This is a two-quarter commitment. Repeatable once for a maximum of 6 credits.

**Prerequisites & Notes:** THTR 353 and permission of instructor.

Credits: 3

**THTR 355 - Intermediate Theatre Technology**

Directly supervised practice of theatre crafts relating to a design, management or technology concentration.

**Prerequisites & Notes:** THTR 210, THTR 212, THTR 213, THTR 216 or instructor permission

Credits: 2

**THTR 356 - Rehearsal and Performance II**

For theatre majors (after 50 hours in major) and non-majors: practical experience in rehearsal and performance. S/U grading.

**Prerequisites & Notes:** THTR 256 and permission of Instructor.

Credits: 3

Grade Mode: S/U

**THTR 360 - Acting Studio II: Physical Interpretation of a Role**

Continuation of skills and refinement of techniques presented in earlier acting studios, but with a strong emphasis on the use of the body and physical characterization. Scene work of several periods and styles is required.

**Prerequisites & Notes:** Written permission of instructor.

Credits: 4

**THTR 361 - Acting Studio II: Vocal Interpretation of a Role**

Continuation of skills and refinement of techniques presented in Acting Studio I, but with strong emphasis on voice and vocal characterization.



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Scene work from several major periods and styles is required.

**Prerequisites & Notes:** Written permission of Instructor.  
Credits: 4

## **THTR 362 - Irene Ryans & URTA Auditions**

Preparation course for students selected to compete in the Kennedy Center's American College Theatre Festival's Irene Ryans acting competition and URTA graduate school auditions. Repeatable up to a maximum of three credits, including original course.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 1  
Grade Mode: S/U

## **THTR 363 - Voice and Diction**

Sequence of exercises and drills challenging improvement in resonance, breath support, articulation, relaxation, placement and vocal work ranging from good stage speech (mid-Atlantic) to dialect.

Credits: 3

## **THTR 364 - Movement Studio II: Suzuki/Viewpoints**

An introductory exploration of the Suzuki and Viewpoints actor training movement systems.

**Prerequisites & Notes:** THTR 264 and THTR 360.  
Credits: 4

## **THTR 366 - Musical Theatre**

Practical application of singing and acting to performance-related work from American musical theatre through solo, duet and group exploration.

**Prerequisites & Notes:** THTR 260 or instructor permission  
Credits: 3

## **THTR 368 - Acting for the Camera**

An exploration and application of techniques and approaches for actors reflected currently in the film and television industry.

**Prerequisites & Notes:** THTR 260, THTR 261,

acceptance into THTR 360.  
Credits: 3

## **THTR 370 - Play Direction**

Theory and practice of stage direction including selection of play, casting and blocking. Production of a scene for public performance is required.

**Prerequisites & Notes:** THTR 160, THTR 212, THTR 213, THTR 228; or instructor permission.  
Credits: 3

## **THTR 371 - Directing Projects**

Individualized practicum in directing for the stage. Repeatable up to 6 credits.

**Prerequisites & Notes:** THTR 370  
Credits: 1-6

## **THTR 380 - Theatre History I**

Development of theatre to the Renaissance.

**Prerequisites & Notes:** THTR 101, THTR 228  
Credits: 4  
GUR Attributes: HUM

## **THTR 381 - Theatre History II**

Development of theatre from the Renaissance to the beginning of realism.

**Prerequisites & Notes:** THTR 101, THTR 228; THTR 380 recommended  
Credits: 4  
GUR Attributes: HUM

## **THTR 382 - Theatre History III**

Development of theatre from the beginnings of realism to contemporary theatre.

**Prerequisites & Notes:** THTR 101, THTR 228; THTR 380, THTR 381 recommended  
Credits: 4  
GUR Attributes: HUM

## **THTR 383 - Costume History**

Evolution of costume from ancient Greece through present-day fashion with reference to theatrical production.

Credits: 4

**THTR 384 - Introduction to Dramatic Writing**

Beginning exercise in dramatic writing, with emphasis on primary forms and conventions.

**Prerequisites & Notes:** THTR 228 or permission of instructor.

Credits: 4

**THTR 398 - Integrated Arts for Elementary Educators**

This arts education course provides future teachers with a foundation in the elements and principles of Visual Art, Dance, Music and Theatre and their applicability to the elementary classroom. (Also offered as ART 398, MUS 398 and DNC 398).

**Prerequisites & Notes:** Admission to a teacher education program leading to an elementary endorsement.

Credits: 3

**THTR 411 - Advanced Scenic Design**

Design for the modern theatre; emphasis on interpretation of the play through design; practical designs and techniques.

**Prerequisites & Notes:** THTR 312, THTR 313 or permission of instructor.

Credits: 4

**THTR 412 - Advanced Stagecraft**

Technical analysis of scripts, special effects, computers and properties. Laboratory work on productions.

**Prerequisites & Notes:** THTR 212, THTR 312.

Credits: 4

**THTR 413 - Advanced Lighting Design**

Concepts and techniques of drafting and computer-assisted drafting, text work sheets, and application programs related to lighting design.

**Prerequisites & Notes:** THTR 313.

Credits: 4

**THTR 414 - Theatre Business Practices**

Examination of the theories and approaches to business management in the theatre as well as practical application of those theories discussed including budgeting, promoting and producing.

**Prerequisites & Notes:** THTR 314; THTR 101 recommended.

Credits: 4

**THTR 416 - Advanced Costume Design**

Exploration and execution of complete designs of costumes for the modern theatre with emphasis on the development of the design concept and interpretation.

**Prerequisites & Notes:** THTR 316, THTR 382, THTR 383.

Credits: 4

**THTR 420 - Advanced Theatre Design and Portfolio Development**

Exploration and project execution of complete design paper project including all supporting technical and research materials leading to a final presentation of designer portfolio.

**Prerequisites & Notes:** THTR 212; and one from THTR 411, THTR 413, THTR 416

Credits: 5

**THTR 428 - Major Dramatists**

The in-depth exploration of an individual playwright or group of playwrights who were influential in the development of a particular style of drama. Topics include Greek and Roman, British, Continental, North American, contemporary or individual playwrights. Repeatable under separate topics.

**Prerequisites & Notes:** THTR 222 or THTR 228.

Credits: 3

**THTR 428A - Major Dramatists**

The in-depth exploration of an individual playwright or group of playwrights who were influential in the development of a particular style of drama. Topics include Greek and Roman, British, Continental, North American, contemporary or individual playwrights. Repeatable under separate topics.

Credits: 3

**THTR 428B - Major Dramatists**

The in-depth exploration of an individual playwright or group of playwrights who were

## THEATRE AND DANCE

influential in the development of a particular style of drama. Topics include Greek and Roman, British, Continental, North American, contemporary or individual playwrights. Repeatable under separate topics.

Credits: 3

### **THTR 428C - Major Dramatists**

The in-depth exploration of an individual playwright or group of playwrights who were influential in the development of a particular style of drama. Topics include Greek and Roman, British, Continental, North American, contemporary or individual playwrights. Repeatable under separate topics.

Credits: 3

### **THTR 428D - Major Dramatists**

The in-depth exploration of an individual playwright or group of playwrights who were influential in the development of a particular style of drama. Topics include Greek and Roman, British, Continental, North American, contemporary or individual playwrights. Repeatable under separate topics.

Credits: 3

### **THTR 428E - Major Dramatists**

The in-depth exploration of an individual playwright or group of playwrights who were influential in the development of a particular style of drama. Topics include Greek and Roman, British, Continental, North American, contemporary or individual playwrights. Repeatable under separate topics.

Credits: 3

### **THTR 428F - Major Dramatists: Contemporary Women**

The in-depth exploration of an individual playwright or group of playwrights who were influential in the development of a particular style of drama. Topics include Greek and Roman, British, Continental, North American, contemporary or individual playwrights. Repeatable under separate topics.

Credits: 3

### **THTR 450 - Theatre for Youth II**

Advanced techniques in youth theatre. Each student selects and prepares a script for performance for and/or by youth.

**Prerequisites & Notes:** THTR 350.

Credits: 3

### **THTR 451 - Creativity Across the Curriculum II**

Advanced techniques; supervised laboratory work with young people.

**Prerequisites & Notes:** THTR 351.

Credits: 3

### **THTR 452 - Secondary Theatre Techniques**

Exploration of techniques and curriculum for use in secondary theatre classrooms. Creation of lesson plans and projects aimed specifically for theatre students. This course has a required academic Service-Learning component.

**Prerequisites & Notes:** THTR 351; acting and directing courses strongly recommended.

Credits: 4

### **THTR 455 - Advanced Production and Design**

Directly supervised practice in theatre design/large group leadership. Students work as collaborators in scenic, lighting, costume, sound, makeup, property design, set dressing, technical direction or stage management. Repeatable to a maximum of 8 cr.

**Prerequisites & Notes:** THTR 355 and permission of Instructor.

Credits: 4

### **THTR 460 - Acting Studio III: Style - Shakespeare**

Continued refinement of skills and techniques presented in Acting Studio II, adding the physical, vocal and emotional styles of performing Shakespeare plays.

**Prerequisites & Notes:** Permission of Instructor.

Credits: 5

**THTR 461 - Acting Studio III: Personal Performance**

Continued refinement of skills and techniques introduced in previous studios, with special emphasis on individual acting problems.

**Prerequisites & Notes:** Permission of Instructor.  
Credits: 5

**THTR 462 - Advanced Acting Topics**

Students study specific advanced acting techniques and styles and apply them directly through production performance. Repeatable with different topics up to a maximum of 10 credits.

**Prerequisites & Notes:** THTR 260 or permission of instructor.  
Credits: 5

**THTR 463 - Audition Preparation**

Preparation of several contrasting monologues and development of specific performance skills to best demonstrate the varied talents of the individual actor in an audition format. S/U grading.

**Prerequisites & Notes:** THTR 460 or permission of Instructor.  
Credits: 2  
Grade Mode: S/U

**THTR 464 - Movement Studio III: Advanced Suzuki/Viewpoints**

An advanced exploration of the Suzuki and Viewpoints actor training movement systems.

**Prerequisites & Notes:** THTR 364  
Credits: 5

**THTR 465 - Summer Stock II**

Offered only summer quarter. Contact director of theatre for details. Repeatable once.

**Prerequisites & Notes:** Written permission of director of Summer Stock. Offered only summer quarter.  
Credits: 1-15

**THTR 470 - Play Direction II**

Producing and directing a one-act play for public performance; special emphasis on working with the actor.

**Prerequisites & Notes:** THTR 314, THTR 370; 30 hours in the major and permission of instructor  
Credits: 4

**THTR 471 - Advanced Directing Projects**

Individualized practicum in directing for the stage. Repeatable up to 6 credits.

**Prerequisites & Notes:** THTR 470  
Credits: 1-6

**THTR 480 - Devising Production**

Students devise an original work for the main stage theatre season through phases of research, creation, and development. All students write, design, and perform the piece.

**Prerequisites & Notes:** Audition Course -  
Permission of Instructor.  
Credits: 5

**THTR 485 - Dramatic Writing Workshop**

Opportunity for disciplined expression in writing for stage, film, television or other media. May be repeated under separate topics to a maximum of 12 credits.

**Prerequisites & Notes:** THTR 384 or permission of instructor.  
Credits: 4

**THTR 495 - Internship**

Qualified third- and fourth-year students may apply to apprentice with theatre companies, performing arts agencies or producing organizations. Repeatable to a maximum of 24 cr. S/U grading.

**Prerequisites & Notes:** Junior status or above and permission of Chair.  
Credits: 1-12  
Grade Mode: S/U

**THTR 496 - Senior Project**

Capstone course demonstrating accomplishment in the departmental concentration.

Credits: 1-4

## THEATRE AND DANCE

### **THTR 528F - Major Dramatists: Contemporary Women**

Capstone course demonstrating accomplishment in the departmental concentration.

Credits: 3

# College of Humanities and Social Sciences

## Introduction

*Dr LeaAnn Martin, Dean*

The College of Humanities and Social Sciences, Western's largest academic unit, is composed of two divisions: the humanities (communication, English, history, journalism, liberal studies, modern and classical languages, philosophy) and the social and behavioral sciences (anthropology; communication sciences and disorders; physical education, health and recreation; political science; psychology, sociology). These 13 departments offer more than 40 bachelor's degrees and 12 master's degrees, along with four interdisciplinary degrees in East Asian studies, linguistics, women studies and student-faculty designed majors.

The college houses several research and service centers, including the Center for Cross-cultural Research, the Center for Performance Excellence, and two community-based professional training centers: the Speech and Hearing Clinic and the Psychology Counseling Clinic. In addition, the college has six nationally accredited professional programs: school counseling, mental health counseling, speech pathology, audiology, community health and recreation.

## Mission Statement

The mission of the College is to offer the humanities and social and behavioral sciences core of the University through academic majors, support courses for other programs, and contributions to the general education program. The College also collaborates with other colleges to provide interdisciplinary, professional and applied programs that grow from the content, methodology and philosophy of the humanities and social and behavioral sciences and provides the academic content and a substantial portion of the pedagogy for many of the students preparing to be teachers. Through these offerings, the College aims to promote a holistic approach to learning, including an awareness of the complex nature of our global society; the ability to communicate effectively; the ability to collect, analyze and synthesize information in order to make informed choices and the incorporation of learning as a lifelong pursuit.

## Objectives of College:

The College of Humanities and Social Sciences partners with the College of Sciences and Technology to provide students with a three-component liberal education: first, a program of education-in-breadth through the General University Requirements (GURs) intended to prepare students for postgraduate life as educated persons and citizens; second, a program of education-in-depth in a disciplinary or interdisciplinary major designed to prepare students for careers or graduate study; and third, a choice of elective courses which can help satisfy the student's curiosity about any of the multitude of subjects that the University curriculum embraces. With each of these components, the college intends to produce graduates who are capable of informed and critical thinking; who have learned to tolerate ambiguity; who can appreciate cultural differences; who have developed moral and aesthetic sensibilities; who have mastered the basic tools of literacy and technology and who have acquired levels of information about the natural and social worlds, past and present, sufficient for responsible citizenship and the enjoyment of a civilized society. The college places strong emphasis on student-faculty collaboration in developing these skills through active learning, including laboratory experiences, community-based faculty-directed service learning, and student involvement in faculty research programs.

## Academic Programs Leading to Undergraduate and Graduate Degrees

Anthropology	BA, BAE, MA
Anthropology/Archaeology Concentration	BA
Anthropology/Biocultural Concentration	BA
Anthropology/Biology	BA

## COLLEGE OF HUMANITIES AND SOCIAL SCIENCES

Anthropology/Social Studies	BA
Archives and Records Management	MA
Behavioral Neuroscience	BA
Biology/Anthropology	BS
Canadian/American Studies	BA
Communication Sciences & Disorders	BA, MA
Community Health	BS
Communication Studies	BA, BAE
Double Language Major (French, German, Spanish)	BA
East Asian Studies	BA
Economics/Political Science	BA
English/Creative Writing	MFA
English/Creative Writing Emphasis	BA
English/English Studies	MA
English/Literature Emphasis	BA
Environmental Studies/Journalism (program in moratorium)	BA
Experimental Psychology	MS
General Studies	BA
History	BA, BAE, MA
History/Social Studies	BA
Humanities	BA
Humanities/History of Culture	BA
Humanities/Religion & Culture	BA
Journalism	BA
Kinesiology	BS, MS
Linguistics	BA
Mental Health Counseling	MS
Modern and Classical Languages (French, German, Japanese, Spanish)	BA, BAE
Philosophy	BA
Physical Education and Health ~ P-12	BAE
Political Science	BA, MA
Political Science/Economics	BA
Political Science/Environmental Studies	MA
Political Science/Social Studies	BA
Politics/Philosophy/Economics	BA
Psychology	BA, BAE
Recreation	BA
School Counseling	M/Ed
Sociology	BA, BAE, BS
Sociology/Social Studies	BA
Student-Faculty Designed Major	BA, BS
Women Studies	BA

### **Majors and Minors**

In addition to the GURs and other common degree requirements of the University, the candidate for a Bachelor of Arts or Bachelor of Science degree must complete a major area emphasis which is usually accompanied by supporting courses. A minor is optional. A few concentrations are offered which encompass both a major and a minor. Students will confer with appropriate departmental advisors to plan study programs. Transfer students are expected to complete at least a portion of their work in the major and minor fields in this institution.

***Student-Faculty Designed, BA or BS (College of Humanities and Social Sciences)***

Students desiring concentrated study in areas not listed as majors by departments of the College of Humanities and Social Sciences may design a major in conference with faculty members. Procedures for the Student Faculty Designed majors (BA or BS) are available from the Department of Liberal Studies or at <http://www.wvu.edu/liberalstudies/basfd.shtml>.

**College Admission and Advisement**

*Academic Advisement*

As the student completes the freshman year, which consists largely of courses that meet the GURs, he or she is referred to the academic departments for continued personalized advisement in planning and selecting courses of study. Faculty within each department share responsibility for counseling students electing concentrations in their area. In some cases, faculty from several departments may cooperate with a student in constructing his or her own interdisciplinary major; in others, faculty members may recommend to the department chair the waiving of certain course prerequisites (when it has been demonstrated that the student already has these competencies). Students who are undecided about a major may seek advisement through the Academic Advising Center in Old Main.

**Department Chairs**

Dr. Dan Boxberger	Anthropology
Dr. Michael Karlberg	Communication Studies
Dr. Barbara Mathers-Schmidt	Communication Sciences and Disorders
Dr. Marc Geisler	English
Dr. Kevin Leonard	History
Peggy Watt	Journalism
Dr. Scott Pearce	Liberal Studies
Dr. Maria (Paqui) Paredes	Modern & Classical Languages
Dr. Ryan Wasserman	Philosophy
Dr. Charles Sylvester	Physical Education, Health & Recreation
Dr. Sara Weir	Political Science
Dr. Larry Symons	Psychology
Dr. Mick Cunningham	Sociology

**Other College Information**

*Departments, Courses and Programs*

Courses listed in this catalog constitute a record of the total academic program of the University. For an exact scheduling of courses at Western, students should consult the annual online Timetable of Classes, and Extended Education bulletins.

**Student/Faculty Designed Majors**

College of Humanities and Social Sciences

**Introduction**

The Student/Faculty-Designed Major (SFDM) is a program/major that leads to either a Bachelor of Arts or Bachelor of Science degree granted by the College of Humanities and Social Sciences. The SFDM allows students, in consultation with appropriate faculty, to design individualized programs in subject-areas or with educational objectives that are not served by existing departmental majors. Programs may have either an academic or pre-professional focus.



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This program is administered by the Liberal Studies Department, whose Chair will provide guidance, information and general advisement for interested students. Particular academic and professional advisement, pertaining to the curricular content of each major, is largely the responsibility of the participating Advisory Committee faculty.

The primary purpose of the SFDM is to enable motivated students to make creative use of Western's curricular resources in academically sound ways. The expectations regarding academic substance and standards are not less than those of "regular" majors. Responsibility for compliance with the policies, procedures, and intent of the SFDM is shared by the student and their individually organized Advisory Committee, consisting of three to four faculty.

Students interested in pursuing a Student/Faculty Designed Major should contact the Liberal Studies Department. See [www.wvu.edu/liberalstudies](http://www.wvu.edu/liberalstudies).

### **Declaration Process**

A Student/Faculty Designed Major is available only through an application process:

1. Students are required to meet with the Liberal Studies Department Chair to initiate the application process after reviewing the SFDM Policies and Procedures, which are available at: [www.wvu.edu/liberalstudies](http://www.wvu.edu/liberalstudies).
2. An SFDM proposal generally consists of two parts: an SFDM contract that includes a detailed plan of study, and a 1-2 page typed, rationale for the proposed major that includes an explanation of the specific educational goals and how the program best serves those goals.
3. Students must take the initiative to form an Advisory Committee of three to four faculty to assist in the development of a curriculum (plan of study) for their SFDM. Faculty should be chosen from academic departments that represent major areas of study within the proposed program.
4. A student must meet with her/his Advisory Committee face-to-face to discuss the proposed plan of study and rationale before the SFDM contract and all the supporting documentation can be submitted to the Liberal Studies Department.
5. Completed contracts and supporting material will be forwarded to the CHSS Curriculum Council after the contract has been approved by the Liberal Studies Department Chair. Incomplete contracts will be returned to the student.

## **Student/Faculty Designed, BA (College of Humanities and Social Sciences)**

College of Humanities and Social Sciences

### **70-110 credits**

#### **Introduction/What is the Study of Student/Faculty Designed?**

The Student/Faculty-Designed Major (SFDM) is a program/major that leads to a Bachelor of Arts degree granted by the College of Humanities and Social Sciences. The SFDM allows students, in consultation with appropriate faculty, to design individualized programs in subject-areas or with educational objectives that are not served by existing departmental majors. Programs may have either an academic or pre-professional focus. Responsibility for compliance with the policies, procedures, and intent of the SFDM is shared by the student and their individually organized Advisory Committee.

Students interested in pursuing a Student/Faculty Designed Major leading to a Bachelor of Arts degree should contact the Liberal Studies Department. See <http://www.wvu.edu/liberalstudies>.

#### **Why Consider a College of Humanities and Social Sciences Student/Faculty Designed Major?**

Contact Information

## Sample Careers

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

A Student/Faculty Designed Major is available only through an application process:

1. Students are required to meet with the Liberal Studies Department Chair to initiate the application process after reviewing the SFDM Policies and Procedures, which are available at: <http://www.wvu.edu/liberalstudies>.
2. An SFDM proposal generally consists of two parts: an SFDM contract that includes a detailed plan of study, and a 1-2 page typed, rationale for the proposed major that includes an explanation of the specific educational goals and how the program best serves those goals.
3. Students must take the initiative to form an Advisory Committee of three to four faculty to assist in the development of a curriculum (plan of study) for their SFDM. Faculty should be chosen from academic departments that represent major areas of study within the proposed program.
4. A student must meet with her/his Advisory Committee face-to-face to discuss the proposed plan of study and rationale before the SFDM contract and all the supporting documentation can be submitted to the Liberal Studies Department.
5. Completed contracts and supporting material will be forwarded to the CHSS Curriculum Council after the contract has been approved by the Liberal Studies Department Chair. Incomplete contracts will be returned to the student.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- The program must include at least 70 credit hours, but no more than 110 credit hours. At least 45 credit hours must be taken from departments within the College of Humanities and Social Sciences.
- At least half of the total number of credits in the major should come from upper-division coursework.
- No more than 50% of the credits in the program may be credits completed before the contract date. The contract date is the date in which the student reviews the initial draft contract with the Liberal Studies Chair.
- The program cannot substantially duplicate existing major programs, or be designed simply to circumvent already established major requirements. Like all programs/majors, SFDMs should exhibit breadth, focus and depth.
- Each program/major must be approved by the College of Humanities and Social Sciences Curriculum Council.

## Additional Requirements

- A maximum of 30% of the total credits can be earned from Independent Study. Students are required to provide syllabi or course outlines for each proposed Independent Study course along with the draft contract.
- A plan for meeting the University's Writing Proficiency requirement must be submitted as part of the course of study.
- If the program/major is to be used for teacher certification, it must also be developed in accordance with the policies and procedures for interdisciplinary majors set by the Teacher Curricula & Certification Council and approved by that Council.
- Students who wish to include study abroad courses in their curriculum should propose and have their programs approved BEFORE the study abroad. This is especially important if completion of the study abroad program will result in more than 50% of the total credits having been taken.

## **Student/Faculty Designed, BS (College of Humanities and Social Sciences)**

College of Humanities and Social Sciences

### **70-110 credits**

#### **Introduction/What is the Study of Student/Faculty Designed?**

The Student/Faculty-Designed Major (SFDM) is a program/major that leads to a Bachelor of Science degree granted by the College of Humanities and Social Sciences. The SFDM allows students, in consultation with appropriate faculty, to design individualized programs in subject-areas or with educational objectives that are not served by existing departmental majors. Programs may have either an academic or pre-professional focus. Responsibility for compliance with the policies, procedures, and intent of the SFDM is shared by the student and their individually organized Advisory Committee.

Students interested in pursuing a Student/Faculty Designed Major leading to a Bachelor of Science degree should contact the Liberal Studies Department. See <http://www.wvu.edu/liberalstudies>.

#### **Why Consider a College of Humanities and Social Sciences Student/Faculty Designed Major?**

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### **How to Declare (Admission and Declaration Process):**

A Student/Faculty Designed Major is available only through an application process:

1. Students are required to meet with the Liberal Studies Department Chair to initiate the application process after reviewing the SFDM Policies and Procedures, which are available at: <http://www.wvu.edu/liberalstudies>.
2. An SFDM proposal generally consists of two parts: an SFDM contract that includes a detailed plan of study, and a 1-2 page typed, rationale for the proposed major that includes an explanation of the specific educational goals and how the program best serves those goals.
3. Students must take the initiative to form an Advisory Committee of three to four faculty to assist in the development of a curriculum (plan of study) for their SFDM. Faculty should be chosen from academic departments that represent major areas of study within the proposed program.
4. A student must meet with her/his Advisory Committee face-to-face to discuss the proposed plan of study and rationale before the SFDM contract and all the supporting documentation can be submitted to the Liberal Studies Department.
5. Completed contracts and supporting material will be forwarded to the CHSS Curriculum Council after the contract has been approved by the Liberal Studies Department Chair. Incomplete contracts will be returned to the student.

#### **Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

Requirements

The program must include at least 70 credit hours, but no more than 110 credit hours. At least 45 credit hours must be taken from departments within the College of Humanities and Social Sciences.

## COLLEGE OF HUMANITIES AND SOCIAL SCIENCES

- ❑ At least half of the total number of credits in the major should come from upper-division coursework.
- ❑ No more than 50% of the credits in the program may be credits completed before the contract date. The contract date is the date in which the student reviews the initial draft contract with the Liberal Studies Chair.
- ❑ The program cannot substantially duplicate existing major programs, or be designed simply to circumvent already established major requirements. Like all programs/majors, SFDMs should exhibit breadth, focus and depth.
- ❑ Each program/major must be approved by the College of Humanities and Social Sciences Curriculum Council.

### Additional Requirements

- ❑ A maximum of 30% of the total credits can be earned from Independent Study. Students are required to provide syllabi or course outlines for each proposed Independent Study course along with the draft contract.
- ❑ A plan for meeting the University's Writing Proficiency requirement must be submitted as part of the course of study.
- ❑ If the program/major is to be used for teacher certification, it must also be developed in accordance with the policies and procedures for interdisciplinary majors set by the Teacher Curricula & Certification Council and approved by that Council.
- ❑ Students who wish to include study abroad courses in their curriculum should propose and have their programs approved BEFORE the study abroad. This is especially important if completion of the study abroad program will result in more than 50% of the total credits having been taken.

# Anthropology

## Introduction

The discipline of anthropology studies humans in all the cultures of the world, both past and present. This includes humanity's physical development and the wide diversity of lifestyles people have created.

Anthropology has three main goals: first, providing a deep understanding of humans, both past and present; second, analyzing and organizing the knowledge gained and making it accessible; and third, engaging in the practical application of anthropology to various areas of contemporary human behavior.

Anthropology is a social science. It shares techniques and methods with other behavioral sciences and also draws upon physical and biological sciences.

Anthropology is unique among the social and behavioral sciences. Anthropologists obtain data primarily from field research and comparative cross-cultural studies in time and space. Thus, anthropology provides theoretical and empirical bases for development of hypotheses about human behavior, and for testing the breadth and application of such hypotheses.

The anthropology department provides training in each of the four main subdisciplines of anthropology.

**Cultural anthropology** seeks to understand and describe each culture in its own perspective. Cultural anthropologists gather data through first-hand field study in other cultures and do cross-cultural comparative studies which provide crucial insights and understanding of the modes and patterns of human life.

**Archaeology** uses scientific field work and laboratory techniques to investigate past human societies and the processes and effects of cultural evolution through the study of material remains.

**Physical anthropology** focuses on anatomical, physiological and genetic differences in past and contemporary human populations, and analyzes their evolutionary and cultural implications.

**Anthropological linguistics** studies the interrelationships between human culture and language with special focus on unwritten languages, the diversity of world languages, nonverbal human communication, and contemporary cultural linguistic interactions.

Utilizing ethnographic, ethnological and ethnohistorical tools, as well as information supplied by these four subdisciplines, the anthropologist comparatively studies cultures and the processes of human development. These findings have many practical uses.

## Faculty

**DANIEL L. BOXBERGER** (1983) Chair and Professor. BA, The Evergreen State College; MA, Western Washington University; PhD, University of British Columbia.

**SARAH K. CAMPBELL** (1988) Professor. BA, Indiana University; MA, PhD, University of Washington.

**JOYCE D. HAMMOND** (1984) Professor. BA, MA, Brown University; PhD, University of Illinois.

**TODD A. KOETJE** (1997) Associate Professor. BA, University of Washington; MA, State University of New York, Binghamton; PhD, University of Tennessee.

**JAMES LOUCKY** (1989) Professor. BA, Haverford College; MA, PhD, University of California, Los Angeles.

**ROBERT C. MARSHALL** (1985) Professor. BA, Youngstown State University; PhD, University of Pittsburgh.

**M.J. MOSHER** (2010) Assistant Professor. BS, Metropolitan State University; MA, University of Colorado at Denver; PhD, University of Kansas

**JUDITH M.S. PINE** (2008) Assistant Professor, BA Kansas State University, MA, PhD, University of Washington

**JOAN C. STEVENSON** (1979) Professor. BA, University of Washington; MA, PhD, University of Wisconsin-Milwaukee.

**KATHLEEN YOUNG** (1996) Associate Professor. BA, MA, Western Washington University; PhD, Simon Fraser University.

The department's faculty and staff invite questions about the program and its career potential. Persons seeking more information should visit the department in Arntzen Hall or call 360-650-3620. Written inquiries

should be directed to the Department of Anthropology, Western Washington University, Bellingham, WA 98225-9083. The department website is <http://www.wwu.edu/anthropology/>.

## Declaration Process

Students are eligible to declare the anthropology major if they have successfully completed any one of the following core courses: ANTH 301, 303, 335.

Students are advised to declare their major early in their academic career. Transfer students should declare after completion of one of the core courses listed above. Upper-division courses are restricted to declared majors during the first three days of registration and some courses may be available to majors only. Transfers and freshmen who are interested in the anthropology/biology major should seek advisement as soon as possible. Anthropology/biology BA or BS majors need to begin the chemistry/biology sequences required prior to declaring the major. This will assist them in shortening considerably the many quarters necessary for the anthropology/biology major.

## Other Departmental Information

### *Resources*

Opportunities for field work and library research in each of the four subfields of anthropology are available. Archaeological field school surveys are conducted alternate summers. The department engages in a series of funded projects, providing a wide diversity of research opportunities. Library holdings include resources for those pursuing cross-cultural and culture area research.

Degrees offered are the BA and the BA in Education. In addition a combined anthropology/biology BA or BS major is offered.

Careers for graduates in anthropology lie in both the public and private sectors of the economy and are increasing. Opportunities may be found in teaching (public school, community college and college), federal and state agencies, social services, applied health settings, museums and international business.

### *Mid-Program Checkpoint*

Students seeking to complete a BA degree in anthropology within a four-year time span should have completed the following courses by the start of their junior year. Major omissions from this list will make it difficult or impossible to complete this degree within two additional years.

- ANTH 201
- ANTH 210
- ANTH 215

Students seeking to complete a BA degree in anthropology with an archaeology concentration within a four-year time span should have completed the following courses by the start of their junior year. Major omissions from this list will make it difficult or impossible to complete this degree within two additional years.

- ANTH 201
- ANTH 210
- ANTH 215
- and prerequisites for supporting courses in sciences.

Students seeking to complete a BA or BS degree in biology/anthropology (human biology emphasis) within a four-year time span should have completed the following courses by the start of their junior year. Major omissions from this list will make it difficult or impossible to complete this degree within two additional years.

- ANTH 201
- ANTH 210
- ANTH 215
- BIOL 204
- BIOL 205
- BIOL 206

# ANTHROPOLOGY

- One of the following sequences:
  - CHEM 121
  - CHEM 123
  - CHEM 122
  - or
  - CHEM 125
  - CHEM 126
  - CHEM 225
- Physics and calculus

## Bachelor of Arts

### Anthropology — Archaeology Concentration, BA

#### 80 Credits

#### Introduction/What is the Study of Anthropology?

Anthropology explores what it means to be human. Anthropology is the scientific study of humankind in all the cultures of the world, past and present. This study includes humankind's physical development and creation of diverse lifestyles. The cross-cultural approach of Anthropology provides a framework for understanding all the diverse facets of what it means to be human.

#### Why Consider an Archaeology Concentration in Anthropology Major?

Archaeology is the "cultural anthropology" of the human past. It uses scientific field work and laboratory techniques to investigate past human societies and the processes and effects of cultural evolution through the study of material remains. The Anthropology Department has a small, but growing program in archaeology. Our program is active in regional prehistoric and historic archaeology. Both undergraduate and graduate students' participation in fieldwork is encouraged, and necessary if one is to enter the field professionally. Unlike some professions, archaeology can be entered on some levels with a B.A. degree, although M.A. and Ph.D. work offer greater opportunities.

#### Contact Information

##### Department Chair

Daniel Boxberger  
Arntzen Hall 320  
360-650-4798  
Daniel.Boxberger@wwu.edu

##### Departmental Advisors:

**Archaeology Advisor**  
Sarah Campbell  
Arntzen Hall 342  
360-650-4793  
Sarah.Campbell@wwu.edu  
**Archaeology Advisor**  
Todd Koetje  
Arntzen Hall 334  
360-650-4791

##### Anthropology Office

Arntzen Hall 315  
360-650-3620

#### Sample Careers

International Studies | Ethnologist | Museum Curator | Overseas Consultant | Researcher | Archaeologist

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

To declare, a student must have completed the following requirements:

- ANTH 301 or ANTH 303 or ANTH 335

Contact the Department of Anthropology at (360) 650-3620 or visit their office in Arntzen Hall 315 to declare the major and connect with a departmental advisor.

**Advising Tips:** Students are advised to declare their major early in their academic career. Anthropology advisors will provide information about the program, help develop a plan of study and answer any questions.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

**Requirements**

- ANTH 201 - Introduction to Cultural Anthropology
- ANTH 301 - Anthropological Theory
- ANTH 312 - Field Course in Archaeology or equivalent field experience recommended
- ANTH 335 - Quantitative Methods in Anthropology or another basic statistics course under advisement
- ANTH 496 - Portfolio Assembly
- One course from:
  - ANTH 330 - Religion and Culture
  - ANTH 338 - Economic Anthropology
  - ANTH 350 - The Ecology of Human Variation
  - ANTH 351 - Family and Kinship Organization
  - ANTH 352 - Cross-Cultural Study of Aging
  - ANTH 353 - Sex and Gender in Culture
  - ANTH 424 - Medical Anthropology
  - ANTH 429 - Politics, Power and Inequality
  - ANTH 440 - Cyborg Anthropology
  - ANTH 453 - Women of the Global South
  - ANTH 475 - Global Migration
  - ANTH 481 - Childhood and Culture
  - ANTH 484 - Intercultural Education
- One course from:
  - ANTH 361 - Native Peoples of North America
  - ANTH 362 - Peoples of Asia
  - ANTH 365 - Peoples of Latin America
  - ANTH 460 - Culture and Society of Japan
  - ANTH 462 - Native Peoples of the Northwest
  - ANTH 463 - Peoples of East and Southeast Asia
  - ANTH 465 - Peoples of Mexico and Central America
  - ANTH 476 - Borderlands
- Two courses from:
  - ANTH 308 - Hunter-Gatherer Societies in World Prehistory
  - ANTH 310 - The Rise of Civilizations
  - ANTH 314 - Archaeology of North America
- Two courses from:



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- ANTH 406 - Archaeological Method and Theory
  - ANTH 410 - Archaeological Analysis and Interpretation
  - ANTH 411 - Archaeology of Northwestern North America
  - ANTH 428 - Cultural Resource Management
  - Two courses from:
    - ANTH 420 - Human Osteology and Forensic Anthropology
    - ANTH 422 - Nutritional Anthropology
    - ANTH 470 - Museology Studies
  - 12 credits of supporting courses in sciences, history or mathematics selected under advisement.
- Strongly recommended courses include:
- ENVS 220 - Map Reading and Analysis
  - ENVS 321 - Computer Cartography
  - ENVS 325 - Geography of Landforms
  - ENVS 422 - Advanced GIS
  - ENVS 427 - Soil Landscapes
  - GEOL 310 - Geomorphology
  - GEOL 316 - Research in Marine Paleontology
  - GEOL 413 - Fluvial Geomorphology
  - GEOL 415 - Stratigraphy and Sedimentation
- At least one course each of the major subfields: physical anthropology, archaeology and linguistics (LING 201 or 204, ENG 370 may be substituted for an anthropological linguistics course)
  - Elective credits in anthropology
- NOTE: only one 100-level course will count towards this major.

### **Anthropology – Biocultural Concentration, BA**

Department of Anthropology, College of Humanities and Social Sciences

#### **95-98 Credits**

#### **Introduction/What is the Study of Anthropology?**

Anthropology explores what it means to be human. Anthropology is the scientific study of humankind in all the cultures of the world, past and present. This study includes humankind's physical development and creation of diverse lifestyles. The cross-cultural approach of Anthropology provides a framework for understanding all the diverse facets of what it means to be human.

#### **Why Consider a Biocultural Concentration in the Anthropology Major?**

The Biocultural Anthropology Concentration is the most flexible of the biology anthropology combined majors and allows for students to gain a broad interdisciplinary training relevant for many of the professions confronting the challenges of modern society. Students can supplement their studies with related coursework from other departments given the requirements of specific training or post-baccalaureate programs.

#### Contact Information

<b>Anthropology Department Chair</b>	<b>Anthropology Office</b>
--------------------------------------	----------------------------

Daniel Boxberger

Arntzen Hall 315

Arntzen Hall 320

360-650-3620

360-650-4798

Daniel.Boxberger@wwu.edu

**Anthropology Undergraduate  
Advisor**

Joan Stevenson  
Arntzen Hall 316  
360-650-4787  
Joan.Stevenson@wwu.edu

**Anthropology Undergraduate  
Advisor**

MJ Mosher  
Arntzen Hall 324  
360-650-3614  
M.J.Mosher@wwu.edu

**Anthropology Undergraduate  
Advisor**

Robert Marshall  
Arntzen Hall 344  
360-650-4785  
Robert.Marshall@wwu.edu

**Sample Careers**

Physical Anthropologist | Archaeologist | Cultural Anthropologist | Anthropological Linguist |  
Forensic Anthropologist | Applied Health | Medical fields

**Major/Career Resources**

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

To declare, a student must have completed any one of the following core courses:

- ANTH 301 or ANTH 303 or ANTH 335

Contact the Department of Anthropology at (360) 650-3620 or visit their office in Arntzen Hall 315 to declare the major and connect with a departmental advisor.

**Advising Tips:** Students are advised to declare their major early in their academic career. Anthropology advisors will provide information about the program, help develop a plan of study and answer any questions.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

**Requirements**

- ANTH 201 - Introduction to Cultural Anthropology
- ANTH 301 - Anthropological Theory
- ANTH 303 - Qualitative Methods in Anthropology (optional)
- ANTH 335 - Quantitative Methods in Anthropology
- ANTH 350 - The Ecology of Human Variation
- ANTH 424 - Medical Anthropology
- ANTH 490 - Senior Seminar in Anthropology (optional)
- ANTH 496 - Portfolio Assembly
- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- BIOL 348 - Human Anatomy and Physiology
- BIOL 349 - Human Physiology
- Two courses from:
  - ANTH 361 - Native Peoples of North America
  - ANTH 362 - Peoples of Asia
  - ANTH 365 - Peoples of Latin America
  - ANTH 422 - Nutritional Anthropology
  - ANTH 423 - Human Evolution
  - ANTH 457 - The Anthropology of Death and Dying
  - ANTH 460 - Culture and Society of Japan
  - ANTH 462 - Native Peoples of the Northwest

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- ANTH 463 - Peoples of East and Southeast Asia
- ANTH 465 - Peoples of Mexico and Central America
- ANTH 466 - Reproductive Ecology
- ANTH 476 - Borderlands
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - or
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- Choose either:
  - CHEM 251 - Elementary Organic Chemistry
  - or all three of the following:
    - CHEM 351 - Organic Chemistry
    - CHEM 352 - Organic Chemistry
    - CHEM 353 - Organic Chemistry
- At least one course each of the major subfields: physical anthropology, archaeology and linguistics (LING 201 or 204, ENG 370 may be substituted for an anthropological linguistics course)

Students are encouraged to further specialize according to their interests by pursuing appropriate course sequences and/or minors outside of the anthropology department, e.g., mathematics with an emphasis on statistics if pursuing epidemiology. Please confer with your advisor to tailor your training to meet your post-baccalaureate plans.

Program advisors: Joan Stevenson and MJ Mosher

## **Anthropology, BA**

Department of Anthropology, College of Humanities and Social Sciences

### **65 Credits**

#### **Introduction/What is the Study of Anthropology?**

Anthropology explores what it means to be human. Anthropology is the scientific study of humankind in all the cultures of the world, past and present. This study includes humankind's physical development and creation of diverse lifestyles. The cross-cultural approach of Anthropology provides a framework for understanding all the diverse facets of what it means to be human.

The Anthropology Department provides training in four sub-disciplines: Cultural Anthropology, Archaeology, Physical Anthropology and Anthropological Linguistics. Using ethnographic, ethnological and ethnohistorical tools and information supplied by the four sub disciplines, the Anthropologist studies cultures and the processes of human development comparatively.

#### **Why Consider an Anthropology Major?**

Do you find human diversity and various cultures fascinating? Do you like to approach subjects from multiple perspectives? Do you prefer a holistic style of learning? Do you want to know why as well as how? Are you fascinated by human diversity? Are you enthusiastic, intelligent, and open-minded? If so, you may wish to consider a major in Anthropology. Students earning a degree in Anthropology will be able to apply their learning to a variety of jobs locally and internationally in the global economy of today's world.

## Contact Information

**Department Chair**

Daniel Boxberger  
 Arntzen Hall 320  
 360-650-4798  
 Daniel.Boxberger@wwu.edu

**Major Information**

Anthropology Office  
 Arntzen Hall 315  
 360-650-3620

## Sample Careers

International Studies | Law Enforcement | Ethnologist | Diplomacy | Museum Curator | Overseas Consultant | Linguist | Education | Researcher | Translator | Archaeologist | International Business | Politics | Governmental Advisor | Cultural Diversity Programs | Human Resources | Social Services

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

To declare, a student must have completed the following requirements:

- ANTH 301 or ANTH 303 or ANTH 335

Contact the Department of Anthropology at (360) 650-3620 or visit their office in Arntzen Hall 315 to declare the major and connect with a departmental advisor.

**Advising Tips:** Students are advised to declare their major early in their academic career. Anthropology advisors will provide information about the program, help develop a plan of study and answer any questions.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- ANTH 201 - Introduction to Cultural Anthropology
- ANTH 301 - Anthropological Theory
- ANTH 303 - Qualitative Methods in Anthropology
- ANTH 335 - Quantitative Methods in Anthropology or another basic statistics course under advisement
- ANTH 490 - Senior Seminar in Anthropology or other culminating project under advisement (e.g., internship or directed independent study)
- ANTH 496 - Portfolio Assembly
  - Methods Component: At least one course from the following:
    - ANTH 410 - Archaeological Analysis and Interpretation
    - ANTH 420 - Human Osteology and Forensic Anthropology
    - ANTH 428 - Cultural Resource Management
    - ANTH 447 - Anthropological Semiotics
    - ANTH 470 - Museology Studies
    - ANTH 471 - Field Work Methods in Cultural Anthropology
    - ANTH 472 - Visual Anthropology
    - ANTH 473 - Field Course in Ethnography
    - ANTH 480 - Applied Anthropology
 (where appropriate an internship, practicum or archaeological methods course may be substituted under advisement)
  - Topical Component: At least one course from the following:
    - ANTH 330 - Religion and Culture

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- ANTH 338 - Economic Anthropology
  - ANTH 350 - The Ecology of Human Variation
  - ANTH 351 - Family and Kinship Organization
  - ANTH 352 - Cross-Cultural Study of Aging
  - ANTH 353 - Sex and Gender in Culture
  - ANTH 424 - Medical Anthropology
  - ANTH 429 - Politics, Power and Inequality
  - ANTH 440 - Cyborg Anthropology
  - ANTH 453 - Women of the Global South
  - ANTH 475 - Global Migration
  - ANTH 481 - Childhood and Culture
  - ANTH 484 - Intercultural Education
- Culture Region Component: At least one course from the following:
- ANTH 361 - Native Peoples of North America
  - ANTH 362 - Peoples of Asia
  - ANTH 365 - Peoples of Latin America
  - ANTH 460 - Culture and Society of Japan
  - ANTH 462 - Native Peoples of the Northwest
  - ANTH 463 - Peoples of East and Southeast Asia
  - ANTH 465 - Peoples of Mexico and Central America
  - ANTH 476 - Borderlands
- At least one course each of the major subfields: physical anthropology, archaeology and linguistics (LING 201 or 204, ENG 370 may be substituted for an anthropological linguistics course)
- Electives in anthropology to complete 25 credits for the minor.
- Only one 100-level course will count toward major, minor or archaeology concentration

### **Anthropology/Biology, BA**

Combined major offered by the Department of Anthropology, College of Humanities and Social Sciences and the Department of Biology, College of Sciences and Technology.

#### **89 credits**

#### **Introduction/What is the Study of Anthropology/Biology?**

Biological or Physical Anthropology is the study of both present and past human variation relative to local ecologies and cultures. Biological Anthropologists specialize in Human or Primate Anatomy, Genetics, Disease Ecology, Growth and Development, Forensic Anthropology and Osteology, Medical Anthropology or Primate Behavior and Primatology.

#### **Why Consider an Anthropology/Biology Major?**

The Biology/Anthropology major is a concentration on Human Biology and Behavioral Science. This major is more flexible than the Biology/Anthropology B.S. but is also excellent preparation for the applied health careers and graduate programs in Biological or Physical Anthropology. Check the course requirements for your postgraduate applied health programs to make sure you take all the appropriate prerequisites.

#### Contact Information

##### **Anthropology Program Advisor**

Joan Stevenson  
Arntzen Hall 316

##### **Biology Program Advisor**

Roger Anderson  
Biology 311

##### **Biology Program Coordinator**

Maren Brinson  
Biology 315

360-650-4787

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Maren.Brinson@wwu.edu

**Anthropology Program Advisor**

MJ Mosher

Arntzen Hall 324

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M.J.Mosher@wwu.edu

**Sample Careers**

Applied Health Tracks | Physical Anthropology | Graduate Programs

**Major/Career Resources**[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)**How to Declare (Admission and Declaration Process):**

Declare your Anthropology/Biology major as soon as you discover you are interested. Contact the Anthropology department and Maren Brinson in the Biology Department Office, BI 315 for details. Freshmen, your first quarter is not too soon!

This degree has a two-step process for admission. Phase I students are students who have declared their intent to major in biology, and are in the process of completing the introductory biology and general chemistry series. Admission to Phase II is based on academic performance in the introductory courses. Students must have achieved an average grade of 2.9 or higher in their introductory biology and general chemistry courses before they can advance to Phase II and begin taking upper-division coursework.

Consult Department advisors in Biology and Anthropology as early as possible. Early advisement will ensure appropriateness and proper sequencing of courses. Anthropology/Biology BA majors need to begin the chemistry/biology sequences required prior to declaring the major. This will assist them in shortening considerably the many quarters necessary for the anthropology/biology major.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

**Requirements**

- ANTH 201 - Introduction to Cultural Anthropology
- ANTH 210 - Introduction to Archaeology
- ANTH 215 - Introductory Biological Anthropology
- ANTH 496 - Portfolio Assembly
- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- BIOL 321 - Genetics
- BIOL 348 - Human Anatomy and Physiology
- BIOL 349 - Human Physiology
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - or
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors

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- CHEM 225 - General Chemistry III, Honors
  - Choose either:
    - CHEM 251 - Elementary Organic Chemistryor all three of the following:
    - CHEM 351 - Organic Chemistry
    - CHEM 352 - Organic Chemistry
    - CHEM 353 - Organic Chemistry
  - One course from:
    - PHYS 101 - Physics Analysis
    - PHYS 114 - Principles of Physics I
    - PHYS 115 - Principles of Physics II (recommended)
  - One course from:
    - ANTH 335 - Quantitative Methods in Anthropology
    - BIOL 340 - Biometrics
    - MATH 240 - Introduction to Statistics
  - 10 credits in anthropology under advisement
    - ANTH 308 - Hunter-Gatherer Societies in World Prehistory
    - ANTH 422 - Nutritional Anthropology
    - ANTH 424 - Medical Anthropology
    - ANTH 466 - Reproductive Ecology
  - 8 credits of biology under advisement
    - BIOL 322 - Genetics Lab
    - BIOL 323 - Cell and Molecular Biology
    - BIOL 324 - Methods in Molecular Biology
    - BIOL 345 - Fundamentals of Microbiology
    - BIOL 410 - Animal Behavior
    - BIOL 465 - Vertebrate Zoology
    - BIOL 467 - Comparative Vertebrate Physiology

### **Anthropology/Social Studies, BA**

Department of Anthropology, College of Humanities and Social Sciences.

#### **87-91 Credits**

##### **Introduction/What is the Study of Anthropology/Social Studies?**

Anthropology explores what it means to be human and encompass the scientific study of diversity as well as similarities of all cultures of the world, past as well as present. Its scope includes human physical development, adaptation to vastly different environments, and creative expressions of meaning and belonging. The cross-cultural approach of Anthropology provides an inclusive and holistic framework for understanding all facets of humanity.

The Anthropology Department provides training in four sub-disciplines: Cultural Anthropology, Archaeology, Physical Anthropology and Anthropological Linguistics. Using ethnographic, comparative and ethnohistorical methods and working in partnerships with communities and peoples worldwide, anthropologists contribute in multiple ways to addressing contemporary human problems and highlighting evidence that points to both past and potential solutions.

### Why Consider an Anthropology/Social Studies Major?

Do you find human diversity and various cultures fascinating? Do you appreciate the benefits of examining topics from multiple perspectives and value a holistic approach to learning? Do you prefer a holistic style of learning? Do you want to know why as well as how? Are you fascinated by human diversity? Are you enthusiastic and open-minded? If you are also excited about transmitting that enthusiasm and understanding to others, a major in Anthropology/Social Studies may be for you. Students earning a degree in Anthropology/Social Studies will be able to apply their knowledge and experience to a variety of careers locally and globally, particularly in settings for learning and teaching such as schools and learning across the life span.

To receive a recommendation for state of Washington certification, students must complete the teacher certification program, including the content methods course SEC 426, offered by the Department of Secondary Education, as a part of the undergraduate Bachelor of Arts degree, or as a post-baccalaureate program, or as a part of the Master's in Teaching degree. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements. Completion of this combined major leads to an endorsement in social studies.

Contact Information		
<b>Anthropology Department Chair</b> Daniel Boxberger Arntzen Hall 320 360-650-4798 Daniel.Boxberger@wwu.edu	<b>Anthropology Office</b> Arntzen Hall 315 360-650-3620	<b>Anthropology/Social Studies Advisor</b> Dr. James Loucky Arntzen Hall 322 360-650-3615 James.Loucky@wwu.edu
<b>Secondary Education Information</b> Janna Cecka Miller Hall 401C 360-650-3347 <a href="http://www.wce.wwu.edu/sec">http://www.wce.wwu.edu/sec</a>	<b>Teacher Education Admissions</b> Miller Hall 214 360-650-3313 <a href="http://www.wce.wwu.edu/admiss">http://www.wce.wwu.edu/admiss</a>	

Sample Careers
Teacher   Education   Attorney   Researcher   Politician   Governmental Advisor   Diplomacy   Human Services
Major/Career Resources
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>

### How to Declare (Admission and Declaration Process):

Contact the Department of Anthropology at (360) 650-3620 or visit their office in Arntzen Hall 315 to declare the major and connect with a departmental advisor.

**Advising Tips:** Students are advised to declare their major early in their academic career. Anthropology advisors will provide information about the program, help develop a plan of study and answer any questions.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

#### Requirements

- ANTH 201 - Introduction to Cultural Anthropology
- ANTH 210 - Introduction to Archaeology
- ANTH 215 - Introductory Biological Anthropology



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- ANTH 496 - Portfolio Assembly
- ENVS 204 - Human Geography
- HIST 103 - Introduction to American Civilization: American History to 1865
- HIST 104 - Introduction to American Civilization: American History Since 1865
- HIST 121 - World History to 500
- HIST 123 - World History, 1500 to the Present
- HIST 391 - History of the Pacific Northwest
- PLSC 250 - The American Political System
- One course from:
  - ANTH 481 - Childhood and Culture
  - ANTH 484 - Intercultural Education
- One course from:
  - ECON 206 - Introduction to Microeconomics
  - ECON 446 - Economics for the Teacher (preferred)
- One course from:
  - ECON 207 - Introduction to Macroeconomics
  - ECON 447 - Methods for Teaching About the National Economy in the Public Schools (preferred)
- One of the following:
  - ENVS 202 - Introduction to Environmental Studies and Sustainability
  - ENVS 220 - Map Reading and Analysis
  - ENVS 221 - Geographic Information Systems Survey
  - ENVS 240 - Geography and World Affairs
  - ENVS 320 - Introduction to Geographic Information Systems
  - ENVS 342 - Geography of the World Economy
  - ENVS 343 - Urbanization: Processes and Patterns
- Electives under departmental advisement — at least one course from each of the following groups:
  - Cultural area courses:
    - ANTH 361 - Native Peoples of North America
    - ANTH 362 - Peoples of Asia
    - ANTH 365 - Peoples of Latin America
    - ANTH 460 - Culture and Society of Japan
    - ANTH 462 - Native Peoples of the Northwest
    - ANTH 463 - Peoples of East and Southeast Asia
    - ANTH 465 - Peoples of Mexico and Central America
    - ANTH 476 - Borderlands
  - Topical cultural anthropology courses:
    - ANTH 247 - Introduction to Linguistic Anthropology
    - ANTH 330 - Religion and Culture
    - ANTH 338 - Economic Anthropology
    - ANTH 351 - Family and Kinship Organization
    - ANTH 352 - Cross-Cultural Study of Aging
    - ANTH 353 - Sex and Gender in Culture
    - ANTH 424 - Medical Anthropology
    - ANTH 429 - Politics, Power and Inequality
    - ANTH 453 - Women of the Global South
    - ANTH 475 - Global Migration
    - ANTH 480 - Applied Anthropology

# Bachelor of Arts in Education

## Anthropology – Elementary, BAE

Department of Anthropology, College of Humanities and Social Sciences

### 45 Credits

#### Introduction/What is the Study of Anthropology-Elementary?

The Anthropology Department offers a combined major in accordance with the Woodring College of Education requirements. Anthropology is particularly valuable for teachers, because it provides a broad understanding of human behavior. Teachers often work with students of various cultural backgrounds and an awareness of specific cultural learning influences, attitudes, motivations, and patterns of interaction is an integral part of working effectively and respectfully in diverse communities. This is the basis of the core subjects in cultural anthropology.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in Elementary Education offered through Woodring College of Education.

#### Why Consider an Anthropology Elementary Major?

Through the required basic courses in Anthropology, education majors will acquire an understanding of the nature of human beings, the evolution of the human species and the tremendous variation of cultural traits that are both our heritage and potential. Through faculty advisement, prospective students will be informed of advanced coursework that are beneficial combinations to complete individual academic goals. One possible emphasis is the culture of the Native American Indians--a subject that most elementary teacher cover at some point in their curriculum. Another emphasis may be cultural minority groups in the Pacific Northwest. The relationship of cultural learning to personality development and the relationship of cultural expectations to the learning process itself are other important areas covered by courses which may be taken as part of the Anthropology Education Major.

Contact Information		
<b>Anthropology Department Chair</b> Daniel Boxberger Arntzen Hall 320 360-650-4798 Daniel.Boxberger@wwu.edu	<b>Anthropology Undergraduate Advisor</b> James Loucky Arntzen Hall 322 360-650-3615 James.Loucky@wwu.edu	<b>Anthropology Office</b> Arntzen Hall 315 360-650-3620
<b>Elementary Education Professional Program Information</b> Miller Hall 300 360-650-3336 <a href="http://www.wce.wwu.edu/Depts/ELED/">http://www.wce.wwu.edu/Depts/ELED/</a>	<b>Teacher Education Admissions</b> Miller Hall 150 360-650-3313 <a href="http://www.wce.wwu.edu/admiss">http://www.wce.wwu.edu/admiss</a>	<b>Elementary Education Professional Program Advisor and Program Manager</b> Ellen Kreider Miller Hall 301D 360-650-7948 Ellen.Kreider@wwu.edu

## Sample Careers

Actuary | Financial Planner/Analyst | Government | Investment Banker | Budget Analyst | Banking Securities | Financial Economist | Business Forecaster

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

Contact the Department of Anthropology at (360) 650-3620 or visit their office in Arntzen Hall 315 to declare the major and connect with a departmental advisor.

**Advising Tips:** Students are advised to declare their major early in their academic career. Anthropology advisors will provide information about the program, help develop a plan of study and answer any questions. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

### **Grade Requirements**

A grade of C (2.0) or better is required for courses in the elementary education professional program and all courses required for the endorsement.

#### Requirements

- ANTH 201 - Introduction to Cultural Anthropology
- ANTH 210 - Introduction to Archaeology
- ANTH 215 - Introductory Biological Anthropology
- ANTH 496 - Portfolio Assembly
- One course from:
  - ANTH 481 - Childhood and Culture
  - ANTH 484 - Intercultural Education
- Electives under departmental advisement. Select one course from each of the following groups:
  - Cultural area courses:
    - ANTH 361 - Native Peoples of North America
    - ANTH 362 - Peoples of Asia
    - ANTH 365 - Peoples of Latin America
    - ANTH 460 - Culture and Society of Japan
    - ANTH 462 - Native Peoples of the Northwest
    - ANTH 463 - Peoples of East and Southeast Asia
    - ANTH 465 - Peoples of Mexico and Central America
    - ANTH 476 - Borderlands
  - Topical cultural anthropology courses:
    - ANTH 247 - Introduction to Linguistic Anthropology
    - ANTH 330 - Religion and Culture
    - ANTH 351 - Family and Kinship Organization
    - ANTH 352 - Cross-Cultural Study of Aging
    - ANTH 353 - Sex and Gender in Culture
    - ANTH 424 - Medical Anthropology
    - ANTH 429 - Politics, Power and Inequality
    - ANTH 453 - Women of the Global South
    - ANTH 475 - Global Migration
    - ANTH 480 - Applied Anthropology

## Additional Requirements

### Elementary Education Professional Program Requirements (103-104 credits)

Department of Elementary Education, Woodring College of Education

#### Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

#### Admission and Declaration Process

Admission Requirements

#### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

#### Professional Studies Core (25 credits)

- ELED 301 - Educational Psychology I: Development and Individual Differences
- ELED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Basic Instructional Technology Skills
- I T 442 - Classroom Use of Instructional Technology (Elementary)
- SPED 364 - Teaching Each Student

#### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-79 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
  - ELED 425 - Social Studies for the Elementary School
  - ELED 470 - Developing Teaching
  - ELED 471 - Documenting Teaching
  - ELED 480 - Literacy: Beginning Communicators
  - ELED 481 - Literacy: Fluent Communicators
  - ELED 491 - September Experience
  - ELED 492 - Practicum: Experience in Literacy Methods
  - ELED 494 - Internship - Elementary
  - HLED 455 - Health Education Grades K-8

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- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

## Bachelor of Science

### Biology/Anthropology, BS (see Biology Department)

Biology/Anthropology, BS (see Biology Department)

## Master of Arts

### Anthropology, Thesis, MA

*College of Humanities and Social Sciences*

### Graduate Faculty

**Boxberger, Daniel L.**, PhD, ethnohistory, method and theory, indigenous rights, North America, Northwest coast.

**Campbell, Sarah**, PhD, Pacific Northwest prehistory, archaeological method and theory, cultural resource management.

**Hammond, Joyce D.**, PhD, visual anthropology, gender studies, expressive culture, fieldwork methods, and Pacific Asian Rim tourism.

**Koetje, Todd A.**, PhD, archaeology, quantitative methods, spatial studies, method and theory, paleolithic Old World, paleoindian-archaic Northeast U.S.

**Loucky, James**, PhD, applied anthropology, socialization, immigration, cross-cultural education, Latin America.

**Marshall, Robert C.**, PhD, political economy, symbolism, Marxist anthropology, East Asia, Japan.

**M. J. Mosher**, PhD, anthropological genetics, epigenetics, nutrition, adipokines, human variation and adaptation, Arctic Populations.

**Pine, Judith**, PhD, linguistic anthropology, literacy theory, indigenesness, globalization/borders, language maintenance/endorment, upland peoples of SE Asia/SW China.

**Stevenson, Joan**, PhD, anthropological genetics and demography, osteology, AD/HD, sex differences, European immigrants.

**Young, Kathleen**, PhD, gender, religion, war and violence, death and dying, cross-cultural law.

Program Advisor: Dr. Sarah Campbell, Arntzen Hall 342

### Goals

- Provide structured training in academic core, appropriate specialization courses, and experience conducting independent research
- Prepare students for a variety of professional careers utilizing anthropology (e.g. social services, international corporations, cultural resource management, forensics, public health)
- Prepare students for PhD programs or other advanced degrees.

## Prerequisites

Undergraduate major in anthropology or related field such as human biology, linguistics, classical studies, history, women's studies, sociology and other social sciences. Applicants with insufficient background in theory, quantitative or qualitative methods relevant to their field of study may be required to take undergraduate classes before entering the program. Applicants are directed to the current course requirements in the appropriate undergraduate anthropology major for an indication of the preparation expected.

## Application Information

**Deadline:** Please see Graduate School deadlines. Preferred consideration for admission will be given to applicants who have complete files by March 1.

**TA Deadline:** Preferred consideration will be given to applicants who have complete files by March 1.

### *Specific Entrance and Test Requirements*

- A 500-word essay stating reasons for wanting to do graduate work in anthropology, and indicating major interests within anthropology
- Graduate Record Exam, General Test

Both the essay and the GRE are required for admission, but the GRE may be waived for applicants with advanced degrees.

### Program Requirements

- ANTH 501 - History of Anthropology
- ANTH 502 - Theory in Anthropological Research
- ANTH 503 - Research Design and Method
- At least one course from each of the following areas or another course selected under advisement:
  - Culture Region:
    - ANTH 460 - Culture and Society of Japan
    - ANTH 462 - Native Peoples of the Northwest
    - ANTH 511 - Current Archaeological Research in Northwestern North America
    - ANTH 553 - Women of the Global South
    - ANTH 563 - Peoples of East and Southeast Asia
    - ANTH 565 - Peoples of Mexico & Central America
    - ANTH 576 - Borderlands
  - Methods:
    - ANTH 470 - Museology Studies
    - ANTH 473 - Field Course in Ethnography
    - ANTH 506 - Archaeological Method and Theory
    - ANTH 510 - Applied Archaeological Analysis and Interpretation
    - ANTH 515 - Practicum in Archaeological Spatial Analysis
    - ANTH 520 - Human Osteology
    - ANTH 528 - Applied Cultural Resource Management
    - ANTH 554 - Participatory Action Research Methods
    - ANTH 571 - Field Work Methods in Cultural Anthropology
    - ANTH 572 - Visual Anthropology
    - ANTH 580 - Applied Anthropology

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[Foreign language competency may substitute for the Methods requirement with approval from the program advisor; if approved, no credit will be awarded and an additional 3-5 credits must be added to the electives portion of the graduate program]

Topical:

- ANTH 456 - Anthropology of War and Human Rights
- ANTH 457 - The Anthropology of Death and Dying
- ANTH 475 - Global Migration
- ANTH 484 - Intercultural Education
- ANTH 522 - Nutritional Anthropology
- ANTH 524 - Applied Medical Anthropology
- ANTH 525 - Primate Evolution
- ANTH 547 - Semiotic Anthropology
- ANTH 566 - Reproductive Ecology
- ANTH 581 - Childhood and Culture
- ANTH 690 - Thesis (3-12)

NOTE: Three credits of ANTH 690 are required. Not more than 12 credits of 690 will apply toward the 45-credit requirement for the degree.

Electives in Specialization: Courses selected under advisement from 400- or 500-level courses in anthropology

NOTE: No more than 10 credits of 400 level courses can be applied to the graduate degree. At least 35 credits must be from courses at the 500 or 600 (thesis) level.

Supporting Courses: Where appropriate to the student's specialty interests, the candidate may elect up to 15 credits from a related discipline, under Anthropology Graduate Committee advisement (0-15)

Advancement to candidacy is granted upon successful completion of 15 credits.

## Minor

### Anthropology Minor

Department of Anthropology, College of Humanities and Social Sciences

**25 credits**

#### Introduction/What is the Study of Anthropology?

#### Why Consider an Anthropology Minor?

##### Contact Information

##### Department Chair

Daniel Boxberger  
Arntzen Hall 320  
360-650-4798  
Daniel.Boxberger@wwu.edu

##### Minor Information:

##### Academic Department Manager

Anthropology Office  
Arntzen Hall 315  
360-650-3620

##### Sample Careers

##### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):****Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

**Requirements**

- ANTH 201 - Introduction to Cultural Anthropology
    - One course from:
      - ANTH 102 - Introduction to Human Origins
      - ANTH 210 - Introduction to Archaeology
      - ANTH 215 - Introductory Biological Anthropology
    - Electives in anthropology under departmental advisement.
- NOTE: Only one 100-level course will count towards the Anthropology Minor.

**Latin American Studies Minor (see History Department)**

Latin American Studies Minor (see History Department)

**Anthropology Courses****ANTH 102 - Introduction to Human Origins**

Description of scientific evidence for the evolution of the human lineage from its primitive primate ancestors to the origins of civilization. Emphasis on analytical methods employed to reconstruct history from fossils, geological context and cultural remains.

Credits: 5  
GUR Attributes: SSC

**ANTH 104 - American Mosaic: The Cultures of the United States**

The study of the cultures of the United States from the perspectives of ethnicity, race, gender and class. Special emphasis on anthropological methods and approaches to enhance understanding of contemporary socio-cultural lifeways.

Credits: 4  
GUR Attributes: BCGM

**ANTH 201 - Introduction to Cultural Anthropology**

Introduction to the concepts, methods and practical application of cultural anthropology. The focus is on explanations for social and cultural

variation around the world and over time and the significance of holistic and comparative understanding.

Credits: 5  
GUR Attributes: SSC

**ANTH 210 - Introduction to Archaeology**

The historical roots and current goals of archaeology. Principles of archaeological inference, including formation of the archaeological record, data collection and analysis, and interpretive frameworks.

Credits: 5  
GUR Attributes: SSC

**ANTH 215 - Introductory Biological Anthropology**

The biological side of anthropology; human osteology, primate paleontology, human variation, human evolution and primate behavior.

Credits: 5  
GUR Attributes: LSCI

**ANTH 247 - Introduction to Linguistic Anthropology**



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The study of language from an anthropological perspective. Includes an introduction to the structure and patterning of language, the study of language as it is used in daily life, and the role of language in human evolution.

Credits: 5  
GUR Attributes: SSC

## **ANTH 301 - Anthropological Theory**

The development of anthropological thought from the late 1800s to the present. Emphasis is placed on the major theoretical developments in the discipline.

**Prerequisites & Notes:** ANTH 201 or HNRS 203.  
Credits: 5

## **ANTH 303 - Qualitative Methods in Anthropology**

This course will familiarize students with perspectives, methods and techniques of qualitative research in anthropology. The course will cover the theoretical background of qualitative research, major research traditions, methods of data collection, analysis of textual data and the write-up of findings.

**Prerequisites & Notes:** ANTH 201 or HNRS 203.  
Credits: 5

## **ANTH 308 - Hunter-Gatherer Societies in World Prehistory**

The archaeological remains of hunting-gathering groups from early hominids to modern times interpreted in terms of evolution of adaptive strategies. Relationship to agriculture as an adaptive strategy; contributions of studies of modern hunter-gatherer groups.

**Prerequisites & Notes:** ANTH 210.  
Credits: 4

## **ANTH 310 - The Rise of Civilizations**

Village agricultural societies as revealed by archaeology; crystallization of village farming societies into urban civilizations in the Near East, Egypt, India, China and New World parallel developments.

**Prerequisites & Notes:** ANTH 102 or ANTH 210.

Credits: 4

## **ANTH 312 - Field Course in Archaeology**

On-site training in methods and techniques of archaeological survey and excavation.

**Prerequisites & Notes:** ANTH 210 or equivalent and permission of instructor.  
Credits: 12

## **ANTH 314 - Archaeology of North America**

Origins of PaleoIndians of North America, their paleoenvironments and the cultural sequences leading to the historic peoples of the New World north of Panama. Mesoamerican and Mississippian cultures, those of the Southwest and the Woodland Archaic.

**Prerequisites & Notes:** ANTH 210.  
Credits: 5

## **ANTH 330 - Religion and Culture**

Comparative study of religious thought, belief and behavior; relationship of religious experience and institutions to other aspects of culture and society.

**Prerequisites & Notes:** ANTH 201 or HNRS 203.  
Credits: 5

## **ANTH 335 - Quantitative Methods in Anthropology**

Mathematics and statistics as applied to anthropological problems.

**Prerequisites & Notes:** ANTH 201 or HNRS 203 or ANTH 210 or ANTH 215.  
Credits: 5  
GUR Attributes: QSR

## **ANTH 338 - Economic Anthropology**

Examines the relationship between systems of production and culture through four theoretical approaches: formalist, substantivist, Marxist and culturalist. Emphasis on localized consequences of global economic forces. Service learning component required.

**Prerequisites & Notes:** ANTH 201 or HNRS 203 or instructor permission  
Credits: 5

**ANTH 347 - The Ethnography of Communication**

Familiarizes students with methods of data collection and analysis used in linguistic anthropology through an examination of both classic and current literature. Examines the complex relationship between language and culture.

**Prerequisites & Notes:** ANTH 247.  
Credits: 5

**ANTH 350 - The Ecology of Human Variation**

Examines contemporary sociopolitical, health and related environmental issues starting with a historical and evolutionary perspective that emphasizes changes in human biology, diet, demography and disease, and the cultural milieu since the hunting and gathering past.

**Prerequisites & Notes:** ANTH 215 and either ANTH 201 or HNRS 203 or ANTH 210.  
Credits: 5

**ANTH 351 - Family and Kinship Organization**

Cross-cultural study of family types and the definition of social roles through kinship organization.

**Prerequisites & Notes:** ANTH 201 or HNRS 203.  
Credits: 5

**ANTH 352 - Cross-Cultural Study of Aging**

Explores aging and being old in a variety of cultures as well as our own in the context of an unprecedented worldwide population explosion of older people, examining longevity and the demography of aging, conceptualizations of the life course and late life, family and community roles of older people, gender differences and similarities of aging, status relations between and among people of different ages, health and health care.

**Prerequisites & Notes:** ANTH 201 or HNRS 203.  
Credits: 4

**ANTH 353 - Sex and Gender in Culture**

Cross-cultural study of gender stereotypes, gender and language, gender and work roles, gender and religion.

**Prerequisites & Notes:** ANTH 201 or HNRS 203.  
Credits: 5  
GUR Attributes: BCGM

**ANTH 361 - Native Peoples of North America**  
Ethnographic survey of the peoples and cultures.

**Prerequisites & Notes:** ANTH 201 or HNRS 203.  
Credits: 5  
GUR Attributes: BCGM

**ANTH 362 - Peoples of Asia**

Ethnographic survey of the peoples and cultures.

**Prerequisites & Notes:** ANTH 201 or HNRS 203.  
Credits: 5  
GUR Attributes: ACGM

**ANTH 365 - Peoples of Latin America**

Ethnographic survey of the peoples and cultures.

**Prerequisites & Notes:** ANTH 201 or HNRS 203.  
Credits: 5  
GUR Attributes: ACGM

**ANTH 406 - Archaeological Method and Theory**

History of theory and method in North American archaeology and the legacy of earlier goals. Current goals and the development of appropriate theory, method and empirical applications.

**Prerequisites & Notes:** ANTH 210 and ANTH 301.  
Credits: 5

**ANTH 410 - Archaeological Analysis and Interpretation**

Archaeological laboratory methods; artifact identification, classification, measurement; map reproduction, soil and feature profiles; use of photographs and other graphic methods.

**Prerequisites & Notes:** ANTH 210 and Junior or Senior status.  
Credits: 5

**ANTH 411 - Archaeology of Northwestern North America**

The prehistoric archaeology of the Northwest coast and plateaus; current explorations and

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interpretations in a context of paleoenvironmental and ethnohistorical evidence.

**Prerequisites & Notes:** ANTH 210 and one of ANTH 310 or ANTH 314 or ANTH 361.

Credits: 5

## **ANTH 415 - Archaeological Spatial Analysis**

Focuses on the application of advanced quantitative methods in spatial analysis to specific archaeological contexts and projects. Students will complete a major research project and present it to the class and as a paper.

**Prerequisites & Notes:** ANTH 201 and ANTH 335.

Credits: 3

## **ANTH 420 - Human Osteology and Forensic Anthropology**

After learning the human skeleton, the student will be trained in techniques for recovery of the body, reconstruction of the body's history (age, sex, race, etc.) and how to aid the crime investigator.

**Prerequisites & Notes:** ANTH 210 or ANTH 215 or ANTH 335 or ANTH 410 or permission of instructor.

Credits: 5

## **ANTH 422 - Nutritional Anthropology**

The study of human nutrition and metabolism from an anthropological perspective. Topics include the structure and function of the digestive system, the chemical composition of nutrients and the regulation by the body of nutrient stores and body composition. Focuses on using a comparative approach to elucidate a naturalistic human diet and the health consequences when this ideal is not met.

**Prerequisites & Notes:** ANTH 201 or HNRS 203, and ANTH 215 and BIOL 349 or permission of instructor.

Credits: 5

## **ANTH 423 - Human Evolution**

First half of seminar covers theory and anatomical changes for hominin species focusing on last 6 million years (that is, Ardipithecus and Australopithecus to present) and second half

considers sociocultural evolution (e.g., life history theory, mate choice, evolution of cognition, emotions, language).

**Prerequisites & Notes:** ANTH 102 or ANTH 210 or ANTH 215 and ANTH 301 or ANTH 308 or ANTH 310 or ANTH 350, or junior standing in Biology or Anthropology major, or instructor permission.

Credits: 5

## **ANTH 424 - Medical Anthropology**

Introduction to an area where biological and cultural anthropology interface. Includes health and disease in evolution, the relationships between disease and world view, the healer and the cultural milieu, and comparative studies of healing practices.

**Prerequisites & Notes:** ANTH 201 or HNRS 203, and junior standing or instructor permission.

Credits: 5

## **ANTH 428 - Cultural Resource Management**

Introduction to the field of cultural resource management including historic preservation, archaeological resource management, cultural resource management for subsistence and spiritual practices. Background on legislation and current practices, review of case studies and experience with actual projects.

**Prerequisites & Notes:** ANTH 210 and junior or senior status or instructor permission.

Credits: 4

## **ANTH 429 - Politics, Power and Inequality**

Examines how social stratification and inequality arise and become institutionalized in societies with centralized authority. Considers hierarchy and inequality in state and non-state societies, and examines the effects of inequality on popular participation in stratified, ranked and egalitarian societies.

**Prerequisites & Notes:** ANTH 301, and junior or senior status or permission of instructor.

Credits: 5

## **ANTH 440 - Cyborg Anthropology**

The cyborg is a life form that is part human and part machine. This course examines the shifting

conceptual and physical boundaries between humans and their techno-scientific creations through theoretical works, ethnographic accounts and popular cultural artifacts such as film.

**Prerequisites & Notes:** ANTH 201 or HNRS 203 or instructor permission.  
Credits: 5

#### **ANTH 447 - Anthropological Semiotics**

Myth, metaphor and media offer the material for this exploration of theories which offer insight into the relationship between language and mind.

**Prerequisites & Notes:** ANTH 347 and junior or senior status or permission of instructor.  
Credits: 5

#### **ANTH 453 - Women of the Global South**

Explores women's economic, religious, political and familial roles through topics such as development and globalization, violence, and women's movements. Student contributions to course topics emphasized through individual papers and group panel work.

**Prerequisites & Notes:** ANTH 301 and ANTH 353 and junior or senior status or permission of instructor.  
Credits: 5

#### **ANTH 454 - Participatory Action Research Methods**

Participatory Action Research is a methodology of researching, analyzing, and carrying out actions that directly benefit members (stakeholders) of a community. As a form of applied anthropology, PAR is a method that emphasizes working in collaboration with others to develop research questions, conduct research, analyze findings, present results, and create actions. In this course, graduate students will work with an identified community group (in most cases, one with which the student already has a great familiarity through participant-observation fieldwork methods in ANTH 471) to work on a PAR project.

**Prerequisites & Notes:** ANTH 303 or ANTH 471 or permission of instructor.  
Credits: 5

#### **ANTH 456 - Anthropology of War and Human Rights**

The course focuses on emic and etic perspectives of war and human rights. Investigates cultural relativism and anthropology with regard to war and violence. Cultural constructions of war and definitions of human rights are fundamental to an understanding of what it means to be human.

**Prerequisites & Notes:** ANTH 301 and junior or senior status.  
Credits: 4

#### **ANTH 457 - The Anthropology of Death and Dying**

The course considers death and dying anthropologically as cultural constructs. The course explores a wide range of cultures from a variety of interdisciplinary and interactive perspectives in order to further our understanding of what it means to be human. Studies death and dying in order to broaden our understanding of the human cultural experience. Field trips required.

**Prerequisites & Notes:** ANTH 301 and junior or senior status.  
Credits: 5

#### **ANTH 460 - Culture and Society of Japan**

Overview of Japanese culture and society, its pre-history and historic formation, emphasizing contemporary social organization and social relations in urban and rural society. Examines Japan's solutions to the problems of modern industrial society.

**Prerequisites & Notes:** ANTH 362 or permission of instructor.  
Credits: 4

#### **ANTH 462 - Native Peoples of the Northwest**

Tribal distributions, social organization and ecological adaptation and social change with emphasis on the Native peoples of Washington state.

**Prerequisites & Notes:** ANTH 361  
Credits: 5

#### **ANTH 463 - Peoples of East and Southeast Asia**

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An ethnographic in-depth study of the national and minority peoples of China, mainland and insular Southeast Asia. Emphasis on special topics, including ecology, prehistory and selected cultural groups. Readings focus on original monographs.

**Prerequisites & Notes:** ANTH 362 or permission of instructor.

Credits: 5

### **ANTH 465 - Peoples of Mexico and Central America**

Overview of cultures and social relations in Mesoamerica, with an emphasis on indigenous and rural communities, subsistence and survival issues, and factors underlying political and economic change.

**Prerequisites & Notes:** ANTH 365 or permission of instructor.

Credits: 5

### **ANTH 466 - Reproductive Ecology**

Study of human reproduction from an anthropological perspective. Topics include the structure and function of the reproductive system, including hormonal control of ovarian cycling, but also culturally mediated behaviors that influence reproduction. Focus is on variation in the fertility between populations and among couples within populations.

**Prerequisites & Notes:** ANTH 201 or HNRS 203, and ANTH 215 and BIOL 349 or permission of instructor.

Credits: 5

### **ANTH 469 - Directed Internship**

Application of anthropological methods and theory in an applied setting. Interns work at least 10 hours per week at the work site, in the type of work specified in the internship contract. In addition students complete several written assignments, Repeatable to a maximum of 15 credits. No more than 10 credits in internship may be counted toward the major.

**Prerequisites & Notes:** permission of instructor.

Credits: 5-10

### **ANTH 470 - Museology Studies**

Internship at the Whatcom Museum of History and Art or other local museums. Students may select an area of museum specialization in most cases; essay questions and a paper are also required. Repeatable to a maximum of 10 cr.

**Prerequisites & Notes:** ANTH 301 and junior or senior, or permission of faculty liaison.

Credits: 3-5

### **ANTH 471 - Field Work Methods in Cultural Anthropology**

The study of ethnographic field work methods through exercises in class and a major field work project in the community. Discussion of topics, including the anthropologist as field worker and the ethics of field work.

**Prerequisites & Notes:** ANTH 301 or ANTH 303 and junior or senior status, or permission of instructor.

Credits: 7

### **ANTH 472 - Visual Anthropology**

Examination of photographic representation of people by anthropologists, ethnographic filmmakers, indigenous people, media and other groups. Analytical skills and applications are emphasized and theoretical perspectives are explored.

**Prerequisites & Notes:** ANTH 301 or ANTH 303 and junior or senior status, or permission of instructor.

Credits: 5

### **ANTH 473 - Field Course in Ethnography**

Course is partly classroom-based and partly field-based research through participation in on-site projects. Actual projects vary by quarter and instructor.

**Prerequisites & Notes:** ANTH 201 or HNRS 203 and permission of instructor.

Credits: 5-12

### **ANTH 475 - Global Migration**

Economic, political and human factors motivating movements of people and affecting their transitions into new societies; comparative exploration of issues, case studies and global

trends, with specific focus on implications for policy and services.

**Prerequisites & Notes:** ANTH 201 or HNRS 203.  
Credits: 5

#### **ANTH 476 - Borderlands**

Comparative examination of simultaneous separating and integrating functions of borders, significance of border regions as vital transition zones, and transboundary policy needs associated with accelerated flows of people, goods and ideas; particular focus on U.S.-Mexico and US.-Canada borderlands.

**Prerequisites & Notes:** ANTH 201 or HNRS 203.  
Credits: 5

#### **ANTH 480 - Applied Anthropology**

Use of anthropology to solve human problems; examines ethics, interventions and policy applications regarding contemporary social issues.

**Prerequisites & Notes:** ANTH 301 or ANTH 303.  
Credits: 5

#### **ANTH 481 - Childhood and Culture**

The process of socialization or enculturation viewed from a cross-cultural perspective.

**Prerequisites & Notes:** ANTH 201 or HNRS 203 or permission of instructor.  
Credits: 5

#### **ANTH 484 - Intercultural Education**

Comparative and anthropological study of educational issues. Examines learning in other cultures, home-school linkages, minority student achievement and multi-cultural curricula.

**Prerequisites & Notes:** ANTH 201 or HNRS 203 or permission of instructor.  
Credits: 5

#### **ANTH 490 - Senior Seminar in Anthropology**

Capstone seminar in anthropology. Topics vary, emphasis is on current research questions in anthropology. Students write a research proposal, conduct a research project and present the findings. Repeatable to a maximum of 10 credits.

**Prerequisites & Notes:** Senior status in anthropology.  
Credits: 5

#### **ANTH 495 - Teaching-Learning Processes in Anthropology**

Practicum as discussion leaders in anthropology courses. May be repeated once for departmental credit if taken from a different instructor.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 3

#### **ANTH 496 - Portfolio Assembly**

Student assembles and submits portfolio contents in four areas: research, competence, data analysis, critical comprehension and synthetic comparison, under continuing direction of departmental academic adviser. S/U grading.

**Prerequisites & Notes:** Senior status in anthropology.  
Credits: 1

Grade Mode: S/U

#### **ANTH 501 - History of Anthropology**

Development of principal theoretical orientations and methods in the cultural and historical setting; development of anthropology as a discipline.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.  
Credits: 5

#### **ANTH 502 - Theory in Anthropological Research**

Issues relating to use of theory in contemporary anthropological research; examination of major writings and their implications.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.  
Credits: 5

#### **ANTH 503 - Research Design and Method**

Analysis of major theoretical approaches; research methods and procedures; relationship of theory and method in formulating research problems.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.

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Credits: 5

## **ANTH 506 - Archaeological Method and Theory**

History of theory and method in North American archaeology and the legacy of earlier interpretive frameworks. Current goals of the discipline and the development of appropriate theory, method and empirical applications.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.  
Credits: 5

## **ANTH 510 - Applied Archaeological Analysis and Interpretation**

Advanced design and implementation of archaeological laboratory methods to a specific research project.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.  
Credits: 5

## **ANTH 511 - Current Archaeological Research in Northwestern North America**

Advanced survey of current literature in Pacific Northwest archaeology in seminar format with preparation of a major research paper.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.  
Credits: 5

## **ANTH 515 - Practicum in Archaeological Spatial Analysis**

Application of advanced quantitative spatial analysis techniques to specific archaeological contexts and projects. Students will complete a major research project and paper.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.  
Credits: 5

## **ANTH 520 - Human Osteology**

Advanced study of human osteology. The latest methods in reconstruction of the individual.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.

Credits: 5

## **ANTH 522 - Nutritional Anthropology**

Advanced study of human nutrition and metabolism from an anthropological perspective. Topics include the structure and function of the digestive system, the chemical composition of nutrients and the regulation by the body of nutrient stores and body composition. Each student will prepare a major research paper and presentation.

**Prerequisites & Notes:** graduate student in good standing in anthropology and other programs with program advisor approval  
Credits: 5

## **ANTH 524 - Applied Medical Anthropology**

Advanced study of the use of medical anthropological method and theory in contemporary health care systems or in the analysis of health and disease in past populations.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.  
Credits: 5

## **ANTH 525 - Primate Evolution**

Advanced study of primate paleontology. Each student is expected to become expert on some aspect of the fossil record.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.  
Credits: 5

## **ANTH 528 - Applied Cultural Resource Management**

Application of cultural resource management methods to specific management problems. Students will prepare a professional quality cultural resource management plan or nomination form.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.  
Credits: 5

## **ANTH 547 - Semiotic Anthropology**

Advanced study of theoretical approaches to meaning in linguistic anthropology, including but not limited to Piercean semiotics, trope theory, and

methods for theorizing context.

**Prerequisites & Notes:** Graduate standing.  
Credits: 5

### **ANTH 553 - Women of the Global South**

Examines a variety of contemporary issues facing women of the South, such as economic realities, family responsibilities, health issues, and women's rights. Emphasis on individual and group work to examine selected topics and to gain in-depth knowledge about women in specific countries.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.  
Credits: 5

### **ANTH 554 - Participatory Action Research Methods**

Participatory Action Research is a methodology of researching, analyzing, and carrying out actions that directly benefit members (stakeholders) of a community. As a form of applied anthropology, PAR is a method that emphasizes working in collaboration with others to develop research questions, conduct research, analyze findings, present results, and create actions. In this course, graduate students will work with an identified community group (in most cases, one with which the student already has a great familiarity through participant-observation fieldwork methods in ANTH 571) to work on a PAR project.

**Prerequisites & Notes:** ANTH 571 or permission of instructor.  
Credits: 5

### **ANTH 563 - Peoples of East and Southeast Asia**

Advanced study of selected important topics regarding the peoples and cultures of China, mainland and insular Southeast Asia. Emphasis on work to gain in-depth knowledge and understanding of selected cultures and/or theoretical-analytical topics of special relevance to the region.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.  
Credits: 5

### **ANTH 565 - Peoples of Mexico & Central America**

Advanced ethnological analysis of cultures and social relations in Mesoamerica, with emphasis on ecological, economic and political issues and implications for community resources for facing globalization.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.  
Credits: 5

### **ANTH 566 - Reproductive Ecology**

Advanced study of human reproduction from an anthropological perspective in a seminar format. Will cover topics including the structure and function of the reproductive system, including hormonal control of ovarian cycling, but also culturally mediated behaviors that influence reproduction. Students will prepare a major research paper presentation.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 5

### **ANTH 571 - Field Work Methods in Cultural Anthropology**

The study of ethnographic field work methods through exercises in class and a major field work project in the community. Discussion of topics, including the anthropologist as field worker and the ethics of field work.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.  
Credits: 7

### **ANTH 572 - Visual Anthropology**

Examination of photographic/digital image representation of people by anthropologists, ethnographic filmmakers, indigenous people, media and other groups. Requires analytical skills and applications and explores theoretical perspectives. Requires two projects with accompanying presentations.

**Prerequisites & Notes:** Graduate status.  
Credits: 5

### **ANTH 576 - Borderlands**



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Advanced comparative examination of separating and integrating functions of borders, border regions as transition zones, and policy implications, with emphasis on U.S. borders with Mexico and Canada.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.  
Credits: 5

## **ANTH 580 - Applied Anthropology**

Advanced investigation of the use of anthropology to solve human problems; ethics, interventions and policy applications regarding contemporary social issues.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.  
Credits: 5

## **ANTH 581 - Childhood and Culture**

Advanced cultural analysis of the process of socialization, child welfare and policy relating to children.

**Prerequisites & Notes:** Graduate status in the anthropology program or permission of instructor.  
Credits: 5

## **ANTH 690 - Thesis**

Repeatable to a maximum of 12 cr. S/U grading

**Prerequisites & Notes:** formal advancement to candidacy for MA in Anthropology  
Credits: 1-12  
Grade Mode: S/U

# Canadian-American Studies

## Introduction

The Canadian-American Studies major and minor are designed to expand knowledge of Canada and understanding of Canadian-American issues and problems.

The Canadian-American studies curriculum prepares students for positions in businesses, government agencies, communications and international organizations operating in the U.S., Canada or globally. Canadian-American studies combines well with other majors and minors to add depth and international expertise.

Examples include combinations with international business, marketing, geography, tourism, and other specialties for employment in firms doing business with Canada or with Canadians. Political scientists, sociologists, environmental scientists and communications specialists and others employed by government agencies and nongovernment organizations will find the program of substantial value. Canadian-American studies has a strong interdisciplinary orientation involving classes ranging from economics to literature. Opportunities for study in Alberta, British Columbia, Ontario, and Québec are available.

For program advisement, contact Chuck Hart, program manager, phone 360-650-3728, fax 360-650-3995, e-mail: Chuck.Hart@wwu.edu.

## Participating Canadian-American Studies Faculty

**DONALD ALPER**, Director, Canadian-American Studies. Political science. Canadian politics/government.

**AMIR ABEDI**, Political Science. Comparative politics, European politics.

**TROY ABEL**, Environmental Studies. Environmental policy and resolutions.

**BIDISHA BISWAS**, Political Science. Security and counterterrorism.

**DANIEL BOXBERGER**, Anthropology. First Nations, Native Peoples and natural resources.

**PATRICK BUCKLEY**, Geography. Transborder economic modeling and GIS.

**SARAH CAMPBELL**, Anthropology. Pre-history of the Northwest coast.

**SARAH CLARK-LANGAGER**, Western Gallery Director.

**CECILIA DANYSK**, History. Canadian history.

**STEVEN GLOBERMAN**, Kaiser Professor of International Business and Director of the Center for International Business. Canadian economy.

**LEE GULYAS**, English. Canadian Literature.

**VICKI HAMBLIN**, French. French literature.

**CÉCILE HANANIA**, French. Twentieth century French literature and literary theory and Québec culture.

**MARY ANN HENDRYSON**, Economics. Canadian economic history, cross border economic relations.

**CAROL JANSON**, Art. Art history.

**T.H. KAMENA**, Political Science. Canadian politics/government.

**CHRISTINA KEPPIE**, French. Acadian culture.

**KEVIN LEONARD**, History. Pacific Northwest history.

**ROBERT LOPRESTI**, Wilson Library. Canadian government information.

**JAMES LOUCKY**, Anthropology. North American borderlands.

**GEORGE MARIZ**, History, Honors Program Director. Britain, British Empire, European intellectual history.

**JEAN MELIOUS**, Environmental Studies. Canadian environmental policy and law.

**ROBERT MONAHAN**, Professor Emeritus, Geography. Canadian geography.

**EDWARD OUSSELIN**, French. French cultural studies and film studies.

**NANCY PAGH**, English. Canadian literature.

**KRISTEN PARRIS**, Political science. East Asia-Canada immigration.

**JOHN PURDY**, English. Canadian literature.

**THOMAS ROEHL**, Management. International business and management.

**DAVID ROSSITER**, Geography. Canadian geography, environmental history and natural resource

## CANADIAN-AMERICAN STUDIES

management.

**DEBRA SALAZAR**, Political science. Forest policy, environmental policy, political economy.

**PRESTON SCHILLER**, Adjunct faculty, Transportation, environment.

**SARA SINGLETON**, Political Science. Public policy and environmental politics.

**PAUL STORER**, Economics. Canadian economic policy, macroeconomics, labor economics.

### *Named Professorships*

Ross Distinguished Professorship of Canada/U.S. Business and Economic Relations (position is in the College of Business and Economics).

### *Study Abroad*

The Center for Canadian-American Studies encourages students to spend one or more quarters in a study abroad program in Canada. We offer a number of exchange opportunities with universities across Canada. For more information, please contact Chuck Hart, program manager, phone 360-650-3728 or send e-mail to [Chuck.Hart@wwu.edu](mailto:Chuck.Hart@wwu.edu).

## Bachelor of Arts

### **Canadian-American Studies, BA**

Canadian/American Studies, College of Humanities and Social Sciences

#### **50 credits**

#### **Introduction/What is the Study of Canadian-American Studies?**

Canada and the United States are the two most interdependent countries in the world. Virtually all the Fortune 500 companies do business with Canada, as do all large government agencies. The Canadian-American Studies major provides a comprehensive and accessible international experience focusing on Canada and Canada-US relations.

Students pursue areas of study such as Canada-US environmental policy, political and security ties between Canada and the United States, and economic relations between the two nations. The study of the Canada-US relationship also provides a lens through which critical issues facing the global community are examined.

#### **Why Consider a Canadian-American Studies Major?**

The interdisciplinary program encourages students to problem solve and think of big-picture solutions to international issues. Students gain a unique understanding of different intellectual traditions and how to bridge gaps in understanding. This training prepares graduates to take leadership roles in diverse settings that require critical thinking and societal problem solving.

Recent Western graduates have found fulfilling careers working for the Canadian Department of Foreign Affairs and International Trade, directing internet marketing for a Canada-US import/export firm, serving as a US federal government liaison to a municipality for emergency preparedness, working for Google in their map division and coordinating border and emergency management programs for the cross-border Pacific Northwest Economic Region.

#### Contact Information

#### **Undergraduate Advisor**

Chuck Hart

Canada House 201

360-650-3728

[Chuck.Hart@wwu.edu](mailto:Chuck.Hart@wwu.edu)

### Sample Careers

FBI Counter-Terrorism Agent | High School Teacher | Program Manager at a Foreign Consulate | US Navy JAG Officer | NGO Education Director | Small Business Owner | University Professor | Legislative Chief of Staff | Tourism/Marketing Officer | Law School Student | Aerospace Manager

### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admissions and Declaration Process):

To declare the major, contact the Center for Canadian-American Studies undergraduate advisor, Chuck Hart.

**Advising Tips:** A formal program of study is initially designed by the student in consultation with the Canadian-American Studies Department undergraduate advisor, Chuck Hart.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

Track 1 - Canadian-American studies with French language

- C/AM 200 - Introduction to Canadian Studies
- C/AM 401 - Research Problem Identification and Development
- C/AM 402 - Research Analysis and Writing
- ENG 415 - Special Topics in National Literatures (under advisement)
- FREN 201 - Intermediate French
- FREN 202 - Intermediate French
- FREN 203 - Intermediate French (or equivalent)
- HIST 277 - Canada: A Historical Survey
- PLSC 406 - Canadian Government and Politics
- One course from:
  - ENVS 331 - Canada: Society and Environment
  - ENVS 430 - Borderlands
- Select additional credits from the following to complete the major:
  - ANTH 361 - Native Peoples of North America
  - ANTH 411 - Archaeology of Northwestern North America
  - ANTH 462 - Native Peoples of the Northwest
  - ANTH 476 - Borderlands
  - A/HI 490 - Seminar: Exhibition Theory and Practice
  - C/AM 400 - Independent Study
  - C/AM 410 - Study Canada Summer Institute
  - ECON 364 - Topics in Canadian Economic History
  - ECON 365 - The Canadian Economy
  - ENVS 452 - International Environmental Policy
  - FREN 332 - Civilisation Et Culture Du Quebec
  - FREN 401 - Elements De Stylistique
  - HIST 376 - French Colonial Canada: 1534-1763
  - HIST 499 - Historical Research (under advisement)
  - JOUR 460 - Special Reporting Project
  - PLSC 301 - The British Parliamentary System

## CANADIAN-AMERICAN STUDIES

- SOC 390 - Global Families

Track 2 (50 credits) - Canadian-American studies with area of concentration

- C/AM 200 - Introduction to Canadian Studies
- C/AM 401 - Research Problem Identification and Development
- C/AM 402 - Research Analysis and Writing
- ENG 415 - Special Topics in National Literatures (under advisement)
- HIST 277 - Canada: A Historical Survey
- PLSC 406 - Canadian Government and Politics
- One course from:
  - ENVS 331 - Canada: Society and Environment
  - ENVS 430 - Borderlands
- Plus 2 upper-division courses in an area of specialization (in consultation with Canadian-American)
- Select additional credits from the following to complete the major:
  - ANTH 361 - Native Peoples of North America
  - ANTH 411 - Archaeology of Northwestern North America
  - ANTH 462 - Native Peoples of the Northwest
  - ANTH 476 - Borderlands
  - A/HI 490 - Seminar: Exhibition Theory and Practice
  - C/AM 400 - Independent Study
  - C/AM 410 - Study Canada Summer Institute
  - ECON 364 - Topics in Canadian Economic History
  - ENVS 452 - International Environmental Policy
  - FREN 101 - Elementary French
  - FREN 102 - Elementary French
  - FREN 103 - Elementary French
  - FREN 201 - Intermediate French
  - FREN 202 - Intermediate French
  - FREN 203 - Intermediate French
  - FREN 332 - Civilisation Et Culture Du Quebec
  - FREN 401 - Elements De Stylistique
  - HIST 376 - French Colonial Canada: 1534-1763
  - HIST 499 - Historical Research
  - JOUR 460 - Special Reporting Project
  - PLSC 301 - The British Parliamentary System
  - SOC 390 - Global Families

## Minor

### Canadian-American Studies Minor

Department of Canadian/American Studies, College of Humanities and Social Sciences

**30 credits**

**Introduction/What is the Study of Canadian-American Studies?**

## Why Consider a Canadian-American Studies Minor?

### Contact Information

#### Minor Information:

**Academic Department Manager**

### Sample Careers

### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- C/AM 200 - Introduction to Canadian Studies
- HIST 277 - Canada: A Historical Survey
- PLSC 406 - Canadian Government and Politics
- One course from:
  - ENVS 331 - Canada: Society and Environment
  - ENVS 430 - Borderlands
- 12 additional credits under advisement from:
  - ANTH 361 - Native Peoples of North America
  - ANTH 411 - Archaeology of Northwestern North America
  - ANTH 462 - Native Peoples of the Northwest
  - ANTH 476 - Borderlands
  - A/HI 490 - Seminar: Exhibition Theory and Practice
  - C/AM 400 - Independent Study
  - C/AM 401 - Research Problem Identification and Development
  - C/AM 402 - Research Analysis and Writing
  - C/AM 410 - Study Canada Summer Institute
  - ECON 364 - Topics in Canadian Economic History
  - ECON 365 - The Canadian Economy
  - ENG 415 - Special Topics in National Literatures
  - ENVS 452 - International Environmental Policy
  - FREN 101 - Elementary French
  - FREN 102 - Elementary French
  - FREN 103 - Elementary French (or equivalent)
  - FREN 201 - Intermediate French
  - FREN 202 - Intermediate French
  - FREN 203 - Intermediate French (or equivalent)
  - FREN 332 - Civilisation Et Culture Du Quebec
  - FREN 401 - Elements De Stylistique
  - HIST 376 - French Colonial Canada: 1534-1763

## CANADIAN-AMERICAN STUDIES

- HIST 499 - Historical Research (under advisement)
- JOUR 460 - Special Reporting Project
- PLSC 301 - The British Parliamentary System
- SOC 390 - Global Families

## Canadian-American Studies Courses

### **C/AM 200 - Introduction to Canadian Studies**

A basic interdisciplinary course of studies covering the major physical, historical and sociopolitical aspects of Canada.

Credits: 5

GUR Attributes: SSC

### **C/AM 401 - Research Problem Identification and Development**

Directed research on a problem or in an area of interest.

**Prerequisites & Notes:** C/AM 200, 15 credits of core courses.

Credits: 3

### **C/AM 402 - Research Analysis and Writing**

Analysis and writing on the research findings in C/AM 401. A writing proficiency course.

**Prerequisites & Notes:** C/AM 401

Credits: 3

### **C/AM 410 - Study Canada Summer Institute**

Intensive survey course featuring expert instruction from WWU faculty and distinguished speakers from Canada and the US. Topics include: Canadian history, geography, government, culture, free trade and environmental issues, First Nations and Canada-US relations. Participants are introduced to a variety of curriculum materials, visit Canada, experience its culture, and develop a curriculum project that meets national standards and expands their personal teaching portfolios.

Repeatable to a maximum of 9 credits.

Credits: 3

### **C/AM 444 - Canadian Studies Internship**

Work as research and/or management assistant with a local, state or federal government body or private organization. No more than 10 credits in internship may be counted towards the major without permission of the chair. Repeatable up to 15 credits, including original course.

**Prerequisites & Notes:** Completion of 3 of six core classes: C/AM 200; HIST 277; ENVS 331 or ENVS 430; ENG 415 or PLSC 406.

Credits: 3-10

### **C/AM 489 - Managing An International Ecosystem**

A research seminar that examines how economic, environmental, social and political agendas affect the shared international ecosystem - Georgia Basin/Puget Sound. Course focuses on the interests of various stakeholders and the efforts taken to manage the cross-border environmental issues. The course involves cross-border travel and field work and thus participants require a passport. In some years, the course will involve collaborations with students and faculty from Canadian Universities. Also offered as ESTU 489 and PLSC 489.

**Prerequisites & Notes:** Junior Status or Permission of Instructor.

Credits: 5

# Communication Sciences and Disorders

## Introduction

### *The Disciplines*

Speech-language pathology and audiology are disciplines that have developed out of a concern for people with communication disorders. Preparation leading to a degree in communication sciences and disorders includes a wide range of courses and a variety of clinical practicum opportunities working with the infant through geriatric populations.

Students who intend to seek employment in this profession, whether in a public school, clinic, rehabilitation center, or hospital setting, are advised that a master's degree in speech-language pathology or a clinical doctorate in audiology and certification/licensure at the state and/or national levels are required. Out-of-state students should recognize that other requirements may exist for employment in their locales.

### *Degree Programs in Communication Sciences and Disorders*

The Department of Communication Sciences and Disorders (CSD) offers both the Bachelor of Arts and the Master of Arts degrees. The Bachelor of Arts degree is a pre-professional degree that prepares the student for pursuing graduate studies in either audiology or speech-language pathology. For the bachelor's degree, a minor area of study is required. The minor must be approved by the student's academic advisor. Suggested areas include audiology (in moratorium), biology, business, education, psychology, or sociology. Individually designed minors are permissible with faculty advisor approval.

The Master of Arts degree is a professional degree and partially fulfills certification requirements at both the state and national levels. A student may specialize in speech-language pathology at the master's level. The MA degree program, Speech Language Pathology, is accredited by the American Speech-Language-Hearing Association (ASHA). The department does not offer a clinical doctorate program in audiology.

Due to the clinical requirements of the programs, enrollment in the undergraduate and graduate major may be limited.

A post-baccalaureate program is offered for those with an undergraduate degree in a field other than communication sciences and disorders and for those who hold a CSD degree that was completed five or more years ago. This program is designed to prepare such students for graduate-level study in speech-language pathology or audiology. The 45-50 credits four-quarter lockstep program begins fall quarter. The post-baccalaureate program is self-supporting and has a tuition rate that differs from that of regularly enrolled undergraduate students.

Students interested in the post-baccalaureate program need to complete the Extension Undergraduate Application. Extension admission and registration information is available from Extended Education, 360-650-7780.

**NOTE:** Enrollment in the post-baccalaureate program does not guarantee a place in the graduate program.

### *Accreditation*

The master of arts degree education program in speech-language pathology at Western Washington University is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association, 2200 Research Boulevard #310, Rockville, Maryland 20850, 800-498-2071 or 301-296-5700. The Department of Communication Sciences and Disorders is also accredited by the National Council for the Accreditation of Teacher Education.

### *Certification/Licensure in Speech-Language Pathology/Audiology*

There are three types of professional certification/licensure in the field: state licensure from the Washington State Department of Health; certification as an educational staff associate from the Washington state Office of



## COMMUNICATION SCIENCES AND DISORDERS

the Superintendent of Public Instruction; and the Certificate of Clinical Competence, a national certification, from ASHA. Consult the department for additional information.

### Faculty

**BARBARA MATHERS-SCHMIDT** (1991) Chair and Professor. BA, Lewis and Clark College; MS, Portland State University; PhD, University of Washington. (speech-language pathology).

**EVA BAHARAV** (2003) Associate Professor. BA, MA, University of California-Berkeley; PhD, Boston University. Undergraduate advisor (speech-language pathology).

**RIEKO M. DARLING** (1995) Associate Professor. BS, MS, PhD, The Florida State University. Transfer advisor, undergraduate advisor; director, audiology clinics (audiology).

**MICHAEL R. FRAAS** (2012) Assistant Professor. BA, Bowling Green State University; MA, University of Cincinnati; PhD, University of Cincinnati (speech-language pathology).

**KIMBERLY A. PETERS** (2002) Associate Professor. BA, Trinity College; MA, PhD, University of Connecticut. Undergraduate advisor; director, aural rehabilitation clinics (audiology).

### *Clinical Educators*

**KAREN-MARGRETHE BRUUN** (2010) Internship coordinator; Graduate program advisor; MA, Western Washington University (speech-language pathology).

**ANNA CHAMBERLIN** (1998) BA, MA, Western Washington University (audiology).

**JENNIFER GRUENERT** (2008) BA, MS, University of Washington (speech-language pathology)

**JILL K. HUNT-THOMPSON** (1977) BA, MA, Western Washington University (speech-language pathology).

**GEORGETTA LILLEY** (1988) BS, MEd, California University of Pennsylvania (speech-language pathology).

**GAIL NOBLE-SANDERSON** (2010) BA, MA, Western Washington University (speech-language pathology).

**DIANA PECHTHALT** (2003) BA, MA, Western Washington University (speech-language pathology).

**YARROW POSPISIL** (2001) BS, University of Nebraska; MA, Western Washington University (speech-language pathology).

**TERRY SACKS** (2005) Director, speech-language pathology clinic. BS, MA, Northwestern University. (speech-language pathology).

**LESLEY STEPHENS** (2006) BA, MA, University of Kansas

### Declaration Process

Students wishing to declare a major in Communication Sciences and Disorders must have:

1. completed at least 75 credits;
2. successfully completed or be currently enrolled in CSD 251;
3. achieved a Western GPA (based on at least 12 credits) of 2.70 or higher. A grade of at least B- (2.70)

in each of the core courses (CSD 251, 352, 354, and 356) may be substituted for the overall 2.70 GPA.

As stated in the section regarding general university academic policies, "any grade below a C- is unacceptable in the student's major or minor." In the Communication Sciences and Disorders Department students also are required to complete each prerequisite course with a grade of C- or better before enrolling in the courses for which that serves as a prerequisite.

### Other Departmental Information

#### *Essential Functions of Candidates for Program Admission and Continuance*

#### *Introduction*

The CSD department's speech-language pathology and audiology preparation programs lead to graduate degrees in speech language pathology and/or audiology. The core curriculum is designed to support student attainment of the academic and clinical competencies needed for graduation and for licensure in the state of

Washington. The education of a speech-language pathologist or audiologist requires assimilation of knowledge, acquisition of skills, and development of judgment through patient care experience in preparation for independent and appropriate decision-making practices. The current practices of speech-language pathology and audiology emphasize collaboration among audiologists, speech-language pathologists, other allied health care professionals, physicians, and patients.

### *Policy*

The accredited graduate program in the CSD program at Western adheres to the standards set by ASHA. Within ASHA standards, the CSD program has the freedom and ultimate responsibility for the selection of students; the design, implementation, and evaluation of the curriculum; the evaluation of student progress; and the determination of who should be awarded a degree.

Faculty and staff in the CSD department have a responsibility for the welfare of patients tested, treated, or otherwise affected by students enrolled in the CSD program. The department has the ultimate responsibility to the public to assure that its graduates can become fully competent professionals, capable of delivering quality care in a timely manner and preserving the well-being of the patients they serve. Thus, it is important that persons admitted, retained, and graduated possess the intelligence, integrity, compassion, humanitarian concern, and physical and emotional capacity necessary to practice in communication sciences and disorders. No student in CSD may participate as a primary clinician in the clinic or an internship until cleared by the Washington State Office of Superintendent of Public Instruction and the Federal Bureau of Investigation background check. Clearance is valid for specified time frames. Procedure and fee information are provided to students upon acceptance into the graduate program.

The CSD department is committed to the principle of equal opportunity. The University, College, and department do not discriminate on the basis of race, color, creed, religion, national origin, gender, sexual orientation, age, marital status, disability, disabled veteran or Vietnam-era veteran status. When requested, the University will provide reasonable accommodation to otherwise qualified students in the department. To fulfill this responsibility, the department has established academic standards and minimum essential requirements that must be met with or without reasonable accommodations in order to participate in the program and graduate.

### *Program*

The CSD department endeavors to select applicants who have the ability to become highly competent speech-language pathologists and audiologists. Admission and retention decisions are based not only on satisfactory prior and ongoing academic achievement, but also on nonacademic factors that serve to ensure that the candidate can complete the essential functions of the academic and clinical program required for graduation. Essential functions, as distinguished from academic standards, refer to those cognitive, physical, and behavioral abilities that are necessary for satisfactory completion of all aspects of the curriculum, and the development of professional attributes required by the faculty of all students at graduation. The essential functions required by the curriculum are in the following areas: motor, sensory, communication, intellectual/cognitive (conceptual, integrative, and quantitative abilities for problem solving and diagnosis), behavioral/emotional, and the professional aspects of the performance of a speech-language pathologist and/or audiologist.

- *Motor Skills.* The student should have sufficient motor function to be able to execute movements required to provide with acuity, accuracy, and facility a complete speech, language, and/or audiologic examination and provide therapeutic services to patients of all ages and both genders in all clinical situations. The student must have the ability to safely assist patients in moving, for example, from room to room, from chair to chair, on and off an examination table.
- *Sensory/Observation.* The CSD curriculum requires essential ability in information acquisition. The student must have the ability to master information presented in course work in the form of lectures, written materials, and projected images. The student must also be able to acquire the information presented through demonstrations and experiences in the clinical training portion of the program. The student must be able to observe a patient accurately, both at a distance and close at hand, and

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observe and appreciate nonverbal communication and manual signs when performing clinical assessments and treatment activities. The student must have the ability to take a case history and perform a visual examination of various oral and craniofacial structures (i.e., ear, throat, oral cavity, skull, et cetera). The student must have sufficient sensory capability to perform all required examination and treatment protocols using instruments and tools necessary for accurate, efficient, and timely completion of such activities.

- *Communication.* The student must be able to accurately, effectively, and sensitively communicate information on patient status with other students, faculty, staff, patients, families, and other professionals. This information must be communicated in a succinct yet comprehensive manner and in settings in which time available may be limited. These skills require the ability to assess and effectively communicate all relevant information including the significance of nonverbal responses. These skills also require the ability to immediately assess incoming information to allow for well-focused, appropriate follow-up inquiry. The student must be capable of responsive, empathetic listening to establish rapport in a way that promotes openness on issues of concern and sensitivity to potential cultural differences. Students must express ideas and feelings clearly and demonstrate a willingness and ability to give and receive feedback.
- *Cognitive.* The student must have the cognitive abilities necessary to master relevant content in basic science and clinical courses at a level deemed appropriate by the faculty and professional staff. These skills may be described as the ability to comprehend, memorize, analyze, and synthesize material. Students must be able to develop reasoning and decision-making skills appropriate to the practice of speech-language pathology and/or audiology.
- *Behavior/Emotional.* The student must possess the emotional health required for the full utilization of his or her intellectual abilities, the exercise of good judgment, and the prompt completion of all responsibilities attendant to the diagnosis and treatment of communication disorders in patients. In addition, the student must be able to maintain mature, sensitive, and effective relationships with patients, students, faculty, staff, and other professionals under all conditions, including highly stressful situations. The student must have the emotional stability to function effectively under stress and to adapt to an environment that may change rapidly without warning and/or in unpredictable ways. The student must be able to experience empathy for the situations and circumstances of others and effectively communicate that empathy. The student must know if his or her values, attitudes, beliefs, emotions, and/or experiences affect his or her perceptions and relationships with others. The student must be willing and able to examine and change his or her behavior when it interferes with productive individual or team relationships. The student must possess skills and experience necessary for effective and harmonious relationships in diverse learning and working environments.
- *Professional.* The student must possess the ability to reason judiciously and practice speech-language pathology and/or audiology in an ethical manner. Students must be willing to learn and abide by professional standards of practice. Students must possess attributes that include compassion, empathy, altruism, integrity, honesty, responsibility, and tolerance. The student must be able to engage in patient care delivery in all clinical settings and be able to deliver care to all patient populations, including but not limited to, children, adolescents, adults, developmentally disabled persons, medically compromised patients, and vulnerable adults.

### *Writing Proficiency Guidelines*

Majors in Communication Sciences and Disorders must complete a minimum of three writing proficiency points in approved upper-division writing proficiency courses at WWU with a minimum grade of C-. Students must meet with an undergraduate advisor no later than the fourth week of winter quarter of the junior year to file a plan of study. The plan of study will include signing up for specific writing proficiency courses and labs.

### **Graduate Study**

For a concentration leading to the Master of Arts degree, see the *Graduate School* section of this catalog.

# Bachelor of Arts

## Communication Sciences and Disorders, BA

Communication Sciences and Disorders, College of Humanities and Social Sciences

### 65 Credits

#### Introduction/What is the Study of Communication Sciences and Disorders?

Communication Sciences and Disorders includes two disciplines, Speech-Language Pathology and Audiology, which have developed out of a concern for people with communication disorders. The academic and clinical curriculum at the undergraduate level includes a wide range of courses and clinical practicum opportunities. Students study normal communication processes and disorders. Courses in normal processes include Language Development, Speech Acoustics, Hearing Science, and Anatomy and Physiology. Courses regarding disorders cover Language Disorders, Phonological Disorders, and Hearing Disorders, for example. The undergraduate education prepares students to pursue a graduate degree. A master's degree in Speech-Language Pathology or a clinical doctorate degree in Audiology and certification at the national level are required to engage in professional practice.

#### Why Consider a Communications Sciences and Disorders Major?

Many people easily talk with family, friends, and colleagues every day. Although we often take language, speech, and hearing for granted, these processes are extraordinarily complex. Furthermore, anyone at any age can be affected by illness or injury that will impair the ability to talk or hear. In fact, one out of every six Americans has a communication disorder. Each one can be helped in some way by a speech-language pathologist, audiologist, or speech, language, and hearing scientist.

Grounded in the latest scientific theories and research, CSD students learn to assess and treat persons with communication disorders — from infants to the elderly. In labs students have access to state-of-the-art equipment and analysis procedures as they study sound, speech, language, and hearing. Speech-language pathologists and audiologists make a positive contribution to people's lives. With the changing makeup of our population comes the need for speech-language-hearing professionals who are skilled in working in a complex and diverse society. For people with the proper education and flexibility, employment prospects are excellent. Opportunities and challenges await you!

#### Contact Information

##### Department Office

Academic Instructional Center 394  
360-650-3885

##### Transfer Advisor

Rieko Darling  
Academic Instructional  
Center 372  
360-650-3143  
Rieko.Darling@wwu.edu

##### Undergraduate Advisor

Eva Baharav  
Academic Instructional  
Center 378  
360-650-3157  
Eva.Bahara@wwu.edu

##### Undergraduate Advisor

Rieko Darling  
Academic Instructional  
Center 372  
360-650-3143  
Rieko.Darling@wwu.edu

##### Undergraduate Advisor

Kimberly Peters  
Academic Instructional  
Center 386  
360-650-3206  
Kimberly.Peters@wwu.edu

##### Undergraduate Advisor

Michael Fraas  
Academic Instructional  
Center 374  
360-650-7536  
Michael.Fraas@wwu.edu

#### Sample Careers

Speech-Language Pathologist | Speech-Language Scientist | Government/Industry Consultant | Audiologist | Hearing Scientist | Clinic Administrator

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

**Admissions:** To declare the major, students must have completed the following requirements:

- Completed at least 75 credits
- Successfully completed or be currently enrolled in CSD 251
- Achieved a Western GPA (based on at least 12 credits) of 2.7 or higher (A grade of at least B- (2.7) in each of the core courses (CSD 251, 352, 354, and 356) may substitute for the overall 2.7 GPA)

**Application deadlines:** Students must begin the lock-step major in the fall quarter (usually the junior year) in order to complete the series of required courses within two years.

**Advising Tips:** Enroll in CSD 251 to learn more about this major. Students must complete at least one course in Biological Sciences, Physical Sciences, and Mathematics during undergraduate study to meet certification requirements. Contact a CSD undergraduate advisor with questions.

### **Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- CSD 251 - Introduction to Communication Disorders
- CSD 352 - Anatomy and Physiology of Speech Mechanisms
- CSD 353 - Speech Science
- CSD 354 - Speech and Language Development in Children
- CSD 356 - Phonetics
- CSD 361 - Language Disorders, Birth to Five
- CSD 371 - Hearing Science
- CSD 372 - Hearing Disorders
- CSD 373 - Introduction to Phonology
- CSD 450 - Neuroanatomy for Speech Pathology and Audiology
- CSD 451 - Language Disorders II
- CSD 457 - Clinical Processes
- CSD 458 - Application of Clinical Processes to CSD
- CSD 459 - Lab: Beginning Clinical Practice in Speech-Language Therapy
- CSD 462 - Audiometric Testing
- CSD 463 - Aural Rehabilitation
- CSD 486 - Infants and Children With Hearing Loss
- CSD 488 - Hearing Loss in Adulthood
- LIBR 403 - Research Tutorial
- Total of 2 credits of either:
  - CSD 301 - Writing Lab
  - CSD 401 - Writing Lab
- Electives under departmental advisement
- Required minor of 24 credit or more.

## Master of Arts

### Audiology-Aural Rehabilitation, Non-Thesis, MA (In Moratorium)

*College of Humanities and Social Sciences*

**Notice:** The Department of Communication Sciences and Disorders at Western Washington University admitted its last audiology master's degree students in fall 2004. The department placed a moratorium on admission until further notice. Please contact the department for more information.

This program is not currently accepting new students. For further information contact the Graduate School, Western Washington University, 516 High St., Bellingham, WA 98225-9037, 360-650-3170, [gradschool@wwu.edu](mailto:gradschool@wwu.edu).

### Audiology-Aural Rehabilitation, Thesis, MA (In Moratorium)

*College of Humanities and Social Sciences*

**Notice:** The Department of Communication Sciences and Disorders at Western Washington University admitted its last audiology master's degree students in fall 2004. The department placed a moratorium on admission until further notice. Please contact the department for more information.

This program is not currently accepting new students. For further information contact the Graduate School, Western Washington University, 516 High St., Bellingham, WA 98225-9037, 360-650-3170, [gradschool@wwu.edu](mailto:gradschool@wwu.edu).

### Speech-Language Pathology, Non-Thesis, MA

*College of Humanities and Social Sciences*

#### Graduate Faculty

**Baharav, Eva**, PhD, speech-language pathology, child and adolescent language, autism, typical and disordered language across the life span, school age learning disorders, telepractice.

**Darling, Rieko M.**, PhD, audiology, amplification, geriatrics, central auditory processing disorders, aural rehabilitation.

**Fraas, Michael R.**, PhD, speech-language pathology, adult neurogenic disorders, cognitive disorders, dysphagia

**Mathers-Schmidt, Barbara**, PhD, fluency disorders, neuromotor speech disorders, research methodology, speech science.

**Peters, Kimberly A.**, PhD, audiology, pediatric audiology, auditory physiology, aural (re)habilitation, cochlear implants.

Graduate Program Coordinator: Karen-Margrethe Bruun, AI 380, 360-650-3197

#### Goals

The objectives of the program in Speech-Language Pathology are to prepare competent entry-level professionals in speech-language pathology and to prepare students for advanced study at the PhD level. The program includes an internship taken after other academic and clinical requirements have been completed. Speech-language pathology is a discipline which has developed out of a concern for people with communication disorders. Preparation leading to a degree in communication sciences and disorders includes a wide range of course work and a variety of clinical practicum opportunities working with the infant through geriatric populations.

## COMMUNICATION SCIENCES AND DISORDERS

Students who intend to seek employment in this profession, whether in a public school, clinic, rehabilitation center or hospital setting, are advised that certification/licensure at the state and/or national levels is required. Out-of-state students should recognize that other requirements may exist for employment in different geographic locations.

### **Prerequisites**

Students must have completed an undergraduate major in Communication Sciences and Disorders (CSD) or an equivalent professional core curriculum. The BA or BS in Communication Sciences and Disorders (Speech Pathology and Audiology) must have been completed within the past five years in order to be considered as an applicant for the graduate program in CSD. Grade point average requirements are consistent with those of the Graduate School. Students must have completed the Graduate Record Exam, General Test or REVISED General Test beginning August 2011.

Students who are not native speakers of English must demonstrate competence in written and spoken English. This can be done by submitting a satisfactory score on the international TOEFL, taken within one year of the date of application. A minimum composite score of 600 is required for the paper-based test; the scaled score for the computer-based test is 250; the Internet-based minimum score is 100. The TOEFL scores must be on file in the Graduate School prior to receipt of the application for graduate study.

### **ASHA Standards**

**IV-A:** The applicant must demonstrate knowledge of the principles of biological sciences, physical sciences, statistics, and the social/behavioral sciences.

**Implementation:** The applicant must have transcript credit (which could include course work, advanced placement, CLEP, or examination of equivalency) for each of the following areas: biological sciences, physical sciences, social/behavioral sciences, and statistics. Appropriate course work may include human anatomy and physiology, neuroanatomy and neurophysiology, genetics, physics, inorganic and organic chemistry, psychology, sociology, and anthropology. The intent of this standard is to require students to have a broad liberal arts and science background. Courses in biological and physical sciences specifically related to communication sciences and disorders may not be applied for certification purposes in this category. In addition to transcript credit, applicants may be required by their graduate program to provide further evidence of meeting this requirement.

The graduate coordinator will review the student's transcript during the first quarter of graduate work and if any of the above course work needs to be completed, the student will be advised to do so, as an overload, before graduation.

### **Application Information**

**Notice:** The Department of Communication Sciences and Disorders at Western Washington University admitted its last audiology master's degree students in fall 2004. The department placed a moratorium on admission until further notice. Please contact the department for more information.

The above does not affect the speech-language pathology graduate program. The department will continue to offer the ASHA-accredited master's degree program in speech-language pathology.

Enrollment is limited to 20 new graduate students per year.

**Admit Quarter:** Fall quarter only. The communication sciences and disorders program is a lock-step program which offers courses in sequence once a year beginning in the fall.

**Deadline:** Application deadline is February 1.

**TA Deadline:** Application deadline is February 1.

**Specific Test Requirements:** Graduate Record Exam, General Test or REVISED General Test beginning August 2011. (No test scores are required if an applicant holds an advanced degree — MA, MS, PhD.)

**Supporting Materials:**

- Application with \$60 fee (subject to change)
- Three recent letters of reference
- One official transcript from every school attended (no more than two years old)
- One-page statement of purpose
- One-page résumé

Program Requirements (81 credits)

- CSD 502 - Research Methods in Communication Sciences and Disorders
- CSD 510 - Organic Disorders
- CSD 515 - Seminar: Phonology
- CSD 540 - Essential Audiology for Speech Language Pathologists
- CSD 541 - Professional Issues in Speech-Language Pathology
- CSD 542 - Adult and Pediatric Dysphagia
- CSD 546 - Strategies for Assessment in CSD
- CSD 549 - Clinical Practicum
- CSD 550 - Voice Disorders and Therapy
- CSD 552 - Assessment Practicum in Speech-Language Pathology
- CSD 553 - Seminar: Preschool Language Development and Disorders
- CSD 554 - Stuttering
- CSD 555 - Seminar: Language Disorders in the School Age Child
- CSD 556 - Aphasia
- CSD 558 - Graduate Clinical Practice in Speech-Language Pathology (students must take for a total of 6 credits)
- CSD 560 - Speech-Language Pathology Practicum
- CSD 564 - Advanced Clinical Practice in Aural Rehabilitation
- CSD 575 - Counseling in Communication Disorders
- CSD 576 - Cognitive Communication Disorders
- CSD 585 - Neuromotor Speech Disorders
- CSD 586 - Diagnosis and Treatment of Adult Language Neurogenic Disorders
- CSD 588 - Seminar in Augmentative and Alternative Communication
- CSD 589 - Library Research for CSD
- CSD 597D - Alaryngeal Speech
- CSD 599 - Intern Speech/Lang Path/Aud \*\*
  - Select one of the following courses:
    - CSD 580 - Communication Disorders in the Public Schools #
    - CSD 582 - Medical Speech Pathology
  - Non-Thesis:
    - CSD 691 - Non-Thesis Option (3 credits) or Comprehensive exam
  - Electives:
    - CSD 559 - Speech-Language Pathology Practicum
    - CSD 592 - Seminar in Autism
    - CSD 598 - Internship in Speech-Language Pathology or Audiology \*\*

#Required for students intending to apply for Washington state CSD certificate.



## COMMUNICATION SCIENCES AND DISORDERS

\*\*Although the internship courses (598; 599) are 1-4 and 8 credits each, respectively, only a total of 6 credits can apply toward the MA degree.

### Additional Information

#### ***Clinical Competence***

In addition to meeting academic requirements, students specializing in speech-language pathology must demonstrate satisfactory competence in diagnostic and clinical practica. Refer to course description for additional information. No student in CSD may participate as a primary clinician in the clinic or an internship until cleared by the Washington State Office of Superintendent of Public Instruction and the Federal Bureau of Investigation background check. Clearance is valid for specified time frames. Procedure and fee information are provided to students upon acceptance into the graduate program. At times, the requirements for the completion of clinical practicum courses may fall outside the regular University calendar. Contact the department for further details.

Students are permitted to retake a clinical practicum only once. If a satisfactory grade is not achieved in the retake, students will not be permitted to continue in the practicum courses.

Not everyone is suited to work with clients in the clinical fields of speech-language pathology and audiology even though the student may maintain a satisfactory academic record. The faculty and staff of the Department of Communication Sciences and Disorders thus reserve the right to counsel students with this in mind, and to recommend a change of academic focus for the student who appears to have personality traits that would prevent the student from being successful in the discipline.

#### ***Internship***

An internship is required for all CSD students. This experience provides an opportunity for each student to refine and expand basic clinical skills by participating in a supervised, full-time work experience in a professional setting. The terminal objective of this training phase is to facilitate each clinician's transition from student in training to competent entry-level professional. As such, the internship is taken after other academic and clinical requirements have been completed with the exception of the research project. In addition to the required full-time internship (CSD 599), students also may choose to complete one or more part-time internships (CSD 598). Both the full-time and part-time placements require assignment to clinical settings off campus (e.g., schools, hospitals, private clinics, et cetera).

Due to the limited number of clinical credits that may be applied toward the graduate degree, students may use only 3 of the 8 CSD 599 credits toward the MA. An additional 3 credits of CSD 598 also may be applied toward the MA. Please see the graduate advisor or internship coordinator for further information.

#### ***Comprehensive Examination and Thesis/Non-Thesis Oral Defense***

The student will have a choice of writing a comprehensive exam or completing either a thesis or non-thesis research project and paper. The five-hour written comprehensive exam covers the student's area(s) of specialization and graduate program up to the time of the exam. A minimum of 50 graduate credits must be completed before the comprehensive exams can be taken.

Should the student choose to complete a thesis or a non-thesis research project and paper, this will be followed by an oral exam based on the student's topic. For details regarding the comprehensive exam and oral defense, the student should consult the graduate coordinator. Any recent policy/procedure changes or exceptions will be listed in the current CSD Graduate Guide.

#### ***Accreditation***

The graduate programs in speech-language pathology and audiology at Western Washington University are accredited by the Council of Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language Hearing Association and by the National Council for the Accreditation of Teacher Education.

**Professional Certification Requirements**

The American Speech-Language-Hearing Association (ASHA) 2005 requirements for Certification of Clinical Competence in Speech-Language Pathology stipulate the completion of 400 clock hours of practicum. Of these hours, at least 375 must be direct patient contact, at least 325 of which must be obtained at the graduate level. The requirement is met by taking an appropriate number of practicum credits (see application information above). Consult the department about specific requirements regarding clinical experience in the area in which the certificate is sought. The student must have a minimum of nine hours of classwork in the minor area of study (speech-language pathology or audiology). Consult the ASHA Membership and Certification Handbook for details.

**Speech-Language Pathology, Thesis, MA**

*College of Humanities and Social Sciences*

**Graduate Faculty**

**Baharav, Eva**, PhD, speech-language pathology, child and adolescent language, autism, typical and disordered language across the life span, school age language learning disorders, telepractice.

**Darling, Rieko M.**, PhD, audiology, amplification, geriatrics, central auditory processing disorders, aural rehabilitation.

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**Mathers-Schmidt, Barbara**, PhD, fluency disorders, neuromotor speech disorders, research methodology, speech science.

**Peters, Kimberly A.**, PhD, audiology, pediatric audiology, auditory physiology, aural (re)habilitation, cochlear implants.

Graduate Program Coordinator: Karen-Margrethe Bruun, AI 380, 360-650-3197

**Goals**

The objectives of the program in Speech-Language Pathology are to prepare competent entry-level professionals in speech-language pathology and to prepare students for advanced study at the PhD level. The program includes an internship taken after other academic and clinical requirements have been completed. Speech-language pathology is a discipline which has developed out of a concern for people with communication disorders. Preparation leading to a degree in communication sciences and disorders includes a wide range of course work and a variety of clinical practicum opportunities working with the infant through geriatric populations.

Students who intend to seek employment in this profession, whether in a public school, clinic, rehabilitation center or hospital setting, are advised that certification/licensure at the state and/or national levels is required. Out-of-state students should recognize that other requirements may exist for employment in different geographic locations.

**Prerequisites**

Students must have completed an undergraduate major in Communication Sciences and Disorders (CSD) or an equivalent professional core curriculum. The BA or BS in Communication Sciences and Disorders (Speech Pathology and Audiology) must have been completed within the past five years in order to be considered as an applicant for the graduate program in CSD. Grade point average requirements are consistent with those of the Graduate School. Students must have completed the Graduate Record Exam, General Test or REVISED General Test beginning August 2011.

Students who are not native speakers of English must demonstrate competence in written and spoken English. This can be done by submitting a satisfactory score on the international TOEFL, taken within one year of the date of application. A minimum composite score of 600 is required for the paper-based test; the scaled score

## COMMUNICATION SCIENCES AND DISORDERS

for the computer-based test is 250; the Internet-based minimum score is 100. The TOEFL scores must be on file in the Graduate School prior to receipt of the application for graduate study.

### **ASHA Standards**

**IV-A:** The applicant must demonstrate knowledge of the principles of biological sciences, physical sciences, statistics, and the social/behavioral sciences.

**Implementation:** The applicant must have transcript credit (which could include course work, advanced placement, CLEP, or examination of equivalency) for each of the following areas: biological sciences, physical sciences, social/behavioral sciences, and statistics. Appropriate course work may include human anatomy and physiology, neuroanatomy and neurophysiology, genetics, physics, inorganic and organic chemistry, psychology, sociology, and anthropology. The intent of this standard is to require students to have a broad liberal arts and science background. Courses in biological and physical sciences specifically related to communication sciences and disorders may not be applied for certification purposes in this category. In addition to transcript credit, applicants may be required by their graduate program to provide further evidence of meeting this requirement.

The graduate coordinator will review the student's transcript during the first quarter of graduate work and if any of the above course work needs to be completed, the student will be advised to do so, as an overload, before graduation.

### **Application Information**

**Notice:** The Department of Communication Sciences and Disorders at Western Washington University admitted its last audiology master's degree students in fall 2004. The department placed a moratorium on admission until further notice. Please contact the department for more information.

The above does not affect the speech-language pathology graduate program. The department will continue to offer the ASHA-accredited master's degree program in speech-language pathology.

Enrollment is limited to 20 new graduate students per year.

**Admit Quarter:** Fall quarter only. The communication sciences and disorders program is a lock-step program which offers courses in sequence once a year beginning in the fall.

**Deadline:** Application deadline is February 1.

**TA Deadline:** Application deadline is February 1.

**Specific Test Requirements:** Graduate Record Exam, General Test or REVISED General Test beginning August 2011. (No test scores are required if an applicant holds an advanced degree — MA, MS, PhD.)

### **Supporting Materials:**

- Application with \$60 fee (subject to change)
- Three recent letters of reference
- One official transcript from every school attended (no more than two years old)
- One-page statement of purpose
- One-page résumé

### **Program Requirements (84 credits)**

- CSD 502 - Research Methods in Communication Sciences and Disorders
- CSD 510 - Organic Disorders
- CSD 515 - Seminar: Phonology
- CSD 540 - Essential Audiology for Speech Language Pathologists
- CSD 546 - Strategies for Assessment in CSD
- CSD 549 - Clinical Practicum
- CSD 550 - Voice Disorders and Therapy

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- CSD 552 - Assessment Practicum in Speech-Language Pathology
  - CSD 553 - Seminar: Preschool Language Development and Disorders
  - CSD 554 - Stuttering
  - CSD 555 - Seminar: Language Disorders in the School Age Child
  - CSD 556 - Aphasia
  - CSD 558 - Graduate Clinical Practice in Speech-Language Pathology (students must take for a total of 6 credits)
  - CSD 560 - Speech-Language Pathology Practicum
  - CSD 564 - Advanced Clinical Practice in Aural Rehabilitation
  - CSD 575 - Counseling in Communication Disorders
  - CSD 576 - Cognitive Communication Disorders
  - CSD 585 - Neuromotor Speech Disorders
  - CSD 586 - Diagnosis and Treatment of Adult Language Neurogenic Disorders
  - CSD 588 - Seminar in Augmentative and Alternative Communication
  - CSD 589 - Library Research for CSD
    - CSD 589D - Alaryngeal Speech
  - CSD 599 - Intern Speech/Lang Path/Aud \*\* (program counts 3 credits)
    - Select one of the following courses:
      - CSD 580 - Communication Disorders in the Public Schools #
      - CSD 582 - Medical Speech Pathology
    - Thesis:
      - CSD 690 - Thesis (6 credits)
    - Electives
      - CSD 559 - Speech-Language Pathology Practicum
      - CSD 592 - Seminar in Autism
      - CSD 598 - Internship in Speech-Language Pathology or Audiology \*\*  
and other 400- and 500-level courses selected under departmental advisement
- #Required for students intending to apply for Washington state CSD certificate.  
\*\*Although the internship courses (598; 599) are 1-4 and 8 credits each, respectively, only a total of 6 credits can apply toward the MA degree.

### Additional Information

#### ***Clinical Competence***

In addition to meeting academic requirements, students specializing in speech-language pathology must demonstrate satisfactory competence in diagnostic and clinical practica. Refer to course description for additional information. No student in CSD may participate as a primary clinician in the clinic or an internship until cleared by the Washington State Office of Superintendent of Public Instruction and the Federal Bureau of Investigation background check. Clearance is valid for specified time frames. Procedure and fee information are provided to students upon acceptance into the graduate program. At times, the requirements for the completion of clinical practicum courses may fall outside the regular University calendar. Contact the department for further details.

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mind, and to recommend a change of academic focus for the student who appears to have personality traits that would prevent the student from being successful in the discipline.

### ***Internship***

An internship is required for all CSD students. This experience provides an opportunity for each student to refine and expand basic clinical skills by participating in a supervised, full-time work experience in a professional setting. The terminal objective of this training phase is to facilitate each clinician's transition from student in training to competent entry-level professional. As such, the internship is taken after other academic and clinical requirements have been completed with the exception of the research project. In addition to the required full-time internship (CSD 599), students also may choose to complete one or more part-time internships (CSD 598). Both the full-time and part-time placements require assignment to clinical settings off campus (e.g., schools, hospitals, private clinics, et cetera).

Due to the limited number of clinical credits that may be applied toward the graduate degree, students may use only 3 of the 8 CSD 599 credits toward the MA. An additional 3 credits of CSD 598 also may be applied toward the MA. Please see the graduate advisor or internship coordinator for further information.

### ***Comprehensive Examination and Thesis/Non-Thesis Oral Defense***

The student will have a choice of writing a comprehensive exam or completing either a thesis or non-thesis research project and paper. The five-hour written comprehensive exam covers the student's area(s) of specialization and graduate program up to the time of the exam. A minimum of 50 graduate credits must be completed before the comprehensive exams can be taken.

Should the student choose to complete a thesis or a non-thesis research project and paper, this will be followed by an oral exam based on the student's topic. For details regarding the comprehensive exam and oral defense, the student should consult the graduate coordinator. Any recent policy/procedure changes or exceptions will be listed in the current CSD Graduate Guide.

### ***Accreditation***

The graduate programs in speech-language pathology and audiology at Western Washington University are accredited by the Council of Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language Hearing Association and by the National Council for the Accreditation of Teacher Education.

### ***Professional Certification Requirements***

The American Speech-Language-Hearing Association (ASHA) 2005 requirements for Certification of Clinical Competence in Speech-Language Pathology stipulate the completion of 400 clock hours of practicum. Of these hours, at least 375 must be direct patient contact, at least 325 of which must be obtained at the graduate level. The requirement is met by taking an appropriate number of practicum credits (see application information above). Consult the department about specific requirements regarding clinical experience in the area in which the certificate is sought. The student must have a minimum of nine hours of classwork in the minor area of study (speech-language pathology or audiology). Consult the ASHA Membership and Certification Handbook for details.

## **Minor**

### **Audiology Minor (In Moratorium)**

Department of Communication Sciences & Disorders, College of Humanities and Social Sciences

### **24 Credits**

## Introduction/What is the Study of Audiology?

### Why Consider an Audiology Minor?

#### Contact Information

##### Department Office

Academic Instructional Center 394  
360-650-3885

#### Sample Careers

#### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Declaration of Major

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- CSD 381 - Physiological and Psychological Bases of Hearing
  - CSD 464 - Clinical Practice in Aural Rehabilitation
  - CSD 468 - Clinical Practicum in Audiology
  - CSD 482 - Clinical Hearing Technology
  - CSD 483 - Amplification and Sensory Systems
  - CSD 485 - Children With Hearing Loss in School
  - CSD 487 - Fundamentals of Hearing Conservation
  - Electives from:
    - CSD 400 - Independent Study
    - CSD 491 - Senior Research Project
    - CSD 499 - Field Placement/Observation in Speech-Language Pathology or Audiology
- Meeting with CSD advisor required before registering for audiology minor.

## Communication Sciences and Disorders Minor

Department of Communication Sciences and Disorders, College of Humanities and Social Sciences

### 25 credits minimum

## Introduction/What is the Study of Communication Sciences and Disorders?

### Why Consider a Communication Sciences and Disorders Minor?

#### Contact Information

##### Department Office

Academic Instructional Center 394  
360-650-3885

## Sample Careers

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

#### **Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- CSD 251 - Introduction to Communication Disorders
- CSD 352 - Anatomy and Physiology of Speech Mechanisms
- CSD 354 - Speech and Language Development in Children
- CSD 356 - Phonetics
- CSD 371 - Hearing Science
- Electives from:
  - CSD 253 - Speech and Hearing Sciences for the Liberal Arts
  - CSD 353 - Speech Science
  - CSD 361 - Language Disorders, Birth to Five
  - CSD 372 - Hearing Disorders
  - CSD 373 - Introduction to Phonology
  - CSD 451 - Language Disorders II
  - CSD 463 - Aural Rehabilitation

## **WWU (Non-Degree)**

### **Communication Sciences and Disorders Post-Baccalaureate Preparation Program**

Communication Sciences and Disorders, College of Humanities and Social Sciences

#### **52 - 55 Credits**

#### **Introduction/What is the Study of Communication Sciences and Disorders?**

The Department of Communication Sciences and Disorders offers a post-baccalaureate program for students interested in pursuing a graduate degree in Speech-Language Pathology or Audiology. Such students currently hold a degree outside the discipline of speech, language, and hearing science. The program is a 4-quarter lockstep program beginning fall quarter. Courses are taken sequentially through the year, including summer quarter.

The program is administered by the Extended Education division of Western Washington University. It is important to note that acceptance into this post-baccalaureate program does not guarantee admission to the graduate program. Completion of the Western Washington University post-baccalaureate program qualifies students for consideration for admission to our master's program in Speech-Language Pathology or similar graduate programs in other universities.

**Why Consider a Post-Baccalaureate in Communication Sciences and Disorders?**

## Contact Information

**Department Office**

Academic Instructional Center 394  
360-650-3885

**Advisor**

Karen-Margrethe Bruun  
360-650-3197  
Karen-Margethe.Brunn@wwu.edu

## Sample Careers

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

If you are interested in applying to the post-baccalaureate program, please contact Jenny Hebert, 360-650-7780, for an application packet.

**Admissions and Application Requirements:**

- An undergraduate degree in a major other than speech pathology/audiology
- A completed application form  
[Click here for Post-Baccalaureate application requirements \(pdf\)](#)
- Resume  
[Click here for résumé guidelines \(pdf\)](#)
- A copy of a sealed official transcript from each college or university attended
- Three letters of recommendation
- A one-page statement of purpose
- A non-refundable \$55 application fee made out to WWU
- Review and recommendation by the CSD faculty

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- CSD 251 - Introduction to Communication Disorders
- CSD 352 - Anatomy and Physiology of Speech Mechanisms
- CSD 353 - Speech Science
- CSD 354 - Speech and Language Development in Children
- CSD 356 - Phonetics
- CSD 361 - Language Disorders, Birth to Five
- CSD 371 - Hearing Science
- CSD 372 - Hearing Disorders
- CSD 373 - Introduction to Phonology
- CSD 450 - Neuroanatomy for Speech Pathology and Audiology
- CSD 451 - Language Disorders II
- CSD 460 - Assess & Intervention in CSD
- CSD 462 - Audiometric Testing
- CSD 463 - Aural Rehabilitation



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- CSD 486 - Infants and Children With Hearing Loss
- LIBR 403 - Research Tutorial

## Communication Sciences and Disorders Courses

### **CSD 251 - Introduction to Communication Disorders**

An introduction to the disciplines of speech-language pathology and audiology; survey of speech, language and hearing processes and disorders.

Credits: 3

### **CSD 253 - Speech and Hearing Sciences for the Liberal Arts**

Basic concepts of speech production, speech acoustics, hearing and speech perception. Includes lab.

Credits: 4

GUR Attributes: LSCI

### **CSD 301 - Writing Lab**

Instruction and practice in writing; includes opportunities for multi-drafting, revision, and reflection. Repeatable up to 2 credits.

**Prerequisites & Notes:** ENG 101.

Credits: 1

### **CSD 352 - Anatomy and Physiology of Speech Mechanisms**

Structure and function of organs concerned with audition, respiration, phonation, resonance, articulation.

**Prerequisites & Notes:** Junior or senior status, or permission of instructor.

Credits: 5

### **CSD 353 - Speech Science**

Acoustic and articulatory characteristics of the speech signal and their relation to speech production and perception. Lab required.

**Prerequisites & Notes:** junior standing, CSD 352, CSD 356, CSD 371

Credits: 5

### **CSD 354 - Speech and Language Development in Children**

Typical speech and language acquisition; its impact on the developing child; origins and growth of symbolic processes, developmental norms; factors influencing learning of language and speech.

**Prerequisites & Notes:** Junior or senior status, or permission of instructor.

Credits: 3

### **CSD 356 - Phonetics**

Training in recognition and production of sounds of spoken English through use of the International Phonetic Alphabet. Lab required.

**Prerequisites & Notes:** Junior or senior status, or permission of instructor.

Credits: 3

### **CSD 361 - Language Disorders, Birth to Five**

Etiologies of language learning disabilities in children from birth to five years; diagnosis and treatment procedures.

**Prerequisites & Notes:** CSD 354

Credits: 4

### **CSD 371 - Hearing Science**

Introduction to the nature of sound and its measurement. The structure and function of the auditory mechanism.

**Prerequisites & Notes:** CSD 352

Credits: 3

### **CSD 372 - Hearing Disorders**

The nature, cause and treatment of hearing impairment.

**Prerequisites & Notes:** CSD 352

Credits: 3

### **CSD 373 - Introduction to Phonology**

Phonological development, symptomatology, etiology and therapy for articulation disorders.

**Prerequisites & Notes:** CSD 251, CSD 352, CSD 356  
Credits: 3

**CSD 381 - Physiological and Psychological Bases of Hearing**

The study of the structure and function of the auditory system. Analysis of significant theories in speech acoustics and speech perception. Examination of the effects of hearing impairment on speech perception.

**Prerequisites & Notes:** CSD 353, CSD 371 or instructor permission.  
Credits: 3

**CSD 401 - Writing Lab**

Instruction and practice in writing; includes opportunities for multi-drafting, revision, and reflection. Repeatable up to 2 credits.

**Prerequisites & Notes:** ENG 101.  
Credits: 1

**CSD 450 - Neuroanatomy for Speech Pathology and Audiology**

Normal and abnormal structures of the human nervous system as they pertain to speech, language and hearing. Particular emphasis on sensory and motor pathways, localization and lateralization.

**Prerequisites & Notes:** CSD 352 or equivalent; senior/graduate standing.  
Credits: 4

**CSD 451 - Language Disorders II**

Diagnosis and treatment procedures for school-age children with language-learning impairments.

**Prerequisites & Notes:** CSD 354, CSD 361  
Credits: 3

**CSD 457 - Clinical Processes**

Current principles, methods and materials used in the assessment and treatment of a variety of communication disorders. Directed observation. Writing proficiency course.

**Prerequisites & Notes:** CSD 354, CSD 361, CSD 373, CSD 451  
Credits: 5

**CSD 458 - Application of Clinical Processes to CSD**

Application of the clinical processes to service delivery, documentation, administrative procedures, and professional writing.

**Prerequisites & Notes:** CSD 457, permission of instructor.  
Credits: 3

**CSD 459 - Lab: Beginning Clinical Practice in Speech-Language Therapy**

Assistant clinician experience. Lab required. S/U grading.

**Prerequisites & Notes:** CSD 458; minimum 25 hours documented speech-language pathology, audiology and/or aural rehabilitation observation; CSD 458, CSD 459 concurrent with instructor permission.  
Credits: 1

Grade Mode: S/U

**CSD 460 - Assess & Intervention in CSD**

Current principles, methods, and application of research-based theories to a dynamic clinical process which includes identification, prevention, assessment, and intervention for communication disorders. Lab required.

**Prerequisites & Notes:** CSD 354, CSD 361, CSD 373, CSD 451  
Credits: 4

**CSD 462 - Audiometric Testing**

Introduction to the theory and application of pure tone, immittance and speech audiometry to the assessment of hearing function; implications for rehabilitation.

**Prerequisites & Notes:** CSD 371  
Credits: 4

**CSD 463 - Aural Rehabilitation**

Listening training, speech reading, orientation to amplification devices, and coping skills for the aurally handicapped.

# COMMUNICATION SCIENCES AND DISORDERS

**Prerequisites & Notes:** CSD 371  
Credits: 4

## **CSD 464 - Clinical Practice in Aural Rehabilitation**

Supervised clinical practice in the (re)habilitation of the deaf and hard of hearing. Repeatable to a maximum of 6 credits. S/U grading.

**Prerequisites & Notes:** CSD major with minor in audiology or instructor permission; CSD 458, CSD 459, CSD 463; minimum 25 hours of speech-language pathology/audiology/aural rehabilitation observation required.  
Credits: 2  
Grade Mode: S/U

## **CSD 466 - Medical Audiology**

Pathologies of the hearing mechanism and their auditory manifestations. Discussion with physicians regarding diagnosis, referrals and report writing.

**Prerequisites & Notes:** CSD 371, CSD 462  
Credits: 3

## **CSD 468 - Clinical Practicum in Audiology**

Supervised clinical practice in audiological evaluation. Repeatable to a maximum of 6 cr. S/U grading.

**Prerequisites & Notes:** CSD major with a minor in audiology or instructor permission ;CSD 371, CSD 462; 25 hours of documented speech-language pathology/audiology/aural rehabilitation observations.  
Credits: 2  
Grade Mode: S/U

## **CSD 482 - Clinical Hearing Technology**

Study of history, development, and use of emerging technologies and special clinical instrumentation for the evaluation of hearing, auditory function, and balance.

**Prerequisites & Notes:** satisfactory completion of CSD 462 or instructor permission  
Credits: 3

## **CSD 483 - Amplification and Sensory Systems**

Study of history, development, and use of amplification and other sensory devices for

treatment of hearing loss and auditory processing deficits.

**Prerequisites & Notes:** satisfactory completion of CSD 462 or instructor permission  
Credits: 3

## **CSD 485 - Children With Hearing Loss in School**

This course will introduce the student to the needs of the hearing impaired child in the public school environment, the public school laws affecting the placement of such children, and the types of remediation that occur in this setting.

**Prerequisites & Notes:** CSD 352  
Credits: 3

## **CSD 486 - Infants and Children With Hearing Loss**

Developmental milestones of auditory functions, implications of childhood hearing loss, and observation of pediatric assessment utilizing current evaluation techniques.

**Prerequisites & Notes:** CSD 371, CSD 462, or CSD 371 and permission of the instructor.  
Credits: 3

## **CSD 487 - Fundamentals of Hearing Conservation**

Noise as a public health hazard. The effect of noise on hearing. Noise abatement, control and protection. Federal and state noise regulations and compensation for noise induced hearing loss (NIHL).

**Prerequisites & Notes:** CSD 371, CSD 462.  
Credits: 3

## **CSD 488 - Hearing Loss in Adulthood**

Study of the nature and implications of hearing loss across the adult age spectrum. Anatomic and physiologic influences of aging on the auditory system and how these changes influence auditory function and communication will be highlighted.

**Prerequisites & Notes:** satisfactory completion of CSD 462 or instructor permission  
Credits: 3

**CSD 490 - Social, Political, Cultural Aspects of Communication Disorders**

Introduction to social, political, and cultural forces impacting communication and communication disorders. Overview of theories and research tools that guide our observations of these forces. Emphasis on becoming culturally competent in providing educational and health care services to diverse client population.

**Prerequisites & Notes:** CSD 251, CSD 353, CSD 354, CSD 361, CSD 373, and CSD 451  
Credits: 3

**CSD 491 - Senior Research Project**

Research-based writing or field project under direction of faculty advisor. Must be taken Fall, Winter and Spring quarters of senior year for 2 credits each quarter. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** satisfactory completion of CSD major courses or advisor permission  
Credits: 2

**CSD 499 - Field Placement/Observation in Speech-Language Pathology or Audiology**

Off-campus field experience in an approved setting designed to introduce students to management of communication disorders. Subject to availability of suitable site. Repeatable up to 6 credits. S/U grading.

**Prerequisites & Notes:** Completion of undergraduate major requirements and instructor permission.  
Credits: 1-6  
Grade Mode: S/U

**CSD 502 - Research Methods in Communication Sciences and Disorders**

Topics include research strategies and designs, measurement issues, evaluation criteria, treatment efficacy, and organization and analysis of data. Introduces students to group and single-subject research designs and qualitative research. Engages students in completing a research project.

Credits: 4

**CSD 503 - Professional Development in CSD**

This course provides conference-based opportunities for practicing professionals to engage in learning about current research and treatment strategies on a variety of special education issues, including communication disorders. The courses are intended for the professional development of the conference attendee. The WWU credits may not be used as elective credits in a graduate degree program.

**Prerequisites & Notes:** Entry level degree in professional area of specialization.  
Credits: 2  
Grade Mode: S/U

**CSD 510 - Organic Disorders**

A review of the etiologies and nature of cleft palate and cerebral palsy; related communication disorders; diagnostic and intervention approaches.

**Prerequisites & Notes:** CSD 352, CSD 450, CSD 459 or equivalent, or instructor permission.  
Credits: 3

**CSD 515 - Seminar: Phonology**

Current topics and issues on typical and disordered phonology, and the phonological basis of reading and writing, with a special emphasis on clinical implications of recent research findings.

**Prerequisites & Notes:** CSD 373 and graduate status.  
Credits: 4

**CSD 540 - Essential Audiology for Speech Language Pathologists**

Essential knowledge and skills required of speech-language pathologists in providing optimal clinical services to clients with hearing loss and auditory processing issues.

**Prerequisites & Notes:** CSD 462 and CSD 463, or permission of instructor.  
Credits: 3

**CSD 541 - Professional Issues in Speech-Language Pathology**

Current information regarding ethical and professional issues essential for Speech-Language Pathologist (SLP) practice in today's diverse and demanding work settings.

## COMMUNICATION SCIENCES AND DISORDERS

**Prerequisites & Notes:** Graduate status in CSD.  
Credits: 3

### **CSD 542 - Adult and Pediatric Dysphagia**

Pathophysiology and evaluation of swallowing disorders; diagnostic evaluation and management/rehabilitation in adults, infants, and children.

**Prerequisites & Notes:** CSD 352; CSD 450; CSD 546; CSD 585; or instructor permission  
Credits: 4

### **CSD 546 - Strategies for Assessment in CSD**

Discussion of the diagnostic processes including formal and informal assessment, report writing, and strategies for optimal assessment practices. S/U grading.

**Prerequisites & Notes:** Graduate status. CSD 549 or concurrent.  
Credits: 1  
Grade Mode: S/U

### **CSD 549 - Clinical Practicum**

Initial graduate experience in supervised clinical practicum.

**Prerequisites & Notes:** CSD Graduate status  
Credits: 2  
Grade Mode: S/U

### **CSD 550 - Voice Disorders and Therapy**

Pathological and psychological states affecting voice production. Functional psychogenic and organic problems of pitch, quality and loudness. Experience in diagnosis and evaluation of voice disorders. Developing techniques and learning methods for treatment and therapy. Lab required.

**Prerequisites & Notes:** CSD 351, CSD 352, CSD 450 or equivalent  
Credits: 4

### **CSD 552 - Assessment Practicum in Speech-Language Pathology**

This class is an on-campus practicum using specialized methods, tests and instruments used in the assessment and evaluation of a variety of communication disorders.

**Prerequisites & Notes:** CSD 558; and instructor permission.  
Credits: 2

### **CSD 553 - Seminar: Preschool Language Development and Disorders**

Current topics and issues on typical and disordered language in preschool children, as well as factors related to language development. Special emphasis on clinical implications of recent research findings.

**Prerequisites & Notes:** CSD 354, CSD 361, CSD 515  
Credits: 4

### **CSD 554 - Stuttering**

Analysis of current models and recent research on stuttering and cluttering disorders; chief rationale for therapy and evaluation of therapy procedures and results. Review and practice of clinical assessment and intervention.

Credits: 4

### **CSD 555 - Seminar: Language Disorders in the School Age Child**

Current topics and issues on typical and disordered language in school-age children, as well as alternate treatment approaches for older children. Special emphasis on clinical implications of recent research findings.

**Prerequisites & Notes:** CSD 451, CSD 553  
Credits: 4

### **CSD 556 - Aphasia**

Descriptions, classifications and theoretical issues related to multimodality language-impaired adults following neurogenic brain dysfunction. Some discussion of diagnostic methods.

**Prerequisites & Notes:** CSD 450 or equivalent  
Credits: 3

### **CSD 558 - Graduate Clinical Practice in Speech-Language Pathology**

Supervised clinical practicum. Must be completed with a grade of B- or better. Repeatable to a maximum of 9 cr.

**Prerequisites & Notes:** Satisfactory completion of CSD 549 and permission of instructor.  
Credits: 1-3

**CSD 559 - Speech-Language Pathology Practicum**

Must be completed with a grade of B- or better.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 2

**CSD 560 - Speech-Language Pathology Practicum**

Supervised clinical practicum. S/U grading. Offered summer only.

**Prerequisites & Notes:** CSD 549, CSD 558  
Credits: 2  
Grade Mode: S/U

**CSD 561 - Advanced Audiology I**

Study of basic auditory correlates and advanced diagnostic audiometric procedures.

**Prerequisites & Notes:** CSD 371, CSD 462; instructor permission  
Credits: 3

**CSD 562 - Advanced Audiology II**

Theory and application of advanced diagnostic audiometric procedures.

**Prerequisites & Notes:** CSD 561  
Credits: 3

**CSD 563 - Seminar: Aural Rehabilitation**

Issues related to the hearing-impaired population.

**Prerequisites & Notes:** CSD 463 or instructor permission  
Credits: 3

**CSD 564 - Advanced Clinical Practice in Aural Rehabilitation**

Supervised practice in rehabilitation of the hard of hearing. Must be completed with a grade of B or better. Repeatable to a maximum of 10 cr.

**Prerequisites & Notes:** CSD 458; CSD 459; CSD 463; permission of instructor, and a minimum of 25 hours of documented speech-language

pathology/ audiology and rehabilitation observation.  
Credits: 2

**CSD 565 - Psychoacoustics**

Application of standard psychophysical techniques and theory of signal detection to audiologic research.

**Prerequisites & Notes:** CSD 561 or instructor permission  
Credits: 3

**CSD 566 - Auditory Neurophysiology**

The ear as a transducer and analyzer; electrophysiological and mechanical properties of the ear.

**Prerequisites & Notes:** CSD 561; instructor permission  
Credits: 3

**CSD 567 - Seminar: Hearing Conservation**

Noise as a public health hazard; the effects of noise on hearing; noise abatement, control and protection; federal and state noise regulations and compensation.

**Prerequisites & Notes:** CSD 562  
Credits: 3

**CSD 568 - Advanced Clinical Practicum in Audiology**

To be taken in sequence; and a minimum of 25 hours of documented speech-language pathology/audiology and rehabilitation observations. Clinical practicum designed to advance skills in audiology. Must be completed with a grade of B or better. Repeatable to a maximum of 14 cr.

**Prerequisites & Notes:** CSD 371, CSD 462 or permission of instructor; to be taken in sequence; and a minimum of 25 hours of documented speech-language pathology/audiology and rehabilitation observations.  
Credits: 2

**CSD 569 - Advanced Clinical Practice in Aural Rehabilitation**

# COMMUNICATION SCIENCES AND DISORDERS

Supervised clinical practicum. S/U grading. Offered summer only. Repeatable to 4 credits.

**Prerequisites & Notes:** Satisfactory completion of CSD 458, CSD 459, CSD 463, and permission of instructor.

Credits: 2

Grade Mode: S/U

## **CSD 570 - Medical Audiology**

Pathologies of the hearing mechanism and their auditory manifestations. Discussion with physicians regarding diagnosis, referrals and report writing.

**Prerequisites & Notes:** CSD 371, CSD 462, CSD 561

Credits: 3

## **CSD 571 - Hearing Aids I**

History, development and description of hearing aids and other amplification devices. Research into the electro-acoustic characteristics of hearing aids.

**Prerequisites & Notes:** CSD 462 or permission of instructor.

Credits: 3

## **CSD 572 - Hearing Aids II**

Evaluation procedures and fitting techniques for dispensing hearing aids and other amplification devices. Auditory training and counseling techniques covered as well as special instrumentation.

**Prerequisites & Notes:** CSD 571

Credits: 3

## **CSD 573 - Seminar: Speech Acoustics**

In-depth study of the acoustic speech signal. Analysis of significant theories in speech production/acoustics. Application of relevant acoustic principles in the evaluation and remediation of communicative disabilities.

**Prerequisites & Notes:** CSD 353 or instructor permission

Credits: 3

## **CSD 574 - Seminar: Speech Perception**

Critical analysis of current issues in speech perception. Examination of the effects of

communication disabilities on speech perception.

**Prerequisites & Notes:** CSD 353, CSD 573 or instructor permission

Credits: 3

## **CSD 575 - Counseling in Communication Disorders**

Contemporary theories and techniques of counseling individuals with communication disorders and their families.

**Prerequisites & Notes:** Graduate status

Credits: 3

## **CSD 576 - Cognitive Communication Disorders**

Processes and theories of cognitive functions; assessment and management of cognitive disorders associated with acquired brain injury.

**Prerequisites & Notes:** CSD 450 and CSD 556; or instructor permission.

Credits: 4

## **CSD 577 - Pediatric Audiology**

Developmental milestones of auditory function, implications of childhood hearing loss and supervised testing of pediatric patients utilizing basic and advanced testing techniques.

**Prerequisites & Notes:** CSD 371, CSD 462, CSD 568; instructor permission

Credits: 3

## **CSD 578 - Seminar: Electrophysiological Testing**

Current topics and issues in specialized areas of averaged electro-encephalic audiometry and otoacoustic emissions; research trends and problems. Lab required.

**Prerequisites & Notes:** CSD 561, CSD 568 or instructor permission

Credits: 3

## **CSD 579 - Aging and the Ear**

Anatomical and physiological influences of aging on the auditory mechanism and how these changes influence overall auditory function and communication.

**Prerequisites & Notes:** CSD 561, CSD 562  
Credits: 3

**CSD 580 - Communication Disorders in the Public Schools**

Role of the professional in organizing and directing a speech-language therapy or audiology program in the public school setting. Required for public school certification.

**Prerequisites & Notes:** Second year graduate standing or instructor permission  
Credits: 3

**CSD 582 - Medical Speech Pathology**

Current topics and issues related to the practice of speech pathology in a medical/clinical setting.

**Prerequisites & Notes:** Second year graduate standing or instructor permission  
Credits: 2

**CSD 585 - Neuromotor Speech Disorders**

Current literature review and discussion of the nature of neurologically based speech disorders (dysarthrias and apraxia). Examination and practice of clinical intervention methods.

**Prerequisites & Notes:** CSD 450, CSD 556 or equivalent  
Credits: 4

**CSD 586 - Diagnosis and Treatment of Adult Language Neurogenic Disorders**

Differential diagnosis assessment tools and theories of diagnostic methods. Treatment approaches for adult neurogenic disorders.

**Prerequisites & Notes:** CSD 450, CSD 556 or equivalent  
Credits: 3

**CSD 588 - Seminar in Augmentative and Alternative Communication**

Focus on evaluation and intervention for children, adolescence and adults with moderate to severe congenital or acquired disorders in speech and language who require augmentative and alternative models for oral or written communication.

**Prerequisites & Notes:** CSD 552, CSD 553, CSD 555, CSD 558 or instructor permission  
Credits: 2

**CSD 589 - Library Research for CSD**

Instruction in finding, examining and evaluating scholarly database information. Ethical, social aspects of information, organization and techniques of research process. Use of the internet sources in obtaining and evaluating medical information. S/U grading.

Credits: 1  
Grade Mode: S/U

**CSD 592 - Seminar in Autism**

Readings and discussion of theoretical and applied issues relating to the identification, diagnosis and treatment of Autism Spectrum Disorders. Case studies are developed and presented using a variety of clinical forums.

**Prerequisites & Notes:** Graduate status or instructor approval.  
Credits: 3

**CSD 598 - Internship in Speech-Language Pathology or Audiology**

Supervised, part-time experience providing opportunities to develop and demonstrate clinical competence in an approved setting. Placement is dependent on a suitable site. S/U grading. Repeatable up to 8 credits.

**Prerequisites & Notes:** Second-year graduate status; completion of plan of study; instructor permission; B in last clinic and a minimum of 200 clinic hours; enroll in clinic the quarter prior to internship and have all administrative and clinical records current.  
Credits: 1-4  
Grade Mode: S/U

**CSD 599 - Intern Speech/Lang Path/Aud**

Supervised, full-time, off-campus experience providing opportunities to develop and demonstrate clinical competence in an approved setting. Placement is dependent on a suitable site. S/U grading. Repeatable up to 16 credits.



# COMMUNICATION SCIENCES AND DISORDERS

**Prerequisites & Notes:** Second-year graduate status; completion of plan of study; instructor permission; B in last clinic and minimum of 225 clinic hours, 25 observation enroll in clinic the quarter prior to internship and have all administrative/clinical records current.

Credits: 8

Grade Mode: S/U

## **CSD 690 - Thesis**

Credits: 1-9

## **CSD 691 - Non-Thesis Option**

Writing based on research or clinical projects. This report to be used to help satisfy the non-thesis requirement.

Credits: 3

# Communication Studies

## Introduction

We teach communication studies that nurture inclusive civil discourse, critical thinking, and cooperative solutions in a diverse global community. We offer opportunities to develop strong communication skills within a challenging liberal arts program.

Our major program prepares students to speak and write proficiently, think critically, apply communication concepts competently, work cooperatively in small groups, and reflect on ethical dimensions of their actions. We focus on interactive learning in a high quality communication studies curriculum. We assist planning so that students effectively manage time to graduation. We emphasize carefully guided, performance-based learning characterized by a low student-to-faculty ratio in the classroom. And we offer the opportunity to participate in a nationally recognized forensics program. Faculty and staff encourage a sense of community. We engage with students to support their wellbeing and success. Through the talents, intellectual curiosity, and versatility of our diverse faculty we have established a strong intercultural and global orientation. We provide General Education Requirement courses that are crucial to the university's undergraduate communication education, and our communication theory and applications courses also instruct other majors. We are committed to community partnerships for strong service-learning and internships, and we serve the citizens of Washington in progressive communication instruction.

### *Communication Studies*

The Department of Communication Studies offers a Bachelor of Arts in Communication Studies with courses in interpersonal and small group communication, organizational communication, mass communication, intercultural communication, communication technologies, research methods, ethics, rhetoric, persuasion, public speaking, and debate.

### *Communication Studies Education*

Education students may choose a communication major designed for the elementary level.

## Faculty

**MICHAEL KARLBERG** (1997) Chair and Professor. BA, University of California; MA, PhD, Simon Fraser University.

**JAMES FORTNEY** (2013) Assistant Professor. BA, Saint Louis University; MA, DePaul University; PhD, University of Colorado Boulder.

**EE LIN LEE** (2005) Associate Professor. BA, MA, Western Michigan University; PhD, University of New Mexico.

**HELEN MORGAN PARMETT** (2012) Assistant Professor. BA University of Vermont; MA, University of Pittsburgh; PhD, University of Minnesota.

**TARA PERRY** (2005) Associate Professor. BA, Western Washington University; MA, PhD, Washington State University.

**KAREN ROHRBAUCK STOUT** (2000) Professor. BA, University of Puget Sound; MA, University of Montana; PhD, University of Utah.

**RAE LYNN SCHWARTZ-DUPRE** (2006) Associate Professor. BA, University of Vermont; MA, Wake Forest University; PhD, University of Iowa.

**JIANGLONG WANG** (1989) Professor. BA, Fudan University; MA, PhD, Northwestern University.

**STEVEN G. WOODS** (2001) Associate Professor. BS, MA, Kansas State University; PhD, Florida State University.

### *Affiliated Faculty*

**CARMEN WERDER** (1984). BA, MA English, Western Washington University; PhD, English, University of British Columbia.

## Becoming a Communication Studies Major

Students wishing to declare a major in Communication Studies must complete the pre-requisites and then apply to become a major by submitting a portfolio to the department. Details regarding the pre-requisites and application process can be found on the Communication Studies, BA page.

### *Mid-Program Checkpoint*

A student seeking to complete a BA degree with a Communication Studies major within a four-year time span should plan to complete the following courses by the start of his/her junior year:

- Either (a) COMM 101 and LIBR 201, or (b) COMM 235
- COMM 220
- Two or more 200 or 300-level communication courses that are open to all undergraduates: JOUR 190 (Intro to Mass Media) will also count toward a COMM major and can be taken at this stage.
- Substantial progress in General University Requirements (GURs), including courses with substantial writing components (Two collegiate writing samples are needed for the application portfolio, including at least one research paper).
- COMM 398 (Research Methods in Communication) should be taken by the student as soon as possible once the student is accepted into the department.

## Bachelor of Arts

### Communication Studies, BA

Department of Communication Studies, College of Humanities and Social Sciences

### 50 credits (plus minor)

#### Introduction/What is the Study of Communication?

We teach communication studies that nurture inclusive civil discourse, critical thinking, and cooperative solutions in a diverse global community. We offer opportunities to develop strong communication skills within a challenging liberal arts program.

#### Why Consider a Communications Studies Major?

Communication Studies graduates qualify for a variety of careers. Strong attention to research and writing provides students with skills needed for entry-level positions in organizational training and development, public relations, marketing, electronic media and other information-oriented occupations. The entire Communication Studies field is growing rapidly with increased diversification of employment opportunities. Most people are born with the ability to acquire communication skills, and we can help you realize your full potential. We believe the educational techniques of direct instruction, guided rehearsals and modeling provide tools for developing effective communication practices. In addition, you can learn more about developing stronger communities through ethical interaction, civil public discourse and cooperative decision-making.

#### Contact Information

**Department Chair**

Michael Karlberg, Ph.D.  
Communications Facility 289  
360-650-7367  
Michael.Karlberg@wwu.edu

**Department Manager**

Ann Reynolds  
Communications Facility 295  
360-650-3870  
Ann.Reynolds@wwu.edu

For pre-major advising, visit the drop-in Communication Studies Peer Advisors in Communications Facility 203, or the Communication Studies Department Manager in Communications Facility 295.

### Sample Careers

Consumer Affairs Specialist | Personnel Specialist | Public Relations Specialist | Promotions Manager | Recruiter | Mediator | Training and Development Specialist | Bank Officer | Real Estate Agent

### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students contemplating a major in Communication Studies are encouraged to register as pre-majors with the communication studies department in Communications Facility 203, in order to ensure that they receive appropriate advising and relevant communications from the department.

Students wishing to declare a major in Communication Studies must submit a portfolio to the department (see below) in order to be admitted through a competitive selection process.

Admission to the major will, in part, be determined by the number of applicants and their qualifications in any given quarter. Cumulative grade point average (GPA) will be one of the major criteria for admission. In most quarters, the average GPA of successful applications is above 3.0. Other factors considered by faculty when selecting communication studies majors are writing samples, work and service experiences with diverse populations, reference letters, and seniority at WWU.

Before applying to become a Communication Studies major, students must:

- Complete COMM 101 or COMM 235 with a B- or better.
- Complete COMM 220, with a B- or better.
- Complete at least 60 credits of WWU credits or approved transfer credits with a GPA of 2.5 or above.

Once these requirements have been met, students can submit a portfolio of their work on or before Monday of the fourth week of fall, winter and spring quarters. The faculty will then review the portfolios and announce the names of successful applicants before the end of each quarter. Students are allowed to make a maximum of two application attempts.

The portfolio will include the following items:

- Transcripts of all college work completed to date
- A letter of intent to major in communication studies
- A résumé including course of study, work experience, recreational and a vocational activities, internships, awards and honors, and public service activities
- Two samples of the student's collegiate writing assignments including best research paper
- Three letters of recommendation from employers, teachers, or supervisors
- A proposed program of study form which includes a statement indicating a chosen minor or second major from another department. In lieu of an official minor, the department will accept a self-designed event-planning minor under faculty advisement if the appropriate paperwork is included in the portfolio. Students may also substitute a TESOL certification or Internet Studies certification for the minor.

Transfer students must include a Transcript Equivalency Report (TER) for any transfer credits that will be applied toward the major.

Once admitted, communication studies majors whose cumulative GPA falls below 2.5 risk losing their major status. They will be warned of the risk in their first quarter below 2.5 and may be dropped from the major if their cumulative GPA is not 2.5 or higher in the subsequent quarter.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- One of the following courses that emphasizes public speaking:

## COMMUNICATION STUDIES

- COMM 101 - Fundamentals of Speech
- COMM 235 - Exposition and Argumentation \*
  - One of the following courses that emphasizes library research:
    - COMM 235 - Exposition and Argumentation \*
- LIBR 201 - Introduction to Research Strategies
  - \*COMM 235 may be used to fulfill both the public speaking requirement and the library research requirement
- COMM 220 - Communication Theory
- COMM 398 - Research Methods in Communication
- COMM 498 - Communication Ethics
- Electives: Complete 27-31 additional credits from the categories below to reach 50 credits total for the major:
  - COMM 100-level courses
  - COMM 200-level courses
  - COMM 300-level courses
  - COMM 400-level courses
- JOUR 190 - Introduction to Mass Media
  - Note regarding electives:**
    - Complete at least 12 credits of upper division COMM credits other than COMM 398 and COMM 498
    - No more than 6 credits from COMM 236, 300, 339, 400, 436, 450, 451, 459 are allowed to count toward the major
    - Complete 3 Writing Proficiency (WP) COMM courses. WP courses from other departments will not apply toward this requirement.
  - Complete the minor requirement (as outlined above)

### Departmental Honors

A communication major who wishes to graduate with honors in communication must achieve a cumulative GPA of 3.75 at WWU.

## Bachelor of Arts in Education

### Communication — Elementary, BAE

Department of Communication Studies, College of Humanities and Social Sciences

#### 50 Credits

#### Introduction/What is the Study of Communication Studies-Elementary?

According to our National Communication Association, we focus on how people use messages to generate meanings. We promote effective and ethical practices across different channels, cultures, situations and media.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in elementary education.

#### Why Consider a Communications Studies-Elementary Major?

Communication graduates qualify for a variety of careers. Strong attention to research and writing provides students with skills needed for entry-level positions in organizational training and development, public

relations, marketing, electronic media and other information-oriented occupations. The entire Communication field is growing rapidly with increased diversification of employment opportunities.

Most people are born with the ability to acquire communication skills, and we can help you realize your full potential. We believe the educational techniques of direct instruction, guided rehearsals and modeling provide tools for developing effective communication practices. In addition, you can learn more about developing stronger communities through ethical interaction, civil public discourse and cooperative decision-making.

A Communication Elementary BAE, is completed in conjunction with the Woodring College of Education's Elementary Education Professional Program, and satisfies the academic major requirement for teacher certification with an endorsement in elementary education. See Woodring's Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### Contact Information

##### Department Chair

Michael Karlberg, Ph.D.  
Communications Facility 289  
360-650-7367  
Michael.Karlberg@wwu.edu

##### Department Manager

Ann Reynolds  
Communications Facility 295  
360-650-3870  
Ann.Reynolds@wwu.edu

For pre-major advising, visit the drop-in Communication Studies Peer Advisors in Communications Facility 203, or the Communication Studies Department Manager in Communications Facility 295.

##### Elementary Educational Professional Program Information

Miller Hall 300  
360-650-3336  
<http://www.wce.wwu.edu/Depts/ELED>

##### Teacher Education Admissions

Miller Hall 150  
360-650-3313  
<http://www.wce.wwu.edu/admiss>

##### Elementary Education Professional Program Advisor and Program Manager

Ellen Kreider  
Miller Hall 301D  
360-650-7948  
Ellen.Kreider@wwu.edu

#### Sample Careers

Elementary Teacher

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students wishing to declare a major in Communication Studies must have completed at least 60 credits a GPA of 2.5 or above. Students must submit a portfolio to the department (see below) in order to be admitted through a competitive selection process.

Admission to the major will, in part, be determined by the number of applicants and their qualifications in any given quarter. Cumulative grade point average (GPA) will be one of the major criteria for admission. In most quarters, the average GPA of successful applications is above 3.0. Other factors considered by faculty when selecting Communication Studies majors are writing samples, work and service experiences with diverse populations, reference letters, and seniority at WWU.

Before applying to become a Communication Studies major, students must:

- Complete COMM 101 or COMM 235 with a B- or better.
- Complete COMM 220, with a B- or better.

Once the above courses have been completed, students can submit a portfolio of their work on or before Monday of the fourth week of fall, winter and spring quarters. The faculty will then review the portfolios and announce the names of successful applicants before the end of each quarter. Students are allowed to make a maximum of two application attempts.

The portfolio will include the following items:

- Transcripts of all college work completed to date
- A letter of intent to major in communication studies
- A résumé including course of study, work experience, recreational and avocational activities, internships, awards and honors, and public service activities

## COMMUNICATION STUDIES

- Two samples of the student's collegiate writing assignments including best research paper or class project
- Three letters of recommendation from employers, teachers, or supervisors
- A proposed program of study which includes a statement indicating a chosen minor or a self-designed minor. (A self-designed minor is comprised of at least 25 credits and is acceptable only when the student has a clear educational goal that cannot be met within existing minors on campus. Requests to pursue a self-designed minor must include a written statement prepared by the student indicating the rationale for the self-designed minor and the courses selected.)

Once admitted, communication studies majors whose cumulative GPA falls below 2.5 risk losing their major status. They will be warned of the risk in their first quarter below 2.5 and may be dropped from the major if their cumulative GPA is not 2.5 or higher in the subsequent quarter.

### Grade Requirements

A grade of C (2.0) or better is required for courses in the elementary education professional program and all courses required for the endorsements.

Maintain a GPA of 2.75 for all college work

### Requirements

- Satisfy departmental requirements for declaration of major:
  - Complete COMM 101 - Fundamentals of Speech  
OR
  - COMM 235 - Exposition and Argumentation with a B- or better.
  - COMM 398 - Research Methods in Communication
  - COMM 498 - Communication Ethics
  - Complete a course that emphasizes library research strategies and skills. Only the following courses are approved:
    - COMM 235 - Exposition and Argumentation
  - LIBR 201 - Introduction to Research Strategies
    - Complete a total of 50 departmental credits including: COMM 101 and/or COMM 235, COMM 220, COMM 398, COMM 498. Minimum of 12 other upper division COMM credits. No more than six credits from the following may be counted toward the 50 credits total:
      - COMM 236 - Intercollegiate Forensics
      - COMM 300 - Independent Study
      - COMM 339 - Practicum in Applied Communication
      - COMM 400 - Independent Study
      - COMM 436 - Advanced Forensics and Debate
      - COMM 450 - Communication Pedagogy I
      - COMM 451 - Communication Pedagogy II
      - COMM 459 - Field Internship in Communication

### Additional Requirements

### Elementary Education Professional Program Requirements (103-104 credits)

Department of Elementary Education, Woodring College of Education

## Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

## Admission and Declaration Process

Admission Requirements

## Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

Professional Studies Core (25 credits)

- ELED 301 - Educational Psychology I: Development and Individual Differences
- ELED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Basic Instructional Technology Skills
- I T 442 - Classroom Use of Instructional Technology (Elementary)
- SPED 364 - Teaching Each Student

Elementary Program — Methods, Curriculum Content, and Field Experiences (78-79 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
  - ELED 425 - Social Studies for the Elementary School
  - ELED 470 - Developing Teaching
  - ELED 471 - Documenting Teaching
  - ELED 480 - Literacy: Beginning Communicators
  - ELED 481 - Literacy: Fluent Communicators
  - ELED 491 - September Experience
  - ELED 492 - Practicum: Experience in Literacy Methods
  - ELED 494 - Internship - Elementary
  - HLED 455 - Health Education Grades K-8
  - MATH 381 - Teaching K-8 Mathematics I
  - MATH 382 - Teaching K-8 Mathematics II
  - MATH 383 - Teaching K-8 Mathematics III
  - MATH 491 - Internship Seminar - Teaching K-8 Mathematics
  - PE 345 - Physical Education for Elementary School
  - SCED 480 - Science Methods and Curriculum for the Elementary School



# COMMUNICATION STUDIES

- SCED 490 - Laboratory/Field Experience in Elementary Science

## Departmental Honors

A communication studies major who wishes to graduate with honors in communication studies must maintain a GPA of 3.5 in upper-division communication courses and successfully complete COMM 492, Senior Thesis, under the direction of a faculty advisor. In addition, the student must provide evidence of excellence and extensive participation (from 2 to 6 quarters) in research, forensics, intercultural/international, or service activities, under advisement. A detailed list of courses and activities from which a student may earn departmental honors will be available from faculty advisors.

## Minor

### Communication Minor

Department of Communication Studies, College of Humanities and Social Sciences

### 25 credits (minimum)

### Introduction/What is the Study of Communication?

### Why Consider a Communication Minor?

#### Contact Information

##### Department Chair

Michael Karlberg, Ph.D.  
Communications Facility 289  
360-650-7367  
Michael.Karlberg@wwu.edu

#### Sample Careers

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- One course from:
  - COMM 101 - Fundamentals of Speech
  - COMM 235 - Exposition and Argumentation
  - COMM 220 - Communication Theory
- Plus additional courses totaling a minimum of 16 credits and including one upper-division course from the following:
  - COMM 224 - Small Group Processes
  - COMM 230 - Rhetorical Theory and Criticism

- COMM 235 - Exposition and Argumentation
  - COMM 325 - Intercultural Communication
  - COMM 327 - Interpersonal Communication
  - COMM 331 - Advanced Public Speaking
- or other upper-division COMM courses when space is available

Only one of:

- COMM 244 - Advocacy Through Media
  - JOUR 190 - Introduction to Mass Media
- The minor may include no more than 3 credits from the following:
- COMM 236 - Intercollegiate Forensics
  - COMM 300 - Independent Study
  - COMM 339 - Practicum in Applied Communication
  - COMM 400 - Independent Study
  - COMM 436 - Advanced Forensics and Debate
  - COMM 450 - Communication Pedagogy I
  - COMM 451 - Communication Pedagogy II

Students may petition the minor advisor for an additional 3 credits from this series of courses; approval of petition is required well before the graduation evaluation deadline.

## Communication Studies Courses

### **COMM 101 - Fundamentals of Speech**

Functional approach to effective communication. Emphasizes the application of principles to practical problems in speech for persons with little or no previous public speaking experience. Students with prior public speaking experience are advised to take COMM 235 to satisfy GUR requirements or communication major application requirements.

Credits: 4  
GUR Attributes: BCOM

### **COMM 220 - Communication Theory**

Survey of human communication focuses on communication theories, concepts and principles ranging from intrapersonal to interpersonal, group, organizational, rhetorical, intercultural, international and mass communication.

Credits: 5

### **COMM 224 - Small Group Processes**

Exploration of the dynamics of human interaction in small group settings. Group tasks include the development of problem-solving skills, utilizing topics of current interest.

Credits: 4  
GUR Attributes: BCOM

### **COMM 225 - Communication, Diversity and Controversy**

This course is designed to foster the skills necessary for civil engagement and effective dialogue on controversial issues. Students will learn to appreciate, integrate, and effectively challenge diverse perspectives on a number of traditionally-divisive topics.

Credits: 4

### **COMM 230 - Rhetorical Theory and Criticism**

Through a survey of major rhetorical scholarship from ancient Greek through the present, students are introduced to both rhetorical theories and modes of criticism that guide the field. Emphasis is placed on the important role rhetoric plays in contemporary public discourse and democratic citizenship.

Credits: 5

### **COMM 235 - Exposition and Argumentation**

Theory and practice of principles of reasoned discourse as applied to public discussion of

# COMMUNICATION STUDIES

controversial issues. Students with prior background or experience in public speaking should consider COMM 235 as an alternative to COMM 101.

Credits: 4  
GUR Attributes: BCOM

## **COMM 236 - Intercollegiate Forensics**

Debate, extemporaneous and impromptu speaking, and interpretive reading and other phases of forensics. Repeatable to a maximum of 6 cr. S/U grading.

Credits: 2  
Grade Mode: S/U

## **COMM 240 - Media Studies**

This course develops students' ability to think critically about mass media. Media messages and images are examined, as well as the social, political, and historical significance of media.

Credits: 5

## **COMM 244 - Advocacy Through Media**

Introduction to nonprofit information campaigns, social issues marketing and other forms of advocacy through contemporary mass media. Students will learn basic theory and then engage in applied exercises as well as service learning assignments.

Credits: 4

## **COMM 244S - Advocacy Through Media**

Introduction to nonprofit information campaigns, social issues marketing, and other forms of advocacy through contemporary mass media. Students will learn basic theory and then engage in applied exercises as well as service learning assignments.

Credits: 3

## **COMM 318 - Professional Communication**

This course integrates business writing, public speaking, collaborative problem solving, and diversity training in a professional development context. Includes theory application and skill development. Students will be working in

collaboration with organizations on or off campus.

## **Prerequisites & Notes:**

Junior status.

Credits: 5

## **COMM 319 - Communication and Healthcare**

This course is designed for healthcare professionals and others interested in communication skills for healthcare contexts. Students will be introduced to the theory and practice of effective and caring communication in the healthcare field, with a focus on strengthening and refining skills for communicating with diverse audiences.

Credits: 3

## **COMM 322 - Civil Discourse as Learning Interaction**

This course explores the nature of public civil discourse and provides instruction and practice in writing and speaking across differences for a range of public audiences in an effort to enhance the collective good. By focusing on the theory and practice of civil discourse as a means for accomplishing effective dialogue, students will develop concepts, attitudes, and skills - both oral and written - needed to be engaged learners and citizens in the campus community and beyond. Course requires participation in Western's Teaching-Learning Academy (TLA), which includes students, faculty, and staff who are working collectively to enhance the University learning environment.

## **Prerequisites & Notes:** ENG 101

Credits: 4  
GUR Attributes: CCOM

## **COMM 325 - Intercultural Communication**

Introduction to intercultural communication. Principles, concepts and various topics in this rapidly growing, important field. Covers the needed skills in communicating effectively with people of diverse cultural backgrounds.

## **Prerequisites & Notes:** 4 credits Comparative Gender/Multicultural Studies GUR or COMM 220

Credits: 5

**COMM 327 - Interpersonal Communication**

Focuses on theory and practice in work, family, and social settings. Emphasizes observation, analysis, and skills training in relationship development. Topics include language use, listening, nonverbal behavior and conflict management.

**Prerequisites & Notes:** Junior status

Credits: 5

**COMM 331 - Advanced Public Speaking**

Theory and practice in the art of public discourse.

**Prerequisites & Notes:** COMM 101 or COMM 235.

Credits: 3

**COMM 339 - Practicum in Applied Communication**

Students function in a variety of directed studies and contexts in which they apply their communication skills. Covers putting theory into practice in such areas as small group communication, interpersonal communication, organizational communication, intercultural communication and applied public information strategies. Repeatable to a maximum of 12 cr. S/U grading.

Credits: 1-3

Grade Mode: S/U

**COMM 350 - Emerging Communication Technologies**

Primary course objective is technological literacy - gaining skills and experience for working with emerging communication technologies. Students will engage in a range of experiential and service learning assignments using various emerging technologies. Secondary objective is technology critique and the study of theories of technology.

Credits: 5

**COMM 398 - Research Methods in Communication**

Course should be taken as soon as possible after admission to the major as it is prerequisite for most 400-level communication courses. Survey of qualitative and quantitative research methods utilized in the field of communication.

**Prerequisites & Notes:** Departmental majors only

Credits: 5

**COMM 416 - Topics in Communication**

In-depth coverage of special topics in communication, rhetoric and mass media. The subject of each individual course and its prerequisite is announced in the Timetable of Classes. Repeatable with different topics to a maximum of 12 credits.

**Prerequisites & Notes:** Senior status; COMM 398 or permission of instructor

Credits: 3-5

**COMM 416G - Interpersonal Conflict Resolution**

Identification of many communication problems inherent in communication processes and insight into increasing rhetorical and behavioral options for resolving interpersonal conflict. 6 weeks.

Credits: 3

**COMM 416R - Communication & Creativity**

This course investigates the question 'What techniques enhance creativity and competency in communication?' The course is grounded in the recent research of R. Keith Sawyer, as reflected in his book 'Creating Conversations' and the scholarly work of Stephen Nachmanovitch, presented in his book 'Free Play'. Additionally lectures will cover the contributions of various acknowledged experts on creativity and play. Classes will include exploration of improvisation techniques and reflections on these experiences.

**Prerequisites & Notes:** Major restricted; juniors and seniors.

Credits: 4

**COMM 420 - Issues in Communication Theory**

In-depth examination of advanced theories in human communication. Emphasis on theory

## COMMUNICATION STUDIES

development.

**Prerequisites & Notes:** COMM 398 or permission of instructor.

Credits: 5

### **COMM 425 - Issues in Intercultural Communication**

Introduction to dynamic forces that enhance effective communication between persons with various cultural backgrounds. Covers topics such as differences, similarities, values, pride and prejudice, cultural barriers in communication settings, and effectiveness of intercultural communication.

**Prerequisites & Notes:** COMM 325 and COMM 398 or permission of instructor.

Credits: 5

### **COMM 427 - Issues in Interpersonal Communication**

Senior seminar that offers an in-depth examination of theories and practices in interpersonal communication.

**Prerequisites & Notes:**

COMM 327 and COMM 398 or permission of instructor.

Credits: 5

### **COMM 428 - Organizational Communication**

Emphasizes the role of communication as central in human organizing. Describes the relationships among communication theories and other theories of organizational behavior. Applies theories to varied organizational settings.

Credits: 5

### **COMM 430 - Visual Rhetoric**

This course aims to interrogate the relationship between rhetoric and the image. Devoting attention to theories that explore the symbolic and performative dimensions of visual culture, this course introduces advanced students to theories of perception and visual interpretation as they relate to visual communication, media and film studies, cultural studies, art, literature, memory, and the public spectacle.

**Prerequisites & Notes:** Junior status or permission of instructor.

Credits: 5

### **COMM 435 - Principles of Persuasion**

Study of principles that influence attitudes and opinions in persuasive situations. Normally offered alternate years.

**Prerequisites & Notes:** COMM 235 and junior status or permission of instructor.

Credits: 4

### **COMM 436 - Advanced Forensics and Debate**

Emphasis on intercollegiate debate with opportunity for experience in extemporaneous, impromptu and persuasive speaking. A maximum of 6 credits may be earned in COMM 436; a combined total of 6 credits from COMM 236 and COMM 436 may be applied to the major. S/U grading.

**Prerequisites & Notes:** 6 credits COMM 235 and/or COMM 236

Credits: 2

Grade Mode: S/U

### **COMM 440 - Critical Media Literacy**

Examination of advanced theories in mass communication and media literacy. Examines social, political, and economic forces that shape media; influences of media on society; and issues of media policy, media advocacy, and media reform.

**Prerequisites & Notes:** COMM 240 or JOUR 190; COMM 398.

Credits: 5

### **COMM 442 - Video Workshop**

Production of the University's cable television show, Western View. Course includes practical application of techniques used in video production. Utilizes digital technology, graphic materials, design and staging. Students will learn the role of producer and director. Repeatable to a maximum of 6 cr. S/U grading.

**Prerequisites & Notes:** Recommended prior to registration: JOUR 190, COMM 350 or previous

video experience; written permission of instructor.  
Credits: 2  
Grade Mode: S/U

**COMM 450 - Communication Pedagogy I**

Serve as undergraduate tutor for students taking communication courses. Learn instructional methods and gain further mastery of course content. Conduct supervised tutoring and feedback for students enrolled in communication courses. S/U grading

**Prerequisites & Notes:** Recommendation; written permission of instructor.  
Credits: 3  
Grade Mode: S/U

**COMM 451 - Communication Pedagogy II**

Help supervise teams of undergraduate tutors. Develop leadership, organizational and pedagogical skills. S/U grading.

**Prerequisites & Notes:** COMM 450; recommendation; written permission of instructor.  
Credits: 3  
Grade Mode: S/U

**COMM 454 - Instructional Communication**

This course is designed for prospective elementary, secondary and college teachers and communication trainers/consultants. Communication theories, principles, and skills applicable to the classroom context are addressed as they apply to teaching in general and communication specifically.

**Prerequisites & Notes:** COMM 398 or permission of instructor.  
Credits: 5

**COMM 459 - Field Internship in Communication**

Supervised work in communication with an educational institution, public agency, private enterprise, broadcast station or other appropriate business. Meetings, written reports and a paper related to the internship are required. For students applying for media internships, plan to complete all academic course work before the internship, as this is the usual career pattern for those in that area. Repeatable to a maximum of 12 cr. A

maximum of 6 cr may be applied to the COMM major. S/U grading.

**Prerequisites & Notes:** Senior status; written permission of advisor; departmental majors only.  
Credits: 3-12  
Grade Mode: S/U

**COMM 492 - Senior Thesis**

Supervised independent research on an advanced topic, leading to a substantial research paper. Two quarters prior, student should seek out a supervising faculty member to begin preparation and planning. One quarter prior, student should complete a preparatory independent study (Comm 400) that includes a literature review, an outline of methods and, if needed, a Human Subjects Review form.

**Prerequisites & Notes:** COMM 398; departmental majors only; permission of a supervising professor.  
Credits: 5

**COMM 498 - Communication Ethics**

This capstone course examines diverse ethical theories and perspectives pertaining to communication in contexts ranging from the local to the global. Students will have opportunities to reflect on and clarify their own ethical commitments, and to understand these in relation to ethical theories and perspectives in the field of communication studies.

**Prerequisites & Notes:** COMM 398 or permission of instructor.  
Credits: 5

# East Asian Studies

## Introduction

East Asia, as one of the world centers of high civilization, has long been the object of cultural interest and study. Increasingly, it has become important for economic and political reasons as well. The Center for East Asian Studies provides a focal point for the University's interaction with East Asia and for academic study of the region.

The program in East Asian studies emphasizes the interdisciplinary study of the area, primarily the countries of China, Japan, Korea and Mongolia. The course of study is designed to attain three major objectives. First, it offers students an opportunity to acquire accurate, detailed and comprehensive knowledge of a region that is becoming increasingly important in world affairs. Second, it prepares students who are attracted by job opportunities related to East Asia in business and government. For those who wish to teach about East Asia, the program provides appropriate preparation. Third, it provides solid undergraduate training for students who plan to enter East Asian programs for graduate studies.

Students interested in pursuing a major in East Asian studies should consult the director of the Center for East Asian Studies, Massimiliano Tomasi, 360-650-3339, e-mail: Massimiliano.Tomasi@wwu.edu.

## Faculty

**MASSIMILIANO TOMASI**, Director. Modern and Classical Languages. Japanese language and culture, modern Japanese rhetoric and literature.

**PATRICK BUCKLEY**, Geography. Geography and economics of Japan.

**MASANORI DEGUCHI**, Modern and Classical Languages. Japanese language and linguistics.

**MARGARET FAST**, Wilson Library. Methods and materials in East Asia Research.

**JAMES HEARNE**, Computer Science. Chinese philosophy, Chinese science, East Asian language computing.

**ROBERT KIM**, Education. Korean language, literature and culture.

**ROBERT MARSHALL**, Anthropology. Japanese business culture, economy and politics of Japan.

**DEBNATH MOOKHERJEE**, Geography. Cultural geography, urbanism, East and South Asian geography.

**KRISTEN PARRIS**, Political Science. East Asian politics.

**SCOTT PEARCE**, Liberal Studies. Medieval Chinese history.

**JUDY PINE**, Anthropology. South and East Asian languages and cultures.

**TOM ROEHL**, Management. International business.

**WAYNE RICHTER**, Wilson Library. Mongolian language.

**JULIA SAPIN**, Art. Asian art history, Japanese art, art of the Pacific Rim.

**HENRY G. SCHWARZ**, History and East Asian Studies, Emeritus. Mongolian and modern Chinese history, minorities of Northern China.

**ROGER THOMPSON**, History. Traditional and modern Chinese history.

**EDWARD J. VAJDA**, Modern and Classical Languages. Inner Asian and Siberian languages and history.

**JIANGLONG WANG**, Communications. Intercultural communications.

**DIANA WRIGHT**, History. Pre-modern Japanese history, religion in Japanese history.

**JANET XING**, Modern and Classical Languages. Chinese language, Chinese linguistics.

**NING YU**, English. Chinese and Chinese-American literatures.

**MICHIKO YUSA**, Modern and Classical Languages. History of religion, Japanese language and culture.

## Adjunct Faculty

**PAUL BUELL**, East Asian Studies. Chinese and Japanese culture, traditional Chinese medicine.

**CHARLES KRUSEKOPF**, Mongolian Studies.

**HO-CHIN YANG**, Modern and Classical Languages. Chinese language, history of Tibet.

**LILLY YANG**, Modern and Classical Languages. Chinese language.

## Other Departmental Information

### *Tutorials and Study Abroad*

The Center for East Asian Studies also offers tutorials in advanced Chinese and Japanese. Elementary and intermediate Mongolian language is offered through Extended Education.

Study Abroad: Students are encouraged to spend up to one year in a study abroad program, including Asia University; Tsuda College; Oberlin College, KCP in Tokyo; Inner Mongolia University, Hohhot; Seoul Women's University, Seoul; Yonsei University in Seoul; or Yunnan University, Kunming, China. Many other programs such as CET and CIEE provide opportunities for study in Beijing, Shanghai, Nanjing, Kunming and Taipei.

## Bachelor of Arts

### East Asian Studies, BA

East Asian Studies, College of Humanities and Social Sciences

#### 60 credits

#### Introduction/What is the Study of East Asian Studies?

The course of study is designed to attain three major objectives. First, it offers students an opportunity to acquire accurate, detailed and comprehensive knowledge of a region that is becoming increasingly important in world affairs. Second, it prepares students who are attracted by job opportunities related to East Asia in business and government. For those who wish to teach about East Asia, the Program provides appropriate preparation. Third, it provides solid undergraduate training for students who plan to enter East Asian programs in their graduate studies.

#### Why Consider an East Asian Studies Major?

The Program in East Asian Studies offers interdisciplinary study of the area, primarily the countries of China and Japan. Under special advisement, Korea and Mongolia are also subjects for study. The major offers students an opportunity to prepare for positions in cultural organizations, diplomatic offices, companies engaged in international business, and in educational institutions.

#### Contact Information

##### Major Information Director

Massimiliano Tomasi

Miller Hall 222C

360-650-3339

massimiliano.tomasi@wwu.edu

#### Sample Careers

International Consultant | International Business Manager | International Sales | Foreign News Correspondent | Tour Guide/Agent | Museum Administrator | Librarian/Information Specialist | Foreign Service Worker | FBI/CIA Agent | Intelligence Researcher | Cultural Officer | Foreign Diplomat | Immigration Agent | College Professor | Secondary Education Teacher

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)



# EAST ASIAN STUDIES

## How to Declare (Admission and Declaration Process):

To declare the major, schedule an appointment with the Director, Massimiliano Tomasi. He will review with you the complete process for designing your major by showing you options of core courses, language courses, and electives in the area of Asian Studies that is of particular interest to you.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- Two years of Chinese or Japanese language (Mongolian or Korean by special arrangement) from the following. A maximum of thirty language credits may apply.
  - CHIN 101 - First-Year Chinese
  - CHIN 102 - First-Year Chinese
  - CHIN 103 - First-Year Chinese
  - CHIN 201 - Second-Year Chinese
  - CHIN 202 - Second-Year Chinese
  - CHIN 203 - Second-Year Chinese
  - CHIN 301 - Third-Year Chinese
  - CHIN 302 - Third-Year Chinese
  - CHIN 303 - Third-Year Chinese
- OR
- JAPN 101 - First-Year Japanese
- JAPN 102 - First-Year Japanese
- JAPN 103 - First-Year Japanese
- JAPN 201 - Second-Year Japanese
- JAPN 202 - Second-Year Japanese
- JAPN 203 - Second-Year Japanese
- JAPN 301 - Third-Year Japanese
- JAPN 302 - Third-Year Japanese
- JAPN 303 - Third-Year Japanese
- EAST 201 - Introduction to East Asian Civilizations
- EAST 202 - East Asian History in the Early-Modern and Modern Eras
- EAST 302 - Methods and Materials in East Asian Studies
- One course from:
  - EAST 367 - Chinese Literature in Translation
  - EAST 368 - Japanese Literature in Translation
- Additional credits from courses approved by the Center for East Asian Studies as listed below: (At least 8 credits must be at the 400 level)
  - A/HI 370 - Islamic Visual Cultures
  - ANTH 362 - Peoples of Asia
  - ANTH 460 - Culture and Society of Japan
  - ANTH 463 - Peoples of East and Southeast Asia
  - CHIN 330 - Chinese Culture Through Film and Literature
  - CHIN 390 - Introduction to Chinese Language and Linguistics
  - EAST 313 - Early Inner Asia
  - EAST 314 - The Mongols

- EAST 367 - Chinese Literature in Translation
- EAST 368 - Japanese Literature in Translation
- ENVS 333 - East Asia: Society and Environment
- ENVS 431 - Pacific Rim
- HIST 362 - Asian-American History
- HIST 370 - Chinese History to 600 Ad
- HIST 372 - Chinese History: 1800 to Present
- HIST 374 - Premodern Japanese History
- HIST 375 - Modern Japanese History
- HIST 479 - Medieval and Early-Modern Chinese History
- HIST 480 - Modern Chinese Social History
- HIST 481 - The Chinese Revolution
- HIST 483 - Early Modern Japan
- HIST 484 - Women in Japanese History
- HIST 485 - Japanese Military History: Samurai Fact and Fiction
- HIST 486 - Religion in Japanese History
- IBUS 370 - Introduction to International Business
- IBUS 474 - Topics in International Business
- JAPN 330 - Japanese Culture Through Film
- JAPN 401 - Advanced Japanese
- LBRL 375 - Buddhism
- LBRL 380 - Religion and Society in China
- LBRL 382 - Religion and Society in Japan
- PLSC 307 - East Asia
- PLSC 430 - Modern Chinese Politics

## Minor

### East Asian Studies Minor

East Asian Studies, College of Humanities and Social Sciences

#### 30 Credits

#### Introduction/What is the Study of East Asian Studies?

The following minor may be combined with a major in history or in political science for a major concentration, or may be elected as a minor by majors in other fields. For description of courses, see the sections of cooperating departments.

#### Why Consider an East Asian Studies Minor?

##### Contact Information

##### Minor Information

Massimiliano Tomasi

Miller Hall 222C

360-650-3339

massimiliano.tomasi@wwu.edu

##### Sample Careers

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- EAST 201 - Introduction to East Asian Civilizations
- EAST 202 - East Asian History in the Early-Modern and Modern Eras
- One course from:
  - EAST 367 - Chinese Literature in Translation
  - EAST 368 - Japanese Literature in Translation
- Additional credits from other East Asian courses or from courses approved by the Center for East Asian Studies (a minimum of 4 credits must be at the 300-400 level):
  - A/HI 271 - Visual Culture in East Asia
  - A/HI 370 - Islamic Visual Cultures
  - AMST 205 - The Asian-American Experience
  - ANTH 362 - Peoples of Asia
  - ANTH 460 - Culture and Society of Japan
  - ANTH 463 - Peoples of East and Southeast Asia
  - CHIN 280 - Traditional Chinese Characters and Calligraphy
  - CHIN 330 - Chinese Culture Through Film and Literature
  - CHIN 390 - Introduction to Chinese Language and Linguistics
  - EAST 230 - Modern Chinese Society and Language
  - EAST 313 - Early Inner Asia
  - EAST 314 - The Mongols
  - EAST 367 - Chinese Literature in Translation (if not used to satisfy above requirement)
  - EAST 368 - Japanese Literature in Translation (if not used to satisfy above requirement)
- ENVS 333 - East Asia: Society and Environment
- ENVS 431 - Pacific Rim
- ENG 236 - Introduction to Asian-American Literatures
- EUS 210 - Nomads of Eurasia
- HIST 362 - Asian-American History
- HIST 370 - Chinese History to 600 Ad
- HIST 372 - Chinese History: 1800 to Present
- HIST 374 - Premodern Japanese History
- HIST 375 - Modern Japanese History
- HIST 479 - Medieval and Early-Modern Chinese History
- HIST 480 - Modern Chinese Social History
- HIST 481 - The Chinese Revolution
- HIST 483 - Early Modern Japan
- HIST 484 - Women in Japanese History

- HIST 485 - Japanese Military History: Samurai Fact and Fiction
- HIST 486 - Religion in Japanese History
- IBUS 370 - Introduction to International Business
- IBUS 474 - Topics in International Business
- JAPN 280 - Kanji
- JAPN 330 - Japanese Culture Through Film
- JAPN 401 - Advanced Japanese
- LBRL 273 - Art and Society in China and Japan
- LBRL 275 - Humanities of Japan
- LBRL 277 - Humanities of China
- LBRL 375 - Buddhism
- LBRL 380 - Religion and Society in China
- LBRL 382 - Religion and Society in Japan
- PLSC 307 - East Asia
- PLSC 430 - Modern Chinese Politics

## East Asian Studies Courses

### **EAST 201 - Introduction to East Asian Civilizations**

The origins and evolution of the political, economic, cultural and social aspects of East Asian civilization in through the early-modern period. Also taught as HIST 280.

**Prerequisites & Notes:** also offered as HIST 280  
Credits: 5  
GUR Attributes: ACGM

### **EAST 202 - East Asian History in the Early-Modern and Modern Eras**

Examines political, cultural and social aspects of East Asian civilizations with attention to the early-modern and modern periods. Also taught as HIST 281.

**Prerequisites & Notes:** also offered as HIST 281  
Credits: 5  
GUR Attributes: ACGM

### **EAST 230 - Modern Chinese Society and Language**

A survey of the characteristics of the Chinese language. A study of the relationships among Chinese culture, contemporary society and language variation.

Credits: 3  
GUR Attributes: ACGM

### **EAST 302 - Methods and Materials in East Asian Studies**

Research methods in East Asian studies; organization of Chinese and Japanese libraries; principal journals, reference tools and scholarly apparatus for various areas of East Asia.

**Prerequisites & Notes:** EAST 201, EAST 202; one year of Chinese or Japanese.  
Credits: 3

### **EAST 313 - Early Inner Asia**

A detailed history of the Eurasian steppe and desert tribes from the earliest times to the rise of the Mongols under Chingiz Khan in the late 12th century. Discusses the complex cultural and political interplay among the early Indo-European, Turkic and Mongol pastoralists as well as their often cataclysmic interaction with the sedentary civilizations of the world.

**Prerequisites & Notes:** EAST 201 or EAST 202 or EAST 210 or HIST 280 or HIST 281 or instructor permission.  
Credits: 4

### **EAST 314 - The Mongols**

Documents the history of the Eurasian steppes from the rise of Chingiz Khan to the present day. Describes the creation of the world's largest empire, its gradual disintegration and its partial

## EAST ASIAN STUDIES

absorption by the agricultural societies on its periphery. Includes analysis of recent political events in this area of the world.

**Prerequisites & Notes:** EAST 201 or EAST 202 or EAST 210 or HIST 280 or HIST 281 or instructor permission.  
Credits: 4

**EAST 367 - Chinese Literature in Translation**  
Selected readings in Chinese literary masterpieces from earliest to modern times.

**Prerequisites & Notes:** EAST 201 or EAST 202 or CHIN 103 or LBRL 277 or permission of instructor.  
Credits: 5

**EAST 368 - Japanese Literature in Translation**  
Selected readings in Japanese literary masterpieces from early modern times to the present.

**Prerequisites & Notes:** EAST 201 or EAST 202 or LBRL 275 or permission of instructor.  
Credits: 5

# English

## Introduction

The English major engages students in reflective reading, creative inquiry, critical analysis, and effective expression. The study of literature, linguistics, writing, film, and visual media prepares graduates to pursue a variety of careers, including law, business, government, professional writing, publishing, and education. These studies also prepare students for graduate programs.

The Department of English offers three major emphases: literature, creative writing, and teacher preparation. Two programs lead to the Bachelor of Arts in English. English: Literature Emphasis focuses on the study of literature in historical and cultural contexts and includes course work in English language and literature, literary and rhetorical theory, creative writing and composition, technical writing, film, and visual media. English: Creative Writing Emphasis focuses on writing in fiction, drama, poetry, and in nonfiction prose, and it is complemented by courses in language and literature. (For those interested in teaching English Language Arts at the secondary level, see the English Literature Emphasis major.)

The Department of English provides a dynamic intellectual environment and learning community. Faculty members introduce new genres, fields and methods of critical inquiry, and technologies to provide our students with the best possible education. The department offers small, student-centered classes, innovative pedagogy, and close faculty-student interaction. English faculty members have earned numerous awards for excellence in teaching, research, and writing; they are nationally and internationally recognized in creative and critical fields. Our students have amassed an enviable record of placement in graduate programs and professional positions.

## Faculty

**MARC GEISLER** (1992) Chair and Associate Professor. BA, Bates College; MA, PhD, University of California-Irvine.

**KAVEH ASKARI** (2007) Associate Professor. BA, New College of Florida; MA, PhD, University of Chicago.

**BRUCE BEASLEY** (1992) Professor. BA, Oberlin College; MFA, Columbia University; MA, PhD, University of Virginia.

**NICOLE BROWN** (2002) Associate Professor. BS, BA, Salve Regina University; MA, Carnegie Mellon University; PhD, Purdue University.

**JEREMY CUSHMAN** (2013) Assistant Professor. BA, Whitworth University; MA, University of Illinois at Chicago; PhD, Purdue University.

**OLIVER DE LA PAZ** (2005) Associate Professor. BA, BS, Loyola Marymount University; MFA, Arizona State University.

**KRISTIN DENHAM** (2000) Professor. BA, Swarthmore College; MA, University of Arizona; PhD, University of Washington.

**DAWN DIETRICH** (1992) Associate Professor. BA, Eastern Michigan University; MA, PhD, University of Michigan.

**ALLISON GIFFEN** (2001) Associate Professor. BA, Barnard College; MA, Yale University; PhD, Columbia University.

**BRUCE GOEBEL** (1996) Professor. BA, Eastern Washington University; MA, California State University, Fresno; PhD, The University of Iowa.

**CAROL GUESS** (1998) Professor. BA, Columbia University; MA, MFA, Indiana University.

**NANCY J. JOHNSON** (1994), Professor. BA, University of Washington; MA, PhD, Michigan State University.

**KRISTIANA KAHAKAUWILA** (2012) Assistant Professor, BA, Princeton University; MFA, University of Michigan.

**LAURA LAFFRADO** (1993) Professor. AB, Vassar College; MFA, University of Montana; MA, PhD, State University of New York-Buffalo.

**CHRISTOPHER LOAR** (2013) Assistant Professor. BA, University of Chicago; MA, University of California, Los

## ENGLISH

Angeles; PhD, University of California, Los Angeles.

**ANNE LOBECK** (1990) Professor. BA, Whitman College; MA, PhD, University of Washington.

**KATHLEEN LUNDEEN** (1991) Professor. BA, MA, PhD, University of California-Santa Barbara.

**WILLIAM LYNE** (1995) Professor. BA, University of California, Los Angeles; MA, PhD, University of Virginia.

**KELLY MAGEE** (2008) Assistant Professor. BA, Auburn University; MFA, Ohio State University.

**KRISTIN MAHONEY** (2007) Associate Professor. BA, New College of Florida; MA, PhD, University of Notre Dame.

**MARY JANELL METZGER** (1995) Professor. BA, University of Washington; MA, PhD, University of Iowa.

**BRENDA MILLER** (1999) Professor. BA, Humboldt State University; MFA, University of Montana; PhD, University of Utah.

**SUZANNE PAOLA** (1994) Professor. BA, Oberlin College; MFA, University of Virginia.

**JOHN PURDY** (1991) Professor. BA, Oregon College of Education (Western Oregon University); MA, University of Idaho; PhD, Arizona State University.

**DONNA QUALLEY** (1994) Professor. BA, University of Kentucky; MST, PhD, University of New Hampshire.

**LYSA RIVERA** (2007) Associate Professor. BA, University of California-Santa Cruz; MA, PhD, University of Washington.

**KATHRYN TRUEBLOOD** (2002) Associate Professor. BA, University of California-Berkeley; MFA, University of Washington.

**STEVEN VANDERSTAAY** (1996) Vice Provost for Undergraduate Education and Professor. BA, MA, University of Washington; PhD, University of Iowa.

**KATHRYN VULIC** (2004), Associate Professor. AB, Ohio State University; MA, PhD, University of California, Berkeley.

**CHRISTOPHER WISE** (1996) Professor. BA, Northwestern College; MA, University of Oklahoma; PhD, University of California, Riverside.

**NING YU** (1993) Associate Professor. BA, Beijing University of Aeronautics and Astronautics; MA, PhD, University of Connecticut.

### Declaration Process

The department offers majors leading to both Bachelor of Arts and Bachelor of Arts in Education degrees.

Admission to these majors is by application to the appropriate advisor. Students are strongly urged to meet with a department advisor early in their careers at Western; students must declare their major at the start of their junior year. Though we cannot guarantee immediate enrollment in the major or access to any specific class, we matriculate students into the major on a rolling basis as space is available and offer a wide variety of topics each term.

### Other Departmental Information

#### *Mid-Program Checkpoint*

Students seeking to complete a BA degree program in English, with an emphasis in literature, creative writing, secondary education, or elementary education within a four-year time span should have completed the following courses by the start of their junior year:

- ENG 101 and ENG 202

#### *Additional Program Areas*

Along with a wide range of courses in literature, creative writing, and secondary and elementary education, the English department offers courses that provide training in linguistics, rhetoric, technical writing, and film.

#### **Linguistics**

- ☐ ENG 270 Introduction to Language and Society
- ☐ ENG 370 Introduction to Language

- ENG 436 The Structure of Language
- ENG 438 Cultural History of English
- ENG 439 Topics in Language and Linguistics

### ***Rhetoric and Composition***

- ENG 100 Introduction to College Writing
- ENG 101 Writing and Critical Inquiry
- ENG 201 Writing in the Humanities
- ENG 202 Writing About Literature
- ENG 301 Introduction to Writing Studies
- ENG 371 Introduction to Rhetoric and Rhetorical Analysis
- ENG 401 Senior Seminar in Writing Studies and Rhetoric

### ***Technical and Professional Communications***

- ENG 302 Introduction to Technical and Professional Writing
- ENG 402 Advanced Technical and Professional Writing
- ENG 461 Internship in English: Professional Identity
- ENG 462 Topics in Professional and Technical Writing

### ***Visual Literacy***

- ENG 312 Film and Culture
- ENG 364 Introduction to Film Studies
- ENG 408 Cultural Studies
- ENG 464 Topics in Film Studies

## **Graduate Study**

For a concentration leading to the Master of Arts degree, see the *Graduate School* section of this catalog.

# **Bachelor of Arts**

## **English — Creative Writing Emphasis, BA**

Department of English, College of Humanities and Social Sciences

### **58-60 Credits**

#### **Introduction/What is the Study of English?**

English is one of the central liberal arts degrees. A background in English provides graduates with a sound basis for pursuing a variety of careers, including law, business, education, publishing and government, as well as graduate work in creative writing, language, literary and cultural studies, and writing. English engages students in diverse literary heritages as well as fosters the development of sophisticated abilities in critical analysis, creative inquiry, reflective reading, and effective communication and expression.

#### **Why Consider a Creative Writing Emphasis in the English Major?**

The Creative Writing program focuses on writing courses: creative writing in fiction, drama, poetry, or nonfiction prose and includes coursework in literature to supplement the writing courses. Students in the upper-divisional courses are expected to interpret and analyze literature in thoughtful, organized, and clear essays that are free of mechanical errors. If you think you need help with your reading and writing, we



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strongly encourage you, in addition to your work in English courses, to consult the Writing Center and other University resources.

Introductory and advanced genre courses form the core of the major, giving students an opportunity to develop their craft and aesthetics through intensive writing, reading and workshops. Students must take courses in at least two different genres. Aside from the core courses, creative writing majors take 25 credits in literature (which may include literary/cultural theory and film studies) at the 300- or 400-level. Special modes courses (456, 457, 458, 460) introduce advanced students to distinct forms within their major genres.

### Contact Information

#### Undergraduate Program Coordinator

Linda Flanagan  
Humanities 327  
360-650-3209  
Linda.Flanagan@wwu.edu

#### English Creative Writing Advisor

Kelly Magee  
Humanities 371  
360-650-2650  
Kelly.Magee@wwu.edu

### Sample Careers

Education | Business Law | Author | Government | Editing and Publishing | Graduate work in Creative Writing

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Meet with English Department's Undergraduate Program Coordinator to declare this major. The prerequisites for declaring the major are 75 credits completed and ENG 202.

To declare the major, contact the Undergraduate Program Coordinator, Linda Flanagan. Though the English department cannot guarantee immediate enrollment in the major or access to any specific class, we matriculate students into the major on a rolling basis as space is available and offer a wide variety of topics each term.

Advising Tips: Students are strongly encouraged to meet with the Undergraduate Program Coordinator, Linda Flanagan, early in their careers at Western. Students must declare their major by the start of their junior year.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- 25 credits in literature (which may include literary/cultural theory and film studies) at the 300- or 400-level, including a minimum of three writing proficiency points in approved upper-division writing proficiency courses at WWU with a minimum grade of C-.
- ENG 370 - Introduction to Language (Students who earn a grade of 3.0 or better in Linguistics 201 may substitute a 300 or 400-level English course under advisement for English 370.)
- Two courses from:
  - ENG 351 - Introduction to Fiction Writing
  - ENG 353 - Introduction to Poetry Writing
  - ENG 354 - Introduction to Creative Nonfiction Writing
  - THTR 384 - Introduction to Dramatic Writing
  - FAIR 354V - Scriptwriting Workshop I
- Four courses from:
  - ENG 451 - Creative Writing Seminar - Fiction \*
  - ENG 453 - Creative Writing Seminar - Poetry \*

- ENG 454 - Creative Writing Seminar - Creative Nonfiction \*
- ENG 455 - Living Writers
- ENG 456 - Special Topics in Fiction Writing
- ENG 457 - Special Topics in Poetry Writing
- ENG 458 - Special Topics in Creative Nonfiction Writing
- ENG 459 - Editing and Publishing
- ENG 460 - Special Topics In Creative Writing - Multi-Genre
- THTR 485 - Dramatic Writing Workshop \*\*
- FAIR 454Y - Scriptwriting Workshop II

Creative writing courses offered by Canadian-American Studies may also be counted with approval of the English department advisor

*\*One of these courses is repeatable with a different instructor to a maximum of 10 credits.*

*\*\* May be repeated under separate topics to a maximum of 12 credits.*

## English — Literature Emphasis, BA

Department of English, College of Humanities and Social Sciences

### 60 Credits

#### Introduction/What is the Study of English?

English is one of the central liberal arts degrees. A background in English provides graduates with a sound basis for pursuing a variety of careers including law, business, education, publishing and government, as well as graduate work in language, literary and cultural studies, and writing. English engages students in diverse literary heritages, as well as fosters the development of sophisticated abilities in critical analysis, creative inquiry, reflective reading, and effective communication and expression.

#### Why Consider a Literature Emphasis in the English Major?

The English Literature major focuses on the study of literatures in historical and cultural contexts and includes course work in English language, literary theory, and composition and rhetoric. Some students may opt to develop a writing concentration within their literature major, taking writing courses such as composition, creative writing, and professional and technical writing. There are also opportunities to pursue English Education, including endorsements. Students in the upper-division courses are expected to interpret and analyze literature in thoughtful, organized, and clear essays that are free of mechanical errors. If you think you need help with your reading and writing, we strongly encourage you, in addition to your work in English courses, to consult the Writing Center and other university resources.

The literature emphasis offers students the opportunity for both breadth and depth in the study of literature and culture. In the "Literature and Culture" courses (ENG 307-311), which are the core of the major, students gain a sense of historical scope as they explore literatures from a range of periods. In addition, majors take required courses in critical and cultural theory, writing and the history and theory of language. All of these courses provide a solid foundation for intensive study of specialized topics in the upper-level electives and in the senior seminar.

The English – Literature Emphasis, BA major leads to a baccalaureate degree without teacher certification. To receive a recommendation for state of Washington teacher certification, students must also complete the teacher certification program offered by the Department of Secondary Education as one of the following:

- A part of the undergraduate baccalaureate degree
- A post-baccalaureate program
- A part of the Master in Teaching program

See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements. Students seeking teaching certification are advised that the careful selection of

## ENGLISH

English courses within the English-Literature major and the addition of one 5-credit English course are necessary in order to meet requirements for the English Language Arts – Secondary endorsement. Students must meet with the secondary education academic advisor in the English department to complete a plan of study.

### Contact Information

#### Undergraduate Program Coordinator

Linda Flanagan  
Humanities 327  
360-650-3209  
Linda.Flanagan@wwu.edu

#### English Literature Advisor

Mary Janell Metzger  
Humanities 381  
360-650-3238  
Mary.Metzger@wwu.edu

### Sample Careers

Law | Business (including public relations, sales and marketing) | Education (teaching or administrating) | Author, broadcaster, artist, entertainer | Government | Editing and Publishing | Graduate work in Literature and Creative Writing | Graduate work in Composition and Language

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Meet with the English Department's Undergraduate Program Coordinator to declare this major. Prerequisites for declaring the major are 75 credits completed and ENG 202.

To declare the major, contact the Undergraduate Program Coordinator, Linda Flanagan. Though the English department cannot guarantee immediate enrollment in the major or access to any specific class, we matriculate students into the major on a rolling basis as space is available and offer a wide variety of topics each term.

**Advising Tips:** Students are strongly encouraged to meet with the Undergraduate Program Coordinator, Linda Flanagan, early in their careers at Western. Students must declare their major by the start of their junior year.

### English Language Arts - Secondary Endorsement:

Students seeking teacher certification are advised that the careful selection of English courses within the English Literature major and the addition of one 5 credit English course are necessary in order to meet requirements for the English Language Arts—Secondary endorsement. Students must meet with the secondary education academic advisor in the English department, Nancy Johnson (HU 351, 360-650-3227), to complete a plan of study.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

### Requirements

#### Four courses from:

- ENG 307 - Literature and Culture I: Pre-16th Century
- ENG 308 - Literature and Culture II: 16th and 17th Centuries
- ENG 309 - Literature and Culture III: 18th and 19th Centuries
- ENG 310 - Literature and Culture IV: 19th and 20th Centuries
- ENG 311 - Literature and Culture V: 20th and 21st Centuries

#### One course from:

- ENG 301 - Introduction to Writing Studies

- ENG 302 - Introduction to Technical and Professional Writing
- ENG 350 - Introduction to Creative Writing
- ENG 401 - Senior Seminar in Writing Studies and Rhetoric
- ENG 313 - History of Critical and Cultural Theory
- ENG 418 - Senior Seminar
- ENG 370 - Introduction to Language  
(Students who earn a grade of 3.0 or better in Linguistics 201 may substitute a 300 or 400-level English course under advisement for English 370.)
- Electives: 20 credits. 15 credits must be at the 400 level, 5 credits at either the 300 or 400 level

## Additional Endorsement

### English Language Arts - Secondary, Additional Endorsement

Department of English, College of Humanities and Social Sciences

#### 40 credits

#### Introduction/What is the Study of English Language Arts?

This additional endorsement program prepares students to teach English Language Arts at the middle and high school, and must be accompanied by a professional education program and a qualifying endorsement in another content area. See the Elementary Education and Secondary Education sections of this catalog for program admission, completion, and teacher certification requirements.

#### Why Consider a Secondary, Additional Endorsement in English Language Arts?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

No more than 10 credits may be completed through distance learning. Each course must be completed with a grade of C (2.0) or better. A passing score on the English Language Arts WEST-E test is required by the state.

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- ENG 347 - Studies in Young Adult Literature
- ENG 370 - Introduction to Language
- ENG 436 - The Structure of English
- Two courses from:
  - ENG 301 - Introduction to Writing Studies

## ENGLISH

- ENG 302 - Introduction to Technical and Professional Writing
- ENG 350 - Introduction to Creative Writing
- One course from:
  - ENG 307 - Literature and Culture I: Pre-16th Century
  - ENG 308 - Literature and Culture II: 16th and 17th Centuries
  - ENG 309 - Literature and Culture III: 18th and 19th Centuries
  - ENG 310 - Literature and Culture IV: 19th and 20th Centuries
  - ENG 311 - Literature and Culture V: 20th and 21st Centuries
- Pedagogy Courses
  - ENG 443 - Teaching English Language Arts in the Secondary Schools I
  - ENG 444 - Teaching English Language Arts in the Secondary Schools II

## Master of Arts

### English, English Studies, Non-Thesis, MA

*College of Humanities and Social Sciences*

#### Graduate Faculty

**Askari, Kaveh**, PhD, film history and theory, cross-media visual culture, global cinema.

**Beasley, Bruce**, PhD, creative writing (poetry), American literature.

**Brown, Nicole**, PhD, rhetoric and composition, technical writing, visual rhetoric, service learning and cybercultural studies.

**Cushman, Jeremy**, PhD, rhetoric and composition, workplace writing, public rhetorics, digital humanities and postmodern research methodologies.

**de la Paz, Oliver**, MFA, creative writing (poetry), Asian-American literature.

**Denham, Kristin**, PhD, linguistics, syntax and grammar, dialect, Native American languages and literatures.

**Dietrich, Dawn**, PhD, cinema studies, literature and technology, cyberculture, critical theory.

**Geisler, Marc**, PhD, Renaissance literature and culture, literary theory, politics and literature.

**Giffen, Allison**, PhD, American literature, women's literature.

**Goebel, Bruce**, PhD, American literature, postmodern literature, English education.

**Guess, Carol**, MFA, creative writing (creative nonfiction, fiction, poetry), gay/lesbian/bisexual/transgender literature and theory.

**Johnson, Nancy J.**, PhD, children's literature, English/language arts education.

**Kahakauwila, Kristiana**, MFA, creative writing (fiction and non-fiction), editing and publishing, Pacific Literature

**Laffrado, Laura**, PhD, American literature, gender studies.

**Loar, Christopher**, PhD, British literature, early American literature, eighteenth-century culture, critical theory, literature and science.

**Lobeck, Anne**, PhD, linguistics, literary theory, gender studies.

**Lundeen, Kathleen**, PhD, British literature, critical theory, intermedial art, literature and science, prophetic literature.

**Lyne, William**, PhD, American literature, African-American literature, cultural studies.

**Magee, Kelly**, MFA, creative writing (fiction, nonfiction, multi-genre).

**Mahoney, Kristin**, PhD, Victorian literature and culture, economics and literature.

**Metzger, Mary Janell**, PhD, early modern literature, critical theory, English education, women's literature.

**Miller, Brenda**, PhD, creative writing (fiction and nonfiction), autobiography.

**Paola, Suzanne**, MFA, creative writing, nonfiction, women's studies, poetry.

**Purdy, John Lloyd**, PhD, contemporary American literature, Native American literatures, Canadian and New Zealand literatures.

**Qualley, Donna**, PhD, composition theory and pedagogy, literacy, rhetoric and social class.

**Rivera, Lysa**, PhD, American literatures and culture, Chicana/o and African-American literature, cultural studies, critical theory.

**Trueblood, Kathryn**, MFA, creative writing (fiction), publishing and editing.

**Wise, Christopher**, PhD, comparative literature and critical theory.

**VanderStaay, Steven**, PhD, English education, creative writing (nonfiction), and linguistics.

**Vulic, Kathryn**, PhD, medieval British and Continental literatures and culture, devotional literature.

**Yu, Ning**, PhD, American literatures, science and literature.

Program Advisor: Graduate Program Office, Humanities 325, 360-650-3232

## Goals

The MA program in English is designed for those who desire to prepare for:

- PhD and MFA programs, as well as other advanced degrees
- Teaching at two-year colleges
- Public or private teaching (elementary, middle, secondary)
- Careers in technical writing and communication
- Careers in editing and publishing
- Careers in nonprofit and other business organizations

Depending on the chosen area of concentration, students will attain the following skills:

- Preparation in national and global literatures and cultures, creative writing, critical and cultural theory, film and media, pedagogy, composition and rhetoric, technical writing, professional writing, editing and publishing, and linguistics
- Teaching experience (if awarded a teaching assistantship or internship)
- Professional editing with scholarly and creative writing journals, such as the *Bellingham Review*
- Professional communication, oral and written
- Competency in the use of classroom and communications technologies
- Awareness of diversity, educational equity, and social justice issues
- Awareness of ethical and reflective pedagogical practices

The MA program in English offers two concentrations: 1) English studies and 2) creative writing.

## Prerequisites

Undergraduate major in English or departmental permission. Candidates with an insufficient background in English are normally requested to acquire 30 upper-division credits in literature and criticism with a grade of B or better in each course. The department reserves the right to approve a course of study.

## Admission

Enrollment is limited to program capacity.

## Application Information

**Deadlines:** Applications for the following academic year must be complete — all materials on file — by January 15 for priority consideration. Applications completed after that date may be considered on a space-available basis. Applications completed after June 1 will not be considered. Admission into the program is for fall quarter.

**TA Deadlines:** An application for a teaching assistantship should be submitted with the application for admission.

### Supporting Materials:

- Normally the department expects a strong analytic score on the GRE, and a verbal score of at least 500 on the GRE (General) exams taken before August 2011, or a verbal score of at least 153 on GRE

## ENGLISH

("Revised" General) exams taken before August 2011. Candidates must also provide a 750-word personal statement of background and intention and a writing sample: for admission to creative writing, 10 to 15 pages of prose or 10 to 15 pages of poetry; for admission to English studies, 7 to 12 pages of written work in literary study.

English Studies, Non-Thesis (48 credits)

### **Core Requirements:**

- ENG 501 - Literary Theories and Practices
  - 25 credits in literature, criticism, rhetoric OR
- ENG 513 - Seminar in Teaching College Composition
  - Only five of these 25 credits may be taken in English 500, Independent Study.

### **Electives:**

18 credits (literature, criticism, creative writing, rhetoric, pedagogy, English language) Occasionally electives in other departments may be chosen in consultation and with permission of the English department graduate program advisor.

### **Credits:**

With the permission of the graduate advisor, a student may take up to 10 credits of some combination of 400-level courses, ENG 500, ENG 509, and ENG 594. No more than 5 credits of ENG 500 may be applied toward the degree.

Additional Information

## **Other Requirements**

Students must demonstrate reading competence in a second language acceptable to the department's Graduate Studies Committee or take an additional 5-credit 400 or 500-level course focused on the study of language. Normally competence in a second language is demonstrated by successfully completing the final course in a second-year language sequence or by passing a reading competency exam in the language. Students must also pass a written Graduate Exam in their concentration.

Additional information about these requirements, the thesis option and program procedures, is available from the English graduate program office.

## **English, English Studies, Thesis, MA**

*College of Humanities and Social Sciences*

### **Graduate Faculty**

**Askari, Kaveh**, PhD, film history and theory, cross-media visual culture, global cinema.

**Beasley, Bruce**, PhD, creative writing (poetry), American literature.

**Brown, Nicole**, PhD, rhetoric and composition, technical writing, visual rhetoric, service learning and cybercultural studies.

**Cushman, Jeremy**, PhD, rhetoric and composition, workplace writing, public rhetorics, digital humanities and postmodern research methodologies.

**de la Paz, Oliver**, MFA, creative writing (poetry), Asian-American literature.

**Denham, Kristin**, PhD, linguistics, syntax and grammar, dialect, Native American languages and literatures.

**Dietrich, Dawn**, PhD, cinema studies, literature and technology, cyberculture, critical theory.

**Geisler, Marc**, PhD, Renaissance literature and culture, literary theory, politics and literature.

**Giffen, Allison**, PhD, American literature, women's literature.

**Goebel, Bruce**, PhD, American literature, postmodern literature, English education.

**Guess, Carol**, MFA, creative writing (creative nonfiction, fiction, poetry), gay/lesbian/bisexual/transgender literature and theory.

**Johnson, Nancy J.**, PhD, children's literature, English/language arts education.

**Kahakauwila, Kristiana**, MFA, creative writing (fiction and non-fiction), editing and publishing, Pacific literature

**Laffrado, Laura**, PhD, American literature, gender studies.

**Loar, Christopher**, PhD, British literature, early American literature, eighteenth-century culture, critical theory, literature and science.

**Lobeck, Anne**, PhD, linguistics, literary theory, gender studies.

**Lundeen, Kathleen**, PhD, British literature, critical theory, intermedial art, literature and science, prophetic literature.

**Lyne, William**, PhD, American literature, African-American literature, cultural studies.

**Magee, Kelly**, MFA, creative writing (fiction, nonfiction, multi-genre).

**Mahoney, Kristin**, PhD, Victorian literature and culture, economics and literature.

**Metzger, Mary Janell**, PhD, early modern literature, critical theory, English education, women's literature.

**Miller, Brenda**, PhD, creative writing (fiction and nonfiction), autobiography.

**Paola, Suzanne**, MFA, creative writing, nonfiction, women's studies, poetry.

**Purdy, John Lloyd**, PhD, contemporary American literature, Native American literatures, Canadian and New Zealand literatures.

**Qualley, Donna**, PhD, composition theory and pedagogy, literacy, rhetoric and social class.

**Rivera, Lysa**, PhD, American literatures and culture, Chicana/o and African-American literature, cultural studies, critical theory.

**Trueblood, Kathryn**, MFA, creative writing (fiction), publishing and editing.

**Wise, Christopher**, PhD, comparative literature and critical theory.

**VanderStaay, Steven**, PhD, English education, creative writing (nonfiction), and linguistics.

**Vulic, Kathryn**, PhD, medieval British and Continental literatures and culture, devotional literature.

**Yu, Ning**, PhD, American literatures, science and literature.

Program Advisor: Graduate Program Office, Humanities 325, 360-650-3232

## Goals

The MA program in English is designed for those who desire to prepare for:

- PhD and MFA programs, as well as other advanced degrees
- Teaching at two-year colleges
- Public or private teaching (elementary, middle, secondary)
- Careers in technical writing and communication
- Careers in editing and publishing
- Careers in nonprofit and other business organizations

Depending on the chosen area of concentration, students will attain the following skills:

- Preparation in national and global literatures and cultures, creative writing, critical and cultural theory, film and media, pedagogy, composition and rhetoric, technical writing, professional writing, editing and publishing, and linguistics
- Teaching experience (if awarded a teaching assistantship or internship)
- Professional editing with scholarly and creative writing journals, such as the *Bellingham Review*
- Professional communication, oral and written
- Competency in the use of classroom and communications technologies
- Awareness of diversity, educational equity, and social justice issues
- Awareness of ethical and reflective pedagogical practices



# ENGLISH

## Prerequisites

Undergraduate major in English or departmental permission. Candidates with an insufficient background in English are normally requested to acquire 30 upper-division credits in literature and criticism with a grade of B or better in each course. The department reserves the right to approve a course of study.

## Admission

Enrollment is limited to program capacity.

## Application Information

**Deadlines:** Applications for the following academic year must be complete — all materials on file — by January 15 for priority consideration. Applications completed after that date may be considered on a space-available basis. Applications completed after June 1 will not be considered. Admission into the program is for fall quarter.

**TA Deadlines:** An application for a teaching assistantship should be submitted with the application for admission.

## Supporting Materials:

- Normally the department expects a strong analytic score on the GRE, and a verbal score of at least 500 on the GRE (General) exams taken before August 2011, or a verbal score of at least 153 on GRE ("Revised" General) exams taken before August 2011. Candidates must also provide a 750-word personal statement of background and intention and a writing sample: for admission to creative writing, 10 to 15 pages of prose or 10 to 15 pages of poetry; for admission to English studies, 7 to 12 pages of written work in literary study.

English Studies, Thesis (45 credits)

### Core Requirements:

- □ ENG 501 - Literary Theories and Practices
- 25 credits in literature, criticism, rhetoric OR
- ENG 513 - Seminar in Teaching College Composition (for Teaching Assistants)  
Only five of these 25 credits may be taken in English 500, Independent Study.

### Electives:

- 10 credits in literature, criticism, creative writing, rhetoric, pedagogy, or English language. Occasionally electives in other departments may be chosen in consultation and with permission of the English department graduate program advisor.

### Credits:

With the permission of the graduate advisor, a student may take up to 10 credits of some combination of 400-level courses, ENG 500, ENG 509, and ENG 594. No more than 5 credits of ENG 500 may be applied toward the degree.

### Thesis:

- □ ENG 690 - Thesis Writing (5 credits)

Additional Information

## Other Requirements

Students in both concentrations (English Studies and Creative Writing) must demonstrate reading competence in a second language acceptable to the department's Graduate Studies Committee or take an additional 5-credit 400 or 500-level course focused on the study of language. Normally competence in a second language is demonstrated by successfully completing the final course in a second-year language sequence or by passing a reading competency exam in the language.

Students must also pass a Graduate Exam in their concentration.

Additional information about these requirements, the thesis option and program procedures, is available from the English graduate program office.

## Master of Fine Arts

### Creative Writing, MFA

#### 55 Credits

#### Graduate Faculty

**Askari, Kaveh**, PhD, film history and theory, cross-media visual culture, global cinema.

**Beasley, Bruce**, PhD, creative writing (poetry), American literature.

**Brown, Nicole**, PhD, rhetoric and composition, technical writing, visual rhetoric, service learning and cybercultural studies.

**Cushman, Jeremy**, PhD, rhetoric and composition, workplace writing, public rhetorics, digital humanities and postmodern research methodologies.

**de la Paz, Oliver**, MFA, creative writing (poetry), Asian-American literature.

**Denham, Kristin**, PhD, linguistics, syntax and grammar, dialect, Native American languages and literatures.

**Dietrich, Dawn**, PhD, cinema studies, literature and technology, cyberculture, critical theory.

**Geisler, Marc**, PhD, Renaissance literature and culture, literary theory, politics and literature.

**Giffen, Allison**, PhD, American literature, women's literature.

**Goebel, Bruce**, PhD, American literature, postmodern literature, English education.

**Guess, Carol**, MFA, creative writing (creative nonfiction, fiction, poetry), gay/lesbian/bisexual/transgender literature and theory.

**Johnson, Nancy J.**, PhD, children's literature, English/language arts education.

**Kahakauwila, Kristiana**, MFA, creative writing (fiction and non-fiction), editing and publishing, Pacific literature

**Laffrado, Laura**, PhD, American literature, gender studies.

**Loar, Christopher**, PhD, British literature, early American literature, eighteenth-century culture, critical theory, literature and science.

**Lobeck, Anne**, PhD, linguistics, literary theory, gender studies.

**Lundeen, Kathleen**, PhD, British literature, critical theory, intermedial art, literature and science, prophetic literature.

**Lyne, William**, PhD, American literature, African-American literature, cultural studies.

**Magee, Kelly**, MFA, creative writing (fiction, nonfiction, multi-genre).

**Mahoney, Kristin**, PhD, Victorian literature and culture, economics and literature.

**Metzger, Mary Janell**, PhD, early modern literature, critical theory, English education, women's literature.

**Miller, Brenda**, PhD, creative writing (fiction and nonfiction), autobiography.

**Paola, Suzanne**, MFA, creative writing, nonfiction, women's studies, poetry.

**Purdy, John Lloyd**, PhD, contemporary American literature, Native American literatures, Canadian and New Zealand literatures.

**Qualley, Donna**, PhD, composition theory and pedagogy, literacy, rhetoric and social class.

**Rivera, Lysa**, PhD, American literatures and culture, Chicana/o and African-American literature, cultural studies, critical theory.

**Trueblood, Kathryn**, MFA, creative writing (fiction), publishing and editing.

**Wise, Christopher**, PhD, comparative literature and critical theory.

**VanderStaay, Steven**, PhD, English education, creative writing (nonfiction), and linguistics.

**Vulic, Kathryn**, PhD, medieval British and Continental literatures and culture, devotional literature.

**Yu, Ning**, PhD, American literatures, science and literature.

Program Advisor: Graduate Program Office, Humanities 325, 360-650-3232

## Introduction

Western Washington University's English Department offers a 2-year MFA program in Creative Writing within a community that values creative development and intellectual versatility. We encourage a focus on multigenre or cross-genre writing, based on our view that creative writing graduates need to be versatile in their comprehension of genre conventions and conversant in the way diverse genres inform one another. A variety of courses we offer stress either a multigenre focus or encourage experimental works that blur genre boundaries.

Creative writing practice and literary study are synergistic in our program. Students take seminars in creative writing and literature, as well as courses in rhetorical thinking and composition, digital and technical writing, film studies, and linguistics. We offer Graduate Assistantships that provide quality teacher training, as well as opportunities to gain editorial experience with the award-winning journal *Bellingham Review*.

## Goals

The MFA program in English is designed for those who desire to prepare for:

- Life as a serious author, with an understanding of the literary marketplace and publication
- PhD programs, as well as other advanced degrees in fields such as law or teaching
- Teaching at both two- and four-year colleges and universities
- Public or private teaching (elementary, middle, secondary)
- Careers in technical writing and communication
- Careers in editing and publishing
- Careers in nonprofit and other business organizations

Students will attain the following skills:

- Fluency in multigenre or cross-genre writing and comprehension of genre conventions, as well as the way diverse genres can inform one another
- Professionalism in creative writing, along with in-depth literary study in areas that might include national and global literatures and cultures, critical and cultural theory, film and media, pedagogy, composition and rhetoric, technical writing, professional writing, editing and publishing, and linguistics
- Teaching experience (if awarded a teaching assistantship or internship)
- Professional editing with scholarly and creative writing journals, such as the *Bellingham Review*
- Professional communication, oral and written
- Competency in the use of classroom and communications technologies
- Awareness of diversity, educational equity, and social justice issues
- Awareness of ethical and reflective pedagogical practices

## Prerequisites

Undergraduate major in English or Creative Writing, or departmental permission. Candidates with an insufficient background in English are normally requested to acquire 30 upper-division credits in creative writing, literature, and/or criticism with a grade of B or better in each course. The department reserves the right to approve a course of study.

## Application Information

**Deadlines:** Applications for the following academic year must be complete — all materials on file — by January 15 for priority consideration. Applications completed after that date may be considered on a space-available basis. Applications completed after June 1 will not be considered. Admission into the program is for fall quarter.

**Teaching Assistantship Deadlines:** An application for a Teaching Assistantship should be submitted with the application for admission.

The materials submitted for admission must include:

- A statement of purpose: this statement should explain intellectual and/or creative interests, and professional goals. If you are interested in being considered for a funded Teaching Assistantship, please include relevant experience and information that will aid the department in making funding decisions.
- Two writing samples. Creative Writing: 10 to 15 pages of prose (fiction or creative nonfiction); or 10 to 15 pages of poetry; or a combination of genres, 15 pages total; AND a Critical writing sample: 7 to 12 pages of analytical work in literary study.
- Appropriate admissions forms.
- GRE scores (General Test) with a minimum score of 500 on the verbal section, for exams taken before August 2011. For the GRE 'Revised' General Test (beginning August 2011), the expected verbal score on the new scale is at least 153.

### Program Requirements

- ENG 501 - Literary Theories and Practices
  - 20 credits in creative writing courses, to be taken in at least two different genres from the following:
    - ENG 502 - Seminar in the Writing of Fiction
    - ENG 504 - Seminar in the Writing of Poetry
    - ENG 505 - Seminar in the Writing of Nonfiction
    - ENG 506 - Seminar in Creative Writing: Multigenre
    - ENG 520 - Studies in Poetry \*
    - ENG 525 - Studies in Fiction \*
    - ENG 535 - Studies in Nonfiction \*

\*These courses may be taken as either creative writing or literature credits, depending on the nature of the final project. To use them as part of the creative writing core requirement, students must take them as creative writing courses.
  - 20 credits in literature, composition/rhetoric, pedagogy, or critical theory, to be taken from the following:
    - ENG 500 - Directed Independent Study
    - ENG 509 - Internship in Writing, Editing and Production
    - ENG 510 - Seminar: Topics in Rhetoric
    - ENG 513 - Seminar in Teaching College Composition (required for Graduate Teaching Assistants in the Freshman Composition program)
    - ENG 515 - Studies in Literary and Critical Theory
    - ENG 540 - Studies in Global Literatures
    - ENG 550 - Studies in American Literatures
    - ENG 560 - Studies in British Literature
    - ENG 570 - Topics in Cultural Studies
    - ENG 575 - Studies in Women's Literature
    - ENG 580 - Studies in Film
    - ENG 594 - Practicum in Teaching
    - ENG 598 - Research in the Teaching of English

ENG 520, 525, and 535 (see creative writing courses) may also be used for literature credit, depending on the nature of the final project. The same course may not be used for both literature and creative writing credit.
- ENG 690 - Thesis Writing

**NOTE:** A student may, with permission, take up to 5 credits in approved 400-level courses. A student may have only 10 credits TOTAL of 400-level and/or 500 (Independent Study) credits. Students are encouraged to fill out their two years of study with electives that stress creative writing, pedagogy, editing/publishing, literature, or rhetoric, as dictated by the student's interests and career goals.

Additional Requirements:

1. Fulfillment of the English Graduate Program Language Requirement
2. Successful completion of the Creative Writing Graduate Exam
3. A successful creative thesis, with a critical preface, approved by the student's Creative Writing Thesis Committee and the Graduate School

## Minor

### Creative Writing Minor

Department of English, College of Humanities and Social Sciences

#### 25 Credits

#### Introduction/What is the Study of Creative Writing?

Courses taken for credit in minor programs may not be counted toward English majors.

#### Why Consider a Creative Writing Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Meet with the English Department's Undergraduate Program Coordinator to declare this minor.

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- Four creative writing courses including work in at least two genres
- An elective under advisement from the 300 and 400 level courses

### English Linguistics Minor

Department of English, College of Humanities and Social Sciences

#### 25 Credits

### **Introduction/What is the Study of Linguistics?**

Courses taken for credit in minor programs may not be counted toward English majors.

### **Why Consider a Linguistics Minor?**

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

Meet with English Department's Undergraduate Program Coordinator or the English Linguistics Minor advisor to declare this minor.

### **Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors

#### Requirements

- ENG 436 - The Structure of English
  - ENG 438 - Cultural History of English
  - ENG 439 - Topics in Language and Linguistics \*
    - Linguistics courses under advisement at the 300 and 400 level
- \* May be repeated once with a different topic.

### **English Minor**

Department of English, College of Humanities and Social Sciences

### **25 Credits**

### **Introduction/What is the Study of English?**

Courses taken for credit in minor programs may not be counted toward English majors.

### **Why Consider an English Minor?**

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

Meet with English Department's Undergraduate Program Coordinator to declare this minor.

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## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors

Requirements

- 25 credits of English at the 200 level or above, with a minimum of 15 credits at the 300 or 400 level

## Film Studies Minor

Department of English, College of Humanities and Social Sciences

### 23-25 Credits

#### Introduction/What is the Study of Film Studies?

Courses taken for credit in minor programs may not be counted toward English majors.

#### Why Consider a Film Studies Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Meet with the English Department's Undergraduate Program Coordinator or the Film Studies Minor Advisor to declare this minor.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

Requirements

- ENG 312 - Film and Culture \*
  - ENG 364 - Introduction to Film Studies
  - ENG 464 - Topics in Film Studies \*
    - Courses under advisement at the 300 and 400 level to be selected from courses in theory, film and other visual media, including offerings in other departments, such as HIST 364, FAIR 326, FAIR 361
- \*May be repeated once with a different topic.*

## Women's Literature Minor

Department of English, College of Humanities and Social Sciences

### 25 Credits

#### Introduction/What is the Study of Women's Literature?

Courses taken for credit in minor programs may not be counted toward English majors.

## Why Consider a Women's Literature Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Meet with the English Department's Undergraduate Program Coordinator to declare this minor.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

Requirements

- Courses under advisement at the 300 and 400 level, to be selected from courses in women writers, topics focused on the work of women writers, and topics in language and power of gender

## Writing Studies Minor

Department of English, College of Humanities and Social Sciences

### 25 Credits

### Introduction/What is the Study of Writing Studies?

Courses taken for credit in minor programs may not be counted toward English majors.

## Why Consider a Writing Studies Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Meet with the Writing Studies Minor Advisor to declare this minor

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

Requirements

- Two courses from:
  - ENG 301 - Introduction to Writing Studies



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- ENG 302 - Introduction to Technical and Professional Writing
  - ENG 371 - Introduction to Rhetoric and Rhetorical Analysis
  - One course from:
    - ENG 401 - Senior Seminar in Writing Studies and Rhetoric
    - ENG 402 - Advanced Technical and Professional Writing
    - ENG 442 - Studies in Literacy and Learning
    - ENG 461 - Internship in English: Professional Identity
    - ENG 462 - Topics in Professional and Technical Writing \*
  - Courses under advisement at the 300 and 400 level to be selected from courses in visual media and writing, including offerings in other departments.
- \*Repeatable once.

## English Courses

### **ENG 100 - Introduction to College Writing**

A writing course that offers practice in reading complex texts, writing with fluency and using the conventions of standard written English. Regularly scheduled conferences with instructor required. S/U grading.

Credits: 5  
Grade Mode: S/U

### **ENG 101 - Writing and Critical Inquiry**

A computer-mediated composition course designed to help students, through extended inquiry in reading, writing, and discussion, develop and practice those critical and reflective habits of mind that will serve them personally, academically, and professionally. Introduces students to the processes of analysis and revision with the aim of increasing students' knowledge and control of the specific conventions writers use to clearly formulate and communicate their ideas to different audiences. Regularly scheduled conferences with instructor required. Students needing to satisfy Block A of the communications section of the General University Requirements are required to do so prior to completion of 45 credits.

**Prerequisites & Notes:** may not be taken concurrent with ENG 100  
Credits: 5  
GUR Attributes: ACOM

### **ENG 195 - Introduction to Creative and Technical Writing**

An intensive introduction to creative and technical writing for entering freshmen.

Credits: 2  
Grade Mode: S/U

### **ENG 201 - Writing in Humanities**

Advanced instruction and practice in writing using ideas, texts and questions from a specified topic in the humanities. Areas and focus vary with section.

**Prerequisites & Notes:** ENG 101 or 4/5 AP English Language Exam or 710 on the SAT or 28 on the ACT.  
Credits: 5

### **ENG 202 - Writing About Literature**

A writing course designed to help students develop the skills of close reading and careful analysis of literary texts, with particular attention to how language, style, and form contribute to a text's social or political claims. Introduces students to the challenge of situating themselves in relation to a literary text and the critical conversation about that text, and crafting multi-draft critical essays with a focused, arguable thesis supported by thoughtful sequence of claims and carefully selected textual evidence.

**Prerequisites & Notes:** ENG 101 and sophomore or above status  
Credits: 5  
GUR Attributes: BCOM

### **ENG 214 - Introduction to Shakespeare**

Analysis, interpretation and discussion of a selected number of Shakespeare's plays: histories, comedies, tragedies and romances.

Credits: 5  
GUR Attributes: HUM

**ENG 215 - Introduction to British Literature**

Analysis, interpretation and discussion of a range of texts in British literature with attention to cultural contexts.

Credits: 5  
GUR Attributes: HUM

**ENG 216 - Introduction to American Literature**

Analysis, interpretation and discussion of a range of texts in American literature with attention to cultural contexts.

Credits: 5  
GUR Attributes: HUM

**ENG 227 - Introduction to Gay, Lesbian, Bisexual and Transgender Literature**

Analysis, interpretation and discussion of a range of texts by gay, lesbian, bisexual and transgendered authors.

Credits: 5  
GUR Attributes: BCGM

**ENG 234 - Introduction to African-American Literature**

Analysis, interpretation and discussion of written, spoken and visual texts by African-American men and women from the 18th century to the present.

Credits: 5  
GUR Attributes: BCGM

**ENG 235 - Introduction to American Indian Literatures**

Analysis, interpretation and discussion of written, spoken and visual texts in English and translation by writers and storytellers of Native American descent.

Credits: 5  
GUR Attributes: BCGM

**ENG 236 - Introduction to Asian-American Literatures**

Analysis, interpretation and discussion of written and visual texts in English and translation by and about Asian-Americans.

Credits: 5  
GUR Attributes: BCGM

**ENG 238 - Society Through Its Literature**

A thematic approach to literature, with different themes exploring the relationship between literary forms and society. Repeatable once as an elective with different topics. May be taken only once for GUR credit.

Credits: 5  
GUR Attributes: HUM

**ENG 239 - Introduction to Latina/o Literatures**

Analysis, interpretation and discussion of a range of texts in English and in translation by Latina/o authors.

Credits: 5  
GUR Attributes: BCGM

**ENG 270 - Introduction to Language and Society**

A thematic approach to the study of language use in society, with different themes exploring the relationship between language, meaning, and the social contexts in which they occur. May be taken only once for GUR credit.

Credits: 5  
GUR Attributes: HUM

**ENG 281 - Introduction to Global Literatures: Ancient**

Readings from ancient literatures throughout the world.

Credits: 5  
GUR Attributes: HUM

**ENG 282 - Introduction to Global Literatures: Medieval**

Readings from medieval literatures throughout the world.

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Credits: 5  
GUR Attributes: HUM

### **ENG 283 - Introduction to Global Literatures: Modern**

Readings from modern literatures throughout the world.

Credits: 5  
GUR Attributes: HUM

### **ENG 301 - Introduction to Writing Studies**

Inquiry and practice in the theory, ideology, and ethics of writing in private, public and academic contexts. Focuses on issues of genre, audience, and stylistic and discursive conventions of writing. Emphasis on expressive, analytical, critical, and collaborative forms of writing as appropriate.

**Prerequisites & Notes:** ENG 101; junior status  
Credits: 5

### **ENG 302 - Introduction to Technical and Professional Writing**

Introduction to major contemporary strategies and conventions used in written and oral communication for multiple audiences in professional settings. Covers a variety of written forms used in the preparation and design of technical and business documents, critical analyses of these forms and practices, and the ethical and social implications of a technical writer's choices.

**Prerequisites & Notes:** ENG 101; junior standing.  
Credits: 5

### **ENG 307 - Literature and Culture I: Pre-16th Century**

Analysis, interpretation and discussion of texts in English or in translation composed before the 16th century. Repeatable once as an elective with different topics.

**Prerequisites & Notes:** ENG 202  
Credits: 5

### **ENG 308 - Literature and Culture II: 16th and 17th Centuries**

Analysis, interpretation and discussion of texts in English or in translation from the 16th- and 17th-

century cultures. Repeatable once as an elective with different topics.

**Prerequisites & Notes:** ENG 202  
Credits: 5

### **ENG 309 - Literature and Culture III: 18th and 19th Centuries**

Analysis, interpretation and discussion of texts in English or in translation from the 18th- and 19th-century cultures. Repeatable once as an elective with different topics.

**Prerequisites & Notes:** ENG 202  
Credits: 5

### **ENG 310 - Literature and Culture IV: 19th and 20th Centuries**

Analysis, interpretation and discussion of texts in English or in translation from the 19th- and 20th-century cultures. Repeatable once as an elective with different topics.

**Prerequisites & Notes:** ENG 202  
Credits: 5

### **ENG 311 - Literature and Culture V: 20th and 21st Centuries**

Analysis, interpretation and discussion of texts in English or in translation from the 20th- and 21st-century cultures. Repeatable once as an elective with different topics.

**Prerequisites & Notes:** ENG 202  
Credits: 5

### **ENG 312 - Film and Culture**

Examines various topics through film as a medium of cultural representation. Repeatable once with different topics.

**Prerequisites & Notes:** ENG 202  
Credits: 5

### **ENG 313 - History of Critical and Cultural Theory**

An introduction to critical and cultural theories in a historical context.

**Prerequisites & Notes:** ENG 202

Credits: 5

**ENG 332 - Literature and Philosophy**

Comparative study of the concepts, techniques and concerns of philosophical inquiry and literary analysis as they arise in the philosophical essay and the literary forms of poetry, drama, fiction, creative nonfiction, film and electronic art in English and translation.

**Prerequisites & Notes:** ENG 101

Credits: 5

GUR Attributes: HUM

**ENG 333 - Topics in Global Literature**

Studies in world literature in English or translation and of their historical and cultural contexts.

**Prerequisites & Notes:** ENG 202

Credits: 5

**ENG 334 - Literary and Creative Expression Across North America and Europe**

Analysis primarily of North American and European texts with engagement in issues of multiculturalism and cultural diversity. Repeatable once as an elective with different topics. May be taken only once for GUR credit.

**Prerequisites & Notes:** ENG 101 or equivalent.

Credits: 5

GUR Attributes: BCGM

**ENG 335 - Literary and Creative Expressions Across Asia, Africa, the Middle East, and Latin America**

Analysis primarily of texts of Asia, Africa, the Middle East and Latin America. Repeatable once as an elective with different topics.

**Prerequisites & Notes:** ENG 101 or equivalent.

Credits: 5

GUR Attributes: ACGM

**ENG 336 - Scriptural Literatures in Asia, Africa, the Middle East and Latin America**

Analysis of literary texts in one or more religious traditions primarily of Asia, Africa, the Middle East and Latin America; study of scriptural literature as a source of cultural paradigms.

**Prerequisites & Notes:** ENG 101

Credits: 5

GUR Attributes: ACGM

**ENG 338 - Women and Literature in North America and Europe**

Study of women's texts in various cultures primarily of North America and Europe, including thematic and stylistic development within cultural context.

**Prerequisites & Notes:** ENG 101

Credits: 5

GUR Attributes: BCGM

**ENG 339 - Mythology and Literature**

Comparative study of the patterns, motifs and techniques in world mythologies as they recur and evolve in poetry, drama, fiction, creative nonfiction, film and electronic media in English and translation.

**Prerequisites & Notes:** ENG 202

Credits: 5

GUR Attributes: HUM

**ENG 341 - Studies in Children's Literature**

Examination of the variety and diversity of literature written for children and adolescents; exploration of book format, major genres, and works by notable authors and illustrators.

**Prerequisites & Notes:** ENG 202

Credits: 5

**ENG 342 - Studies in Literary Genres**

Studies in literature from the perspective of genre and of topics in particular literary genres.

**Prerequisites & Notes:** ENG 202

Credits: 5

**ENG 347 - Studies in Young Adult Literature**

Studies in literature written for and/or by young adults. May focus on literary history, genres, theme, critical approaches or specific authors. Class assignments and discussion may focus on using this literature with young adults in secondary schools and in a home setting.

**Prerequisites & Notes:** ENG 202 or permission of

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instructor.

Credits: 5

## **ENG 350 - Introduction to Creative Writing**

Examines the fundamentals of at least two genres, such as fiction, nonfiction, playwriting, or poetry. The course will include both lectures, focused on model texts, and workshop-style discussions, focused on student work.

**Prerequisites & Notes:** ENG 101

Credits: 5

## **ENG 351 - Introduction to Fiction Writing**

Examines the fundamental tools available to writers of fiction: point of view, dialog, characterization and voice. The course introduces the terms and protocol of workshop critique.

**Prerequisites & Notes:** ENG 101

Credits: 5

## **ENG 353 - Introduction to Poetry Writing**

Introduction to the techniques of poetry writing, including craft, practice and modeling.

**Prerequisites & Notes:** ENG 101

Credits: 5

## **ENG 354 - Introduction to Creative Nonfiction Writing**

An introductory course in writing nonfiction prose, such as personal essay, memoir, autobiography, travel writing, and other forms.

**Prerequisites & Notes:** ENG 101

Credits: 5

## **ENG 364 - Introduction to Film Studies**

Overview of the conventions and techniques of narrative cinema with some readings in film theory.

**Prerequisites & Notes:** ENG 202

Credits: 5

## **ENG 370 - Introduction to Language**

Overview of language structure and use. Topics include phonology, morphology, syntax and semantics, how language is acquired, and how it changes over space and time. Emphasis on English

as a global language.

**Prerequisites & Notes:** ENG 101

Credits: 5

## **ENG 371 - Introduction to Rhetoric and Rhetorical Analysis**

Selected issues in ancient and modern rhetorical theory; rhetorical analysis of a variety of texts.

**Prerequisites & Notes:** ENG 101 and junior status.

Credits: 5

## **ENG 401 - Senior Seminar in Writing Studies and Rhetoric**

Senior writing seminar and inquiry into topics from the fields of composition and rhetoric.

**Prerequisites & Notes:** ENG 313 and any two 300 level English courses, and senior status.

Credits: 5

## **ENG 402 - Advanced Technical and Professional Writing**

Writing-intensive class focusing on advanced problems of technical communications and their solutions. Strategies for identifying target readers and meeting their informational needs. Special emphasis on a technical writer's responsibilities and the ethical, social and technical issues surrounding electronic publishing.

**Prerequisites & Notes:** ENG 302

Credits: 5

## **ENG 406 - Topics in Critical and Cultural Theory**

An advanced course that examines one or more critical or cultural theories.

**Prerequisites & Notes:** ENG 313 plus two from: ENG 304-347, ENG 364, ENG 370, ENG 371.

Credits: 5

## **ENG 408 - Cultural Studies**

An advanced course that applies semiotic and/or textual approaches to a wide range of cultural issues. Repeatable once with different topics.

**Prerequisites & Notes:** ENG 313 plus two from:

ENG 304-347, ENG 364, ENG 370, ENG 371.

Credits: 5

### **ENG 410 - Studies in Literary History**

A wide variety of studies in literary history. Repeatable once as an elective with different topics.

**Prerequisites & Notes:** ENG 202 plus three from: ENG 304-347, ENG 364, ENG 370, ENG 371.

Credits: 5

### **ENG 415 - Special Topics in National Literatures**

Studies in a variety of topics, canons or national literatures, such as Irish, Canadian, African, Native or Asian American. Repeatable once as an elective with different topics.

**Prerequisites & Notes:** ENG 202 plus three from: ENG 304-347, ENG 364, ENG 370, ENG 371, possible additional prerequisites relevant to topic.

Credits: 5

### **ENG 418 - Senior Seminar**

An advanced seminar offering an in-depth exploration of specialized topics. Requires students to develop scholarly projects integrating course material with their own literary, historical, and theoretical interests. This course is not repeatable.

**Prerequisites & Notes:** Senior Status; ENG 313 plus two from: ENG 304-347, ENG 364, ENG 370, ENG 371.

Credits: 5

### **ENG 423 - Studies in Major Authors**

Studies in the texts of a writer or writers in English or in translation. Repeatable once as an elective with different authors.

**Prerequisites & Notes:** ENG 202 plus three from: ENG 304-347, ENG 364, ENG 370, ENG 371;

possible additional prerequisites relevant to topic  
Credits: 5

### **ENG 436 - The Structure of English**

Introduction to English sentence structure. Topics include clause structure, modification, complementation, and syntactic principles such as movement, coordinating and pronominalization.

**Prerequisites & Notes:** ENG 370 or instructor permission.

Credits: 5

### **ENG 438 - Cultural History of English**

Examines the cultural, linguistic and literary influences on the development of Old, Middle, Early Modern and present-day English.

**Prerequisites & Notes:** ENG 370 or instructor permission.

Credits: 5

### **ENG 439 - Topics in Language and Linguistics**

Explores topics in language and linguistics of interest to students of English literature, creative writing and English education. Repeatable once as an elective with different topics.

**Prerequisites & Notes:** ENG 370 or instructor permission.

Credits: 5

### **ENG 442 - Studies in Literacy and Learning**

Focuses on a variety of historical, cultural, political and pedagogical issues regarding the nature and definitions of literacy and what it means to be literate in different contexts. Examines the role of schools in general and the English curriculum in particular for fostering the development of literacy/literacies.

**Prerequisites & Notes:** One course from ENG 301, ENG 302, ENG 370, ENG 371 or equivalent experience and instructor approval.

Credits: 5

### **ENG 443 - Teaching English Language Arts in the Secondary Schools I**

Survey of theory, practice, resources and methods of assessment for the teaching of English language arts.

**Prerequisites & Notes:**

ENG 301 or ENG 302; ENG 347; ENG 350; ENG 370; and two from ENG 307, ENG 308, ENG 309, ENG 310, and ENG 311.

Credits: 5

## **ENG 444 - Teaching English Language Arts in the Secondary Schools II**

Continuation of the survey of theory, practice, resources and methods of assessment for the teaching of English language arts. This course may include a two-week, one period a day teaching practicum in a middle or high school.

**Prerequisites & Notes:** ENG 443  
Credits: 5

## **ENG 451 - Creative Writing Seminar - Fiction**

An advanced course in the writing of fiction. Repeatable with different instructors to a maximum of 10 cr.

**Prerequisites & Notes:** ENG 351  
Credits: 5

## **ENG 453 - Creative Writing Seminar - Poetry**

An advanced course providing disciplined expression in a variety of modes of writing poetry. Repeatable with different instructors to a maximum of 10 cr.

**Prerequisites & Notes:** ENG 353  
Credits: 5

## **ENG 454 - Creative Writing Seminar - Creative Nonfiction**

An advanced workshop course in the writing of nonfiction, building on skills learned in prior courses. Repeatable with different instructors to a maximum of 10 cr.

**Prerequisites & Notes:** ENG 354  
Credits: 5

## **ENG 455 - Living Writers**

An advanced course that combines study of the craft of writing in contemporary works of poetry, fiction, and/or nonfiction and literary expression. May include oral performances and lectures by visiting writers. Repeatable with different instructors to a maximum of 10 credits, including original course.

**Prerequisites & Notes:** One from: ENG 351, ENG 353, ENG 354.  
Credits: 5

## **ENG 456 - Special Topics in Fiction Writing**

Intensive reading, writing and workshops in one or more specific modes of fiction, such as fantasy, flash fiction, or adapting fictional works to other media. Repeatable with different instructors to a maximum of 10 credits, including original course.

**Prerequisites & Notes:** ENG 351  
Credits: 5

## **ENG 457 - Special Topics in Poetry Writing**

Intensive study of poetic texts in traditional and experimental forms. Opportunity to compose in a variety of poetic forms. Study of appropriate models. Repeatable with different instructors to a maximum of 10 credits, including original course.

**Prerequisites & Notes:** ENG 353  
Credits: 5

## **ENG 458 - Special Topics in Creative Nonfiction Writing**

Intensive reading, writing and workshop in one or more specific modes of nonfiction, such as memoir, travel writing, autobiography and the personal essay. Repeatable with different instructors to a maximum of 10 credits, including original course.

**Prerequisites & Notes:** ENG 354  
Credits: 5

## **ENG 459 - Editing and Publishing**

Focuses on a variety of professional editing and publishing procedures, opportunities and venues; politics of the literary marketplace; and careers available to writers.

**Prerequisites & Notes:** ENG 351, ENG 353 or ENG 354  
Credits: 5

## **ENG 460 - Special Topics In Creative Writing - Multi-Genre**

Intensive study of topics in creative writing that cross genre boundaries, or that critique those boundaries. Opportunities to compose experimental or hybrid works. Repeatable with different instructors to a maximum of 10 credits.

**Prerequisites & Notes:** ENG 351, ENG 353 or ENG 354

Credits: 5

**ENG 461 - Internship in English: Professional Identity**

Students will intern in a local organization and participate in weekly seminar meetings designed to contribute to their internship experience and their own professional identities.

**Prerequisites & Notes:** Senior status (135 credits) and instructor approval.  
Credits: 5

**ENG 462 - Topics in Professional and Technical Writing**

A rhetorical examination of various specific topics confronting technical and professional writers in a rapidly changing technological world. Topics change annually. Repeatable once.

**Prerequisites & Notes:** One course from ENG 301, ENG 302, ENG 371; or equivalent experience and instructor approval.  
Credits: 5

**ENG 464 - Topics in Film Studies**

Examines various specific topics in film studies and theory. Repeatable once with different topics.

**Prerequisites & Notes:** ENG 364 or instructor permission.  
Credits: 5

**ENG 501 - Literary Theories and Practices**

Examination of theories as they affect the practice of literary criticism and scholarship. Some attention to methods of research and documentation in English studies. Practicum in critical writing.

Credits: 5

**ENG 502 - Seminar in the Writing of Fiction**

Individual projects in fiction along with examination of recently published works of fiction. May be repeated under advisement.

Credits: 5

**ENG 504 - Seminar in the Writing of Poetry**

Individual projects in poetry along with examination of recently published volumes of poetry. May be repeated under advisement.

Credits: 5

**ENG 505 - Seminar in the Writing of Nonfiction**

Individual projects in nonfiction along with examination of classic and modern models of nonfiction. May be repeated under advisement. NOTE: Graduate seminars in playwriting are available from the Department of Theatre Arts.

Credits: 5

**ENG 506 - Seminar in Creative Writing: Multigenre**

Studies in the theory and practice of creative writing that can encompass more than one genre, create hybrid genres, or cross genre lines. May be repeated under advisement.

Credits: 5

**ENG 509 - Internship in Writing, Editing and Production**

Under advisement, students may receive credit while working as interns in both on-campus and off-campus assignments appropriate to their career plans. Repeatable to 5 cr. S/U grading.

Credits: 1-5

Grade Mode: S/U

**ENG 510 - Seminar: Topics in Rhetoric**

Rhetorical theory and composition. Topics from classical tradition and modern developments. Applications for teaching of language, literature and composition. Repeatable with different topics.

Credits: 5

**ENG 513 - Seminar in Teaching College Composition**

Offered once a year in the fall.

**Prerequisites & Notes:** appointment as a teaching assistant or instructor permission  
Credits: 5



## ENGLISH

### **ENG 515 - Studies in Literary and Critical Theory**

Examines major theorists or movements in literary and critical theory. Repeatable with different topics.

Credits: 5

### **ENG 520 - Studies in Poetry**

Examines the characteristics, history, uses and criticism of poetry. Repeatable with different topics.

Credits: 5

### **ENG 525 - Studies in Fiction**

Examines the characteristics, history, uses and criticism of fiction. Repeatable with different topics.

Credits: 5

### **ENG 535 - Studies in Nonfiction**

Examines the characteristics, history, uses and criticism of nonfiction. Repeatable with different topics.

Credits: 5

### **ENG 540 - Studies in Global Literatures**

Examines global literatures, involving topics such as war, imperialism, post-colonialism, religion, feminism, migration, and the politics of language. Repeatable with different topics.

Credits: 5

### **ENG 550 - Studies in American Literatures**

Examines writers, periods and topics drawn from the full diversity of literature written in America. Repeatable with different topics.

Credits: 5

### **ENG 560 - Studies in British Literature**

Examines writers, periods and topics drawn from the full diversity of British literature. Repeatable with different topics.

Credits: 5

### **ENG 570 - Topics in Cultural Studies**

Examines the relationship between culture and texts and applies semiotic and/or textual approaches to a wide range of issues in cultural studies. Repeatable with different topics.

Credits: 5

### **ENG 575 - Studies in Women's Literature**

Examines writers, movements and topics in women's writing that may cut across genres and nationalities. Repeatable with different topics.

Credits: 5

### **ENG 580 - Studies in Film**

Examines the codes and conventions of cinema with attention to critical theory. Repeatable with different topics.

Credits: 5

### **ENG 594 - Practicum in Teaching**

Supervised teaching for MA candidates, under the direction of graduate faculty. Repeatable to a maximum of 5 credits including original course.

**Prerequisites & Notes:** ENG 501

Credits: 2-5

### **ENG 598 - Research in the Teaching of English**

Various announced topics in the teaching of language, literature, composition, technical writing, and creative writing. Repeatable with different topics to a maximum of 10 credits. Each topic repeatable to a maximum of 5 credits.

**Prerequisites & Notes:** admission to MA program or teaching experience

Credits: 1-5

### **ENG 690 - Thesis Writing**

Repeatable to a maximum of 10 credits, including original course.

Credits: 2-10

# General Studies

## Introduction

The General Studies Major is designed for students seeking a flexible academic focus that transcends disciplinary boundaries. Students may develop a personalized plan of study utilizing resources across multiple departments. The major affords students the opportunity to prepare themselves for work in a variety of areas. In consultation with the General Studies Advisor, students design their program of study under the General Studies Major guidelines.

The BA in General Studies is administered and awarded by the College of Humanities and Social Sciences (CHSS). In keeping with the goals, mission, and standards for all students in CHSS, the General Studies Major aspires to graduate individuals who: can appreciate cultural differences and differences of opinion; have developed moral and aesthetic sensibilities; have mastered the basic tools of literacy, communication, and technology; have acquired levels of knowledge about the natural and social worlds, past and present, sufficient for responsible citizenship and the enjoyment of a civilized society, and are lifelong learners. Students interested in pursuing the General Studies Major should contact the General Studies Advisor. See [www.wvu.edu/generalstudies](http://www.wvu.edu/generalstudies).

## Declaration Process

A General Studies Major is available only through an application process.

1. Students are required to meet with the General Studies Advisor to develop a plan of study.
2. The plan of study for the proposed General Studies Major must identify educational objectives and the course planning should be linked to the objectives. A program theme should be developed and designed with advisement from the General Studies Advisor.
  - a. Students must meet all of the prerequisites for courses in the proposed major. No plan of study will be approved if it is apparent that the student hopes to avoid course prerequisites or sequencing.
  - b. Upper division courses in some departments may not be available due to competitive access with the departmental majors and cannot be included in the plan of study unless some prior arrangement and approval has been granted by the department.
3. Students must obtain final approval of the plan of study from the College of Humanities and Social Sciences through the General Studies Advisor.
4. Major declaration cards may be picked up from the General Studies Advisor or are available on the website. The original card, signed by the General Studies Advisor, must be returned to the Registrar's Office.

### Additional Information:

- Fairhaven students may not complete the General Studies major.
- A General Studies Major cannot be earned concurrently with another major.
- Any major earned after the degree is awarded may not be based on essentially the same constellation of courses as the student's General Studies Major.
- Students who have earned a baccalaureate degree at Western cannot major in General Studies.
- A minor in General Studies is not offered.

# Bachelor of Arts

## General Studies, BA

Department of General Studies, College of Humanities and Social Sciences

**60 Credits**

# GENERAL STUDIES

## Introduction/What is the Study of General Studies?

The General Studies major curriculum will focus on upper division level courses, designed to integrate a student's academic interest and skills.

## Why Consider a General Studies Major?

Western's General Studies major provides a solid liberal arts education to prepare students for rapidly changing career opportunities in many different fields. It is designed for students whose interests cannot be served by Western's established majors, and who want to focus their major studies across courses and departments to better meet their career goals or preparation for advanced levels of education.

### Contact Information

#### Departmental Advisor

Dr. Stephen Howie  
Communications Facility 271  
360-650-2561  
Stephen.Howie@wwu.edu

See the department website for additional advisor contacts at  
<http://www.wwu.edu/generalstudies>

### Sample Careers

Manager | Marketing Assistant | Program Administrator | Project Administrator | Staffing Specialist | Case Manager | Sales

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Admission and Declaration of Major

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- 35 upper division level credits in thematic areas requiring General Studies Advisor approval.
- Examples of thematic areas include:
  - Social Sciences
  - Humanities
  - Sciences
  - Business
  - Health
  - Liberal Arts
- 25 additional credits of electives at the upper division level in any area (including the thematic area)

### Additional Requirements

- All courses must be approved on the Plan of Study
- 15 of the 60 credits are credits required after approval of General Studies Plan of Study
- 10 credits maximum of internship or field experience may be included within the 60 credits.
- Students are limited to no more than 40 upper division credits in any single academic department and students are limited to no more than 44 credits in courses taught in business (classes by the departments of accounting, decision sciences, finance and marketing, and management).
- At least 50 percent of the credits used in the general studies major must be earned at Western Washington University.

## General Studies Courses

### **GSTU 410 - Writing Capstone: Framework For Your Future**

Students create a reflective writing portfolio that traces individual intellectual journey and provides ground work for projecting beyond graduation. Students examine artifacts from their undergraduate career to uncover their own history of ideas. Includes both formal and informal writing with opportunities for revision based on feedback.

**Prerequisites & Notes:** General Studies majors only.

Credits: 4

### **GSTU 471 - Internship**

Supervised professional experience emphasizing functional proficiency under joint sponsorship of University and agency personnel. All students participate at the work site for at least 12 hours per week in the type of activities specified in the internship contract. S/U grading. Repeatable up to 10 credits.

**Prerequisites & Notes:** General studies majors only; permission of instructor.

Credits: 5

Grade Mode: S/U

# History

## Introduction

Without knowledge of the past, we are, as one writer has phrased it, like victims of collective amnesia groping in the dark for our identity. History as a discipline is rooted in that fundamental human urge, curiosity. It confronts and weighs the relative significance of chance, inevitability and choice in the passage of time. History is humanistic in its emphasis on the influence of ideas and values, its capacity to both instruct and entertain, and as interpretive literature. In its investigation of social processes, groups and institutions, and the examination of human motivation, it is a social science. It acts as a bridge among disciplines, borrowing from all and contributing a sense of context and sequence to the perception of actions and individuals. The American historian Carl Becker wrote: "The value of history is, indeed, not scientific but moral: by liberalizing the mind, by deepening the sympathies, by fortifying the will, it enables us to control, not society, but ourselves — a much more important thing; it prepares us to live more humanely in the present and to meet rather than to foretell the future."

## Faculty

**KEVIN A. LEONARD** (1997) Chair and Professor. BA, Pomona College; MA, PhD, University of California-Davis.

**SUSAN E. COSTANZO** (1993) Associate Professor. BA, MA, PhD, Northwestern University.

**CECILIA A. DANYSK** (1996) Associate Professor. BA, Concordia University; MA, PhD, McGill University.

**PETER D. DIEHL** (1992) Associate Professor. BA, Yale University; MA, PhD, University of California-Los Angeles.

**SUSAN AMANDA EURICH** (1986) Professor. BA, Portland State University; MA, PhD, Emory University.

**CHRISTOPHER C. FRIDAY** (1992) Professor. BA, Lewis and Clark College; MA, PhD, University of California-Los Angeles.

**STEVEN J. GARFINKLE** (2001) Professor. BA, Tufts University; MA, University of London; PhD, Columbia University.

**LAURIE HOCHSTETLER** (2006) Assistant Professor. BA, Johns Hopkins University; MA, PhD, University of Virginia.

**RANDALL C. JIMERSON** (1994) Professor. BA, Earlham College; MA, PhD, University of Michigan.

**A. RICARDO LÓPEZ** (2008) Associate Professor. BA, National University of Colombia; MA, PhD, University of Maryland, College Park.

**GEORGE MARIZ** (1970) Professor. BA, MA, PhD, University of Missouri.

**JOHANN N. NEEM** (2004) Associate Professor. BA, Brown University; MA, PhD, University of Virginia.

**KATHLEEN A. NUZUM** (2012) Assistant Professor. BA, Western Washington University; MLitt, PhD, University of St. Andrews.

**JENNIFER SELTZ** (2012) Assistant Professor. BA, Brown University; MA, PhD, University of Washington.

**MART A. STEWART** (1992) Professor. BA, Willamette University; MA, Portland State University; PhD, Emory University.

**ROGER R. THOMPSON** (2003) Professor. BA, Stanford University; MA, PhD, Yale University.

**DIANA E. WRIGHT** (1997) Associate Professor. BA, MA, University of Michigan; PhD, University of Toronto.

**SARAH ZIMMERMAN** (2012) Assistant Professor. BA, Ohio University; MA, PhD, University of California-Berkeley.

## *Affiliated Faculty*

**KITTY FRIESEN**, Archives and Records Management.

**MARK I. GREENBERG**, Dean, Western Libraries.

**ROBERT H. KELLER**, Professor Emeritus. Fairhaven College of Interdisciplinary Studies.

**ANTHONY KURTZ**, University Archivist/Records Manager.

**RUTH STEELE**, Archivist. Center for the Pacific Northwest Studies.

**MIDORI TAKAGI**, Associate Professor. Fairhaven College of Interdisciplinary Studies.

## Other Departmental Information

### *Mid-Program Checkpoint*

A student seeking to complete a Bachelor of Arts degree in history within a four-year time span should have completed at least three courses from HIST 103, 104, 111, 112, 113, 280, 281 or EAST 201 or 202 by the start of the junior year. Major omissions from this list will make it difficult or impossible to complete this degree within two additional years.

## Graduate Study

For concentrations leading to the Master of Arts degree and for information concerning the archival training program, see the *Graduate School* section of this catalog.

# Bachelor of Arts

## History, BA

Department of History, College of Humanities and Social Sciences

### 60 Credits

### Introduction/What is the Study of History?

Most students are required to study history in both elementary and secondary schools. At that level, students often are given the impression that the study of history simply requires memorization of names, dates, and other facts about events in the past. At the college level, however, the study of history facilitates the development of research, analytical, evaluative, and interpretive skills. History majors learn how to locate and access a wide range of sources, to analyze historical evidence, including textual and visual sources, to evaluate historical interpretations, and to develop and support their own interpretations. The quantity of writing and discussion required in history courses also helps students to develop effective communication skills.

### Why Consider a History Major?

If you like to read, write, and learn about the experiences of people in different places and times, you should consider the history major. No other major prepares students for as many different careers. History majors' strong communication skills are valued by all employers, including businesses and government agencies. The research, analytical, and evaluative skills that history majors develop prepare them for graduate study in many humanistic disciplines, public affairs, and library science and for careers as journalists, government officials, and attorneys. A growing number of history majors have made careers in the expanding field of public history. They work in museums, archives, and historical preservation.

#### Contact Information

#### Major Information and History Department Chair

Kevin Leonard  
Bond Hall  
360-650-3041  
Kevin.Leonard@wwu.edu

#### Office Assistant

Willie Smith  
Bond Hall 364  
360-650-7779  
Willie.Smith@wwu.edu

# HISTORY

## Sample Careers

Foreign Service Officer | Attorney | Museum Curator | Government Official | Journalist | Business Manager | Social Studies Teacher | FBI/CIA Agent | Librarian | Archivist | Historical Preservation Specialist

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

There are no prerequisites for declaring a major in History. Students who have earned Advanced Placement or International Baccalaureate credit in history should not take the equivalent courses at Western. It is recommended that students who are considering a major in History take at least three introductory courses in History during their first year. These courses include HIST 103, HIST 104, HIST 111, HIST 112, HIST 113, HIST 121, HIST 123, HIST 273, HIST 274, HIST 277, HIST 278, HIST 280, HIST 281.

It is recommended that students contact a faculty advisor in the department as soon as they wish to declare a major in History.

### **Grade Requirements**

A minimum grade point average in history courses of 2.50 is required for graduation. No course with a grade of less than C- may be counted toward this major.

### Requirements

For this program history courses are grouped into the following fields:

- United States
- Europe
- East and South Asia
- Africa and Middle East
- Ancient
- Western Hemisphere (outside U.S.)

Credits to be distributed as follows:

- Three courses in one of the above fields, one of which must be an upper-division class
- Three courses in a second field, one of which must be an upper-division class
- Three courses in a third field, one of which must be an upper-division class
- HIST 499 - Historical Research (5 credits)
- Electives under advisement

**At least 30 of the 60 credits must be in upper division (300-400 level) courses.**

### Additional Requirements

The department recommends that majors take the maximum permissible number of history courses in the General University Requirements program. Further, history majors are encouraged to enroll in HIST 401 - Methods of Research and Analysis, which offers practical training in the tools of historical research. Students planning to declare a history major should do so at the earliest possible date.

It is strongly recommended that majors who elect a concentration in a field where languages other than English predominate take enough language study to become proficient in appropriate language(s). Students planning on graduate study in history are advised that many graduate schools require foreign language proficiency for admission.

## **History/Social Studies, BA**

Department of History, College of Humanities and Social Sciences

### **90 Credits**

### Introduction/What is the Study of History/Social Studies?

The History/Social Studies major is designed to prepare students to teach history and social studies in secondary schools. In their history courses, History/Social Studies majors learn how to locate and access a wide range of sources, to analyze historical evidence, including textual and visual sources, to evaluate historical interpretations, and to develop and support their own interpretations. The quantity of writing and discussion required in history courses also helps students to develop effective communication skills. The required courses in economics, geography, and political science are intended to prepare students to teach these subjects in middle and high schools.

### Why Consider a History/Social Studies Major?

If you want to teach history or social studies in a middle or high school, you should consider the History/Social Studies major. However, this major also prepares students for a wider range of careers. The knowledge students acquire and the skills they develop in their history courses and in courses in social sciences prepare them for law school, graduate programs in public policy and international affairs, and careers as journalists, government officials, and attorneys.

Secondary Education students who wish to be endorsed in Social Studies may choose this major. However, the History/Social Studies degree does not require that a student pursue a teaching certificate. History/Social Studies majors interested in Secondary certification must apply separately to the certification programs, such as those in Woodring College of Education. Students usually apply to Woodring in their senior year or after they graduate.

To receive certification, students must also complete an approved teacher certification program. To receive a recommendation for state of Washington certification, students must complete the teacher certification program, including SEC 426, which is offered by the Department of Secondary Education as a part of 1) the undergraduate Bachelor of Arts degree, or 2) a post-baccalaureate program, or 3) the Masters in Teaching degree. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements. Completion of this combined major leads to an endorsement in social studies.

#### Contact Information

##### Major Information and History Department Chair

Kevin Leonard  
Bond Hall 360  
360-650-3041  
Kevin.Leonard@wwu.edu

##### Office Assistant

Willie Smith  
Bond Hall 364  
360-650-7779  
Willie.Smith@wwu.edu

#### Sample Careers

Social Studies Teacher | Politician/Attorney | Teacher | Government Official | Law Enforcement Officer | Archivist | Museum Curator

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

There are no prerequisites for declaring a major in History/Social Studies. Students who have earned Advanced Placement or International Baccalaureate credit in history should not take the equivalent courses at Western. It is recommended that students who are considering a major in History/Social Studies take at least three introductory courses in history during their first year. These courses include HIST 103, HIST 104, HIST 111, HIST 112, HIST 113, HIST 121, HIST 123, HIST 273, HIST 274, HIST 277, HIST 278, HIST 280, HIST 281.

It is recommended that students contact a faculty advisor in the department as soon as they wish to declare a major in History/Social Studies.



# HISTORY

## Grade Requirements

No course with a grade of less than C (2.0) may be counted in this major. Students must achieve a GPA of at least 2.5 in the courses counted in the major. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

## Requirements

- ENVS 204 - Human Geography
  - One course from:
    - PLSC 101 - Government and Politics in the Modern World
    - PLSC 261 - Introduction to Political Theory
    - PLSC 271 - Introduction to International Relations
    - PLSC 291 - Introduction to Comparative Politics
  - PLSC 250 - The American Political System
  - One course from:
    - ECON 206 - Introduction to Microeconomics
    - ECON 446 - Economics for the Teacher (preferred)
  - One course from:
    - ECON 207 - Introduction to Macroeconomics
    - ECON 447 - Methods for Teaching About the National Economy in the Public Schools (preferred)
  - Additional credits in any of the above disciplines or anthropology, sociology or psychology to a total of at least 30 credits
- History credits should be distributed under advisement as follows:
- 2 courses in the history of the United States. One course must focus on the period before 1865 and the other must focus on the period since 1865.
  - 2 courses with an emphasis on the 600-1450 CE period. One course must focus on Europe and the other course must focus on East Asia, South Asia, Africa, and/or the Middle East.
  - 2 courses with an emphasis on the period since 1450 CE. One course must focus on Europe, and the other course must focus on East Asia, South Asia, Africa, the Middle East, Canada, and/or Latin America.
  - 2 courses in the history of the ancient world (prior to 600 CE), covering two different continents.
  - HIST 391 - History of the Pacific Northwest
  - HIST 499 - Historical Research
  - Electives under advisement

**NOTE: At least 30 of the 60 history course credits must be at the upper-division level.**

To assure that competency requirements have been met, students should consult the department's approved list for courses for periods and geographical regions.

## Bachelor of Arts in Education

### History — Elementary, BAE

Department of History, College of Humanities and Social Sciences

### 45 Credits

### Introduction/What is the Study of History-Elementary?

The History-Elementary major is designed for students who plan to become elementary school teachers. In their history courses, History-Elementary majors learn how to locate and access a wide range of sources, to analyze historical evidence, including textual and visual sources, to evaluate historical interpretations, and to develop and support their own interpretations. The quantity of writing and discussion required in history courses also helps students to develop effective communication skills.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in elementary education. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

### Why Consider a History-Elementary Major?

If you want to teach in an elementary school and are interested in history, you should consider the History-Elementary major.

#### Contact Information

##### Major Information and History

###### Department Chair

Kevin Leonard  
Bond Hall 360  
360-650-3041  
Kevin.Leonard@wwu.edu

###### Elementary Education

###### Professional Program Information

Miller Hall 300  
360-650-3336  
<http://www.wce.wwu.edu/Depts/ELED/>

###### Office Assistant

Willie Smith  
Bond Hall 364  
360-650-7779  
Willie.Smith@wwu.edu

###### Teacher Education Admissions

Miller Hall 150  
360-650-3313  
<http://www.wce.wwu.edu/admiss>

###### Elementary Education

###### Professional Program Advisor and Program Manager

Ellen Kreider  
Miller Hall 301D  
360-650-7948  
Ellen.Kreider@wwu.edu

#### Sample Careers

Elementary Teacher

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

It is recommended that students contact a faculty advisor the department as soon as they wish to declare a major in History-Elementary.

### Grade Requirements

A grade of C (2.0) or better is required for courses in the elementary education professional program and all courses required for the endorsement.

A minimum grade point average in history courses of 2.50 is required for graduation. At least 15 of the credits must be in upper-division courses. No course with a grade of less than C (2.0) may be counted in this major.

#### Requirements

- Two courses in United States history
- Two courses in European history

# HISTORY

- Two courses from one of the following areas: East and South Asia; or Africa and Middle East; or Western Hemisphere (outside U.S.)
- HIST 391 - History of the Pacific Northwest
- Electives under advisement

## Additional Requirements

## Elementary Education Professional Program Requirements (103-104 credits)

Department of Elementary Education, Woodring College of Education

### Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

### Admission and Declaration Process

Admission Requirements

### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

#### Professional Studies Core (25 credits)

- ELED 301 - Educational Psychology I: Development and Individual Differences
- ELED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Basic Instructional Technology Skills
- I T 442 - Classroom Use of Instructional Technology (Elementary)
- SPED 364 - Teaching Each Student

#### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-79 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
  - ELED 425 - Social Studies for the Elementary School
  - ELED 470 - Developing Teaching
  - ELED 471 - Documenting Teaching
  - ELED 480 - Literacy: Beginning Communicators
  - ELED 481 - Literacy: Fluent Communicators

- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

## Master of Arts

### History, Archives and Records Management, Non-Thesis, MA

*College of Humanities and Social Sciences*

#### Graduate Faculty

**Costanzo, Susan E.**, PhD, Russian/Soviet, Europe.

**Danyusk, Cecilia A.**, PhD, Canada.

**Diehl, Peter D.**, PhD, Medieval, Ecclesiastical, Social.

**Eurich, S. Amanda**, PhD, early modern Europe, France and European social history.

**Friday, Christopher C.**, PhD, American Indian, Asian American, Pacific Northwest, Public History.

**Garfinkle, Steven J.**, PhD, ancient Near East and Mediterranean, historical theory and methods.

**Hochstetler, Laurie**, PhD, U.S. colonial.

**Jimerson, Randall C.**, PhD, archives and records management, 19th-century U.S.

**Leonard, Kevin A.**, PhD, 20th-century U.S., U.S. West.

**López, A. Ricardo**, PhD, Latin America.

**Mariz, George**, PhD, European intellectual history, Great Britain.

**Neem, Johann N.**, PhD, Early U.S. Republic.

**Nuzum, Kathleen A.**, PhD, 20th-century U.S., race, historiography.

**Seltz, Jennifer**, PhD, late 19th-century and 20th-century U.S., U.S. West.

**Stewart, Mart A.**, PhD, 19th-century U.S., Civil War and Reconstruction, Environmental.

**Thompson, Roger R.**, PhD, China.

**Wright, Diana E.**, PhD, Japan.

**Zimmerman, Sarah**, PhD, Africa.

#### *Affiliates*

**Friesen, Kitty**, paper conservator, Archives.

**Kurtz, Anthony**, MA History with a certificate in Archives & Records Management.

**Steele, Ruth**, MA History with a certificate in Archives & Records Management, MA (Hons) History, University of Edinburgh.

Program Advisor: Dr. Randall Jimerson, Bond Hall 324, 360-650-3139, Rand.Jimerson@wwu.edu

#### Goals

The Department of History offers a graduate program leading to the degree of Master of Arts in history with a certificate in archives and records management. The Graduate Program in Archives and Records Management

# HISTORY

(ARM) prepares students for professional careers in both archives and records management. The curriculum emphasizes the interdependence of these two disciplines, both of which are essential to the challenges of documenting and preserving essential evidence of modern organizations and individuals.

The program prepares students to: 1) enter a professional career as an archivist or records manager; 2) apply analytical skills to problem-solving and to evaluation of a broad range of record keeping needs within organizations; 3) enter doctoral programs or pursue other advanced academic training; and 4) assume positions as researchers, writers, teachers, or curators in a variety of public and private settings.

Grounded in the study of history, the program recognizes the value of historical knowledge and understanding as a basis for identifying and preserving records of enduring value to society. The curriculum integrates automation and electronic records with traditional methods for textual, audio, and visual records. Students examine basic principles of archives and records management, learn methods of selecting, organizing, and using recorded information, and gain practical work experience in applying these techniques through an extended internship. A required master's thesis provides opportunity for original research and writing. The purpose of this program is to prepare students for a career and to enable them to learn to think and function as professional archivists and/or records managers.

## Prerequisites

A baccalaureate degree from an accredited U.S. college or university, or an equivalent degree from a foreign university, or the permission of the department. Applicants with less than 25 credits in history or historical studies will be required to demonstrate knowledge of history and an ability to conduct historical research. For further information on admission requirements and procedures, contact the program director. Applicants with an advanced degree from an accredited institution are recommended, but not required, to submit GRE scores.

## Program Requirements (56 credits)

The ARM requires 56 credits and foreign language competence. Two years minimum are required to complete the program although some students may take longer.

- HIST 505 - Historical Theory and Method
- HIST 525 - History and Principles of Archives and Records Management
- HIST 530 - Arrangement and Description of Archives
  - One course from:
    - HIST 526 - Selection and Appraisal
    - HIST 532 - Records and Information Management
  - One course from:
    - HIST 528 - Reference, Access and Outreach
    - HIST 534 - Preservation of Archival Materials
- HIST 536 - Internship in Archives and Records Management
- HIST 538 - Advanced Seminar in Archives and Records Management
- HIST 539 - Research and Writing Seminar: Archives and Records Management
  - Two graduate courses in history
  - Elective course

## Additional Information

### **Language Requirement**

The foreign language requirement may be met in one of two ways: by passing an exam approved or administered by the department; or by earning a B grade or higher in the last course of a second-year

language program. Courses graded on a pass/no pass basis would not qualify for satisfying the language requirement. Tests and course work taken before entry into the graduate program may be counted if completed within five years of acceptance into the graduate program. ARM master's students may demonstrate computer programming competence, in lieu of a foreign language, by completing a three course sequence (e.g. CSCI 102, CSCI 202, MIS 314) with final course grade of B or better, or as approved by the history faculty.

### ***Internship***

Students complete a 350-hour internship (HIST 536) at a cooperating archives or records management agency. This provides supervised practical experience in professional work. Internships have been available in recent years in governmental, academic, business, and historical organizations in the Pacific Northwest and throughout the U.S. and Canada. Selection of internships is based on individual needs and interests, in consultation with the program advisor.

### ***Electives***

Electives, including courses in history, archives, records management, or another discipline related to the student's goals and interests, should be chosen in consultation with the program advisor.

### ***Research Seminar***

A Research Seminar (HIST 539) is required. Topics may relate to any aspect of archives, records management, or information studies. The Research Seminar provides a structured framework for original research, writing, and revisions, typically covering three academic terms during the second year of graduate study. The result will be an original research article suitable for submission for publication, either in print or online.

## **History, Archives and Records Management, Thesis, MA**

*College of Humanities and Social Sciences*

### **Graduate Faculty**

**Costanzo, Susan E.**, PhD, Russian/Soviet, Europe.

**Danysek, Cecilia A.**, PhD, Canada.

**Diehl, Peter D.**, PhD, Medieval, Ecclesiastical, Social.

**Eurich, S. Amanda**, PhD, early modern Europe, France and European social history.

**Friday, Christopher C.**, PhD, American Indian, Asian American, Pacific Northwest, Public History.

**Garfinkle, Steven J.**, PhD, ancient Near East and Mediterranean, historical theory and methods.

**Hochstetler, Laurie**, PhD, U.S. colonial.

**Jimerson, Randall C.**, PhD, archives and records management, 19th-century U.S.

**Leonard, Kevin A.**, PhD, 20th-century U.S., U.S. West.

**López, A. Ricardo**, PhD, Latin America.

**Mariz, George**, PhD, European intellectual history, Great Britain.

**Neem, Johann N.**, PhD, Early U.S. Republic.

**Nuzum, Kathleen A.**, PhD, 20th-century U.S., race, historiography.

**Seltz, Jennifer**, PhD, late 19th-century and 20th-century U.S., U.S. West

**Stewart, Mart A.**, PhD, 19th-century U.S., Civil War and Reconstruction, Environmental.

**Thompson, Roger R.**, PhD, China.

**Wright, Diana E.**, PhD, Japan.

**Zimmerman, Sarah**, PhD, Africa.

# HISTORY

## *Affiliates*

**Friesen, Kitty**, paper conservator, Archives.

**Kurtz, Anthony**, MA History with a certificate in Archives & Records Management.

**Steele, Ruth**, MA History with a certificate in Archives & Records Management, MA (Hons) History, University of Edinburgh.

Program Advisor: Dr. Randall Jimerson, Bond Hall 324, 360-650-3139, Rand.Jimerson@wwu.edu

## **Goals**

The Department of History offers a graduate program leading to the degree of Master of Arts in history with a certificate in archives and records management. The Graduate Program in Archives and Records Management (ARM) prepares students for professional careers in both archives and records management. The curriculum emphasizes the interdependence of these two disciplines, both of which are essential to the challenges of documenting and preserving essential evidence of modern organizations and individuals.

The program prepares students to: 1) enter a professional career as an archivist or records manager; 2) apply analytical skills to problem-solving and to evaluation of a broad range of record keeping needs within organizations; 3) enter doctoral programs or pursue other advanced academic training; and 4) assume positions as researchers, writers, teachers, or curators in a variety of public and private settings.

Grounded in the study of history, the program recognizes the value of historical knowledge and understanding as a basis for identifying and preserving records of enduring value to society. The curriculum integrates automation and electronic records with traditional methods for textual, audio, and visual records. Students examine basic principles of archives and records management, learn methods of selecting, organizing, and using recorded information, and gain practical work experience in applying these techniques through an extended internship. A required master's thesis provides opportunity for original research and writing. The purpose of this program is to prepare students for a career and to enable them to learn to think and function as professional archivists and/or records managers.

## **Prerequisites**

A baccalaureate degree from an accredited U.S. college or university, or an equivalent degree from a foreign university, or the permission of the department. Applicants with less than 25 credits in history or historical studies will be required to demonstrate knowledge of history and an ability to conduct historical research. For further information on admission requirements and procedures, contact the program director. Applicants with an advanced degree from an accredited institution are recommended, but not required, to submit GRE scores.

## Program Requirements (56 credits)

The ARM requires 56 credits and foreign language competence. Two years minimum are required to complete the program although some students may take longer.

- HIST 505 - Historical Theory and Method
- HIST 525 - History and Principles of Archives and Records Management
- HIST 530 - Arrangement and Description of Archives
  - One course from:
    - HIST 526 - Selection and Appraisal
    - HIST 532 - Records and Information Management
  - One course from:
    - HIST 528 - Reference, Access and Outreach
    - HIST 534 - Preservation of Archival Materials
- HIST 536 - Internship in Archives and Records Management
- HIST 538 - Advanced Seminar in Archives and Records Management

- HIST 690 - Research and Writing Seminar: Thesis (12 credits)
  - Two graduate courses in history (8)
  - Elective course(s)

#### Additional Information

#### **Language Requirement**

The foreign language requirement may be met in one of two ways: by passing an exam approved or administered by the department; or by earning a B grade or higher in the last course of a second-year language program. Courses graded on a pass/no pass basis would not qualify for satisfying the language requirement. Tests and course work taken before entry into the graduate program may be counted if completed within five years of acceptance into the graduate program. ARM master's students may demonstrate computer programming competence, in lieu of a foreign language, by completing a three course sequence (e.g., CSCI 102, CSCI 202, MIS 314) with final course grade of B or better, or as approved by the history faculty.

#### **Internship**

Students complete a 350-hour internship (HIST 536) at a cooperating archives or records management agency. This provides supervised practical experience in professional work. Internships have been available in recent years in governmental, academic, business, and historical organizations in the Pacific Northwest and throughout the U.S. and Canada. Selection of internships is based on individual needs and interests, in consultation with the program advisor.

#### **Electives**

Electives, including courses in history, archives, records management, or another discipline related to the student's goals and interests, should be chosen in consultation with the program advisor.

#### **Research Thesis**

A research thesis (HIST 690) is required. Topics may relate to any field of history.

## **History, Non-Thesis, MA**

*College of Humanities and Social Sciences*

### **Graduate Faculty**

**Costanzo, Susan E.**, PhD, Russian/Soviet, Europe.

**Danysk, Cecilia A.**, PhD, Canada.

**Diehl, Peter D.**, PhD, Medieval, Ecclesiastical, Social.

**Eurich, S. Amanda**, PhD, early modern Europe, France and European social history.

**Friday, Christopher C.**, PhD, American Indian, Asian American, Pacific Northwest, Public History.

**Garfinkle, Steven J.**, PhD, ancient Near East and Mediterranean, historical theory and methods.

**Hochstetler, Laurie**, PhD, U.S. colonial.

**Jimerson, Randall C.**, PhD, archives and records management, 19th-century U.S.

**Leonard, Kevin A.**, PhD, 20th-century U.S., U.S. West.

**López, A. Ricardo**, PhD, Latin America

**Mariz, George**, PhD, European intellectual history, Great Britain.

**Neem, Johann N.**, PhD, Early U.S. Republic.

**Nuzum, Kathleen A.**, PhD, 20th-century U.S., race, historiography



# HISTORY

**Seltz, Jennifer**, PhD, late 19th-century and 20th-century U.S., U.S. West

**Stewart, Mart A.**, PhD, 19th-century U.S., Civil War and Reconstruction, Environmental.

**Thompson, Roger R.**, PhD, China.

**Wright, Diana E.**, PhD, Japan.

**Zimmerman, Sarah**, PhD, Africa

## *Affiliates*

**Friesen, Kitty**, paper conservator, Archives.

**Kurtz, Anthony**, MA History with a certificate in Archives & Records Management.

**Steele, Ruth**, MA History with a certificate in Archives & Records Management, MA (Hons) History, University of Edinburgh.

## **Goals**

The program prepares students to: 1) enter doctoral programs or pursue other advanced academic training in history; 2) teach at the secondary or community-college level, and 3) assume positions as researchers, writers, teachers and curators in a variety of public and private settings

## **Prerequisites**

Admission to graduate status and to graduate courses requires completion of an undergraduate major in history or the permission of the department. Applicants must also complete the general section of the Graduate Record Examination prior to admission to the program.

## **Application Information**

**Admit Quarter:** Students are generally admitted only for the academic year, not summer.

**TA Deadlines:** April 1 for all program specializations.

### **Supporting Materials:**

- In addition to the Graduate School application requirements, all history applicants must submit a brief statement of purpose and goals, and a writing sample, such as a research paper or similar example of writing ability

## Program Requirements

Non-Thesis: Basic Requirements 48 credits

- HIST 505 - Historical Theory and Method (4)
  - Three courses in one field and three courses in another, with no more than one 400-level course in each area (maximum 10 credits at the 400 level)
  - Submission of three revised graduate seminar papers to a committee of three department faculty no later than week seven of the final term of study. Proposed revisions to be arranged with that committee no later than week seven in the term prior to the final term of study
  - Completion of Language Requirement (see below)

## Additional Information

### **Fields of Study**

Fields of study fall into four broad areas:

- United States, Western Hemisphere (excluding USA), Europe, Africa and Middle East, Asia
- Ancient, Medieval, Early Modern, or Modern Periods
- Comparative History (consult with graduate advisor)
- Archives and Records Management.

Students who choose the non-thesis option are required to complete at least three courses in one field and three courses in another, with no more than one 400-level course in each as determined in consultation with the graduate advisor (maximum 10 credits at the 400 level).

### **Electives**

To complete a program in the Non-Thesis option electives may be chosen, in consultation with the graduate advisor from other seminars, readings courses, 400-level undergraduate courses (maximum of 10 credits) or HIST 500 (in rare cases, only with permission of the graduate advisor).

### **Language Requirement**

The foreign language requirement may be met in one of two ways: by passing an exam approved or administered by the department; or by earning a B grade or higher in the last course of a second-year language program. Courses graded on a pass/no pass basis would not qualify for satisfying the language requirement. Tests and course work taken before entry into the graduate program may be counted if completed within five years of acceptance into the graduate program, or, where appropriate and with departmental permission, a demonstrated competence in mathematics, statistics, or appropriate computer programs/processes, as determined by advisor.

For further information, contact departmental office, Bond Hall 364, 360-650-3429.

## **History, Thesis, MA**

*College of Humanities and Social Sciences*

### **Graduate Faculty**

**Costanzo, Susan E.**, PhD, Russian/Soviet, Europe.

**Danyk, Cecilia A.**, PhD, Canada.

**Diehl, Peter D.**, PhD, Medieval, Ecclesiastical, Social.

**Eurich, S. Amanda**, PhD, early modern Europe, France and European social history.

**Friday, Christopher C.**, PhD, American Indian, Asian American, Pacific Northwest, Public History.

**Garfinkle, Steven J.**, PhD, ancient Near East and Mediterranean, historical theory and methods.

**Hochstetler, Laurie**, PhD, U.S. colonial.

**Jimerson, Randall C.**, PhD, archives and records management, 19th-century U.S.

**Leonard, Kevin A.**, PhD, 20th-century U.S., U.S. West.

**López, A. Ricardo**, PhD, Latin America.

**Mariz, George**, PhD, European intellectual history, Great Britain.

**Neem, Johann N.**, PhD, Early U.S. Republic.

**Nuzum, Kathleen A.**, PhD, 20th-century U.S., race, historiography.

**Seltz, Jennifer**, PhD, late 19th-century and 20th-century U.S., U.S. West.

**Stewart, Mart A.**, PhD, 19th-century U.S., Civil War and Reconstruction, Environmental.

**Thompson, Roger R.**, PhD, China.

**Wright, Diana E.**, PhD, Japan.

**Zimmerman, Sarah**, PhD, Africa.

### *Affiliates*

**Friesen, Kitty**, paper conservator, Archives.

**Kurtz, Anthony**, MA History with a certificate in Archives & Records Management.

**Steele, Ruth**, MA History with a certificate in Archives & Records Management, MA (Hons) History, University of Edinburgh.

# HISTORY

## Goals

The program prepares students to: 1) enter doctoral programs or pursue other advanced academic training in history; 2) teach at the secondary or community-college level, and 3) assume positions as researchers, writers, teachers and curators in a variety of public and private settings

## Prerequisites

Admission to graduate status and to graduate courses requires completion of an undergraduate major in history or the permission of the department. Applicants must also complete the general section of the Graduate Record Examination prior to admission to the program.

## Application Information

**Admit Quarter:** Students are generally admitted only for the academic year, not summer.

**TA Deadlines:** April 1 for all program specializations.

### Supporting Materials:

- In addition to the Graduate School application requirements, all history applicants must submit a brief statement of purpose and goals, and a writing sample, such as a research paper or similar example of writing ability

## Program Requirements

Thesis: Basic Requirements 45 credits

- HIST 505 - Historical Theory and Method (4)
- HIST 690 - Research and Writing Seminar: Thesis (12)
  - A written thesis prospectus is a prerequisite for 690 registration
  - Three courses in a primary field and two in a secondary field
  - Elective courses to total minimum 45-credit requirement
  - Completion of Language Requirement (see below)

## Additional Information

### Fields of Study

Fields of study fall into four broad areas:

- United States, Western Hemisphere (excluding USA), Europe, Africa and Middle East, Asia
- Ancient, Medieval, Early Modern, or Modern Periods
- Comparative History (consult with graduate advisor)
- Archives and Records Management.

Students who choose the thesis option are required to complete at least three courses in a primary field and two courses in a secondary field, those fields to be determined in consultation with the graduate advisor and thesis committee chair.

### Electives

To complete the program in the Thesis option, electives may be chosen, in consultation with the graduate advisor from other seminars, readings courses, 400-level undergraduate courses (maximum of 10 credits) or HIST 500 (in rare cases, only with permission of the graduate advisor).

### Language Requirement

The foreign language requirement may be met in one of two ways: by passing an exam approved or administered by the department; or by earning a B grade or higher in the last course of a second-year language program. Courses graded on a pass/no pass basis would not qualify for satisfying the language

requirement. Tests and course work taken before entry into the graduate program may be counted if completed within five years of acceptance into the graduate program, or, where appropriate and with departmental permission, a demonstrated competence in mathematics, statistics, or appropriate computer programs/processes, as determined by advisor.

For further information, contact departmental office, Bond Hall 364, 360-650-3429.

## Minor

### Foreign Cultures Minor

Department of History, College of Humanities and Social Sciences

#### 25 credits\*

#### Introduction/What is the Study of Foreign Cultures?

The history department offers a minor in foreign cultures for foreign language majors and other interested students.

#### Why Consider a Foreign Cultures Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- HIST 428 - Modern Europe: 1914-1945
- Two courses in one of the following areas:
  - **France and the French-speaking world:**
    - HIST 277 - Canada: A Historical Survey
    - HIST 286 - African History, 1800-present
    - HIST 341 - France 1500-1815
    - HIST 342 - France 1815-1945
    - HIST 359 - America and Vietnam
    - HIST 376 - French Colonial Canada: 1534-1763
    - HIST 478 - History of Nationalism in French Canada
  - **Latin America:**
    - HIST 273 - Latin America: 1492-1824
    - HIST 274 - Latin America: 1824 to the Present
    - HIST 474 - U.S. Latin American Relations

# HISTORY

## **Russia:**

- HIST 333 - Imperial Russia: 1689-1917
- HIST 334 - 20th Century Russia
- HIST 364 - Film As History (in appropriate topic area)
- Electives under advisement

**\* Half must be in upper-division courses**

## **History Minor**

Department of History, College of Humanities and Social Sciences

### **25 Credits**

### **Introduction/What is the Study of History?**

### **Why Consider a History Minor?**

#### Contact Information

#### **Minor Information and History Department Chair**

Kevin Leonard  
Bond Hall  
360-650-3041  
Kevin.Leonard@wwu.edu

#### Sample Careers

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

#### **Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A minimum grade point average in history courses of 2.50 is required for graduation.

#### Requirements

For this program history courses are grouped into the following fields:

- United States
- Europe
- East and South Asia
- Africa and Middle East
- Western Hemisphere (outside U.S.)
- Ancient

Credits should be distributed as follows:

- Two courses in one of the above fields
- Two courses in a second field
- Electives under advisement
- At least ten credits must be in upper-division courses

## Latin American Studies Minor

Combined minor offered by the Departments of History, Anthropology and Modern and Classical Languages, College of Humanities and Social Sciences

### 30 Credits

#### Introduction/What is the Study of Latin American Studies?

This program is offered so that students interested in Latin America may be able to build expertise by drawing on the separate courses in this area offered by the departments of this University.

A major in Latin American Studies is available through the student-faculty designed majors program (see the Liberal Studies section of this catalog).

For further information and advisement, consult the Department of Modern and Classical Languages, the Department of History or the Department of Anthropology.

#### Why Consider a Latin American Studies Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- Two courses in Spanish above the 201 level
- 10 credits from:
  - HIST 273 - Latin America: 1492-1824
  - HIST 274 - Latin America: 1824 to the Present
  - ANTH 365 - Peoples of Latin America
- Remainder in courses relating to Latin America from any academic department, under advisement.

## Public History Minor

Department of History, College of Humanities and Social Sciences

### 25 Credits

#### Introduction/What is the Study of Public History?

#### Why Consider a Public History Minor?

# HISTORY

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- HIST 493 - Public History Seminar
- HIST 494 - Public History Internship (repeatable to 10 credits)
  - 15-17 additional credits under advisement outside the department of the student's declared major (one methods course strongly recommended)Courses taken for credit in these programs may not be counted toward the major.

## WWU Certificate (Non-Degree)

### Archives and Records Management Certificate Program

The department also offers a post-master's certificate in archives and records management to students who already possess an advanced degree from an accredited institution.

#### *Application Information*

Admissions: Those seeking the ARM certificate apply to the Graduate School as post-master's degree candidates. Applicants whose advanced degree is in a field other than history must take at least one history course in addition to certificate requirements (see below). Graduate Record Examination scores are recommended, but not required. See other application information for the History MA program.

#### ARM Certificate Requirements

ARM certificate students with an advanced degree in history must complete 24 credits.

- HIST 525 - History and Principles of Archives and Records Management
  - One course from:
    - HIST 530 - Arrangement and Description of Archives
    - HIST 532 - Records and Information Management
  - HIST 536 - Internship in Archives and Records Management
    - Two of the following:
      - HIST 526 - Selection and Appraisal
      - HIST 528 - Reference, Access and Outreach
      - HIST 530 - Arrangement and Description of Archives (4)
      - HIST 532 - Records and Information Management (4)
  - HIST 534 - Preservation of Archival Materials
  - HIST 538 - Advanced Seminar in Archives and Records Management

ARM certificate students with an advanced degree in a field other than history must complete 24 credits, plus one additional history course at the 500 level (4 credits).

## History Courses

### **HIST 103 - Introduction to American Civilization: American History to 1865**

From ancient America to the end of the Civil War.

Credits: 5  
GUR Attributes: HUM

### **HIST 104 - Introduction to American Civilization: American History Since 1865**

From the end of the Civil War to the present.

Credits: 5  
GUR Attributes: HUM

### **HIST 111 - Introduction to Western Civilization: Prehistory to 476**

Survey of the political, social and cultural history of western civilization from prehistory to the collapse of the Roman empire.

Credits: 5  
GUR Attributes: HUM

### **HIST 112 - Introduction to Western Civilization: 476-1713**

Human development in the Western world; emphasis upon ideas, institutions, forces and movements shaping contemporary life. Survey of the cultural, political, social and economic history of Europe from the early Middle Ages to the signing of the Treaty of Utrecht.

Credits: 5  
GUR Attributes: HUM

### **HIST 113 - Introduction to Western Civilization: 1713-Present**

Human development in the Western world; emphasis upon ideas, institutions, forces and movements shaping contemporary life. Survey of the political, social, economic and diplomatic history of Europe from the opening of the Enlightenment to the present.

Credits: 5  
GUR Attributes: HUM

### **HIST 121 - World History to 500**

Survey of major topics in World History from the origins of civilization to 500 AD.

Credits: 5  
GUR Attributes: HUM

### **HIST 123 - World History, 1500 to the Present**

Survey of major topics in World History from 1500 to the present.

Credits: 5  
GUR Attributes: HUM

### **HIST 131 - Going to College in America**

This course offers students an historical overview of the development of the American college and an exploration of current questions facing the future of college education.

Credits: 5  
GUR Attributes: HUM

### **HIST 151 - Communities of the Ancient World**

Examines both the development of ideas of community in ancient world, and the ways in which the writing of histories of ancient communities affects the modern construction of identity. Involves analysis of primary documents from antiquity as well as discussions of the methods used in historical studies. We will focus on the related topics of the developments of civilization in Mesopotamia and Greece, and the transmission of ideas in the ancient world.

**Prerequisites & Notes:** Entering Freshman.  
Credits: 5  
GUR Attributes: HUM

### **HIST 152 - Being Human**



# HISTORY

Introduces students to the core question of the humanities: what does it mean to be a human being? We will read a variety of authors from ancients to recent fiction. Throughout we will explore the meaning of human existence and its relation to education.

**Prerequisites & Notes:** First Year Students  
Credits: 5  
GUR Attributes: HUM

## **HIST 158 - Race and Identity in Modern America**

Explores the ways in which race and identity have been formulated in American history and investigates the practice of history and its relationship to other disciplines. Involves examinations of primary documents as well as discussions of methods used in historical analysis. Topical coverage will span the last century and a half of American history.

**Prerequisites & Notes:** freshman standing  
Credits: 4  
GUR Attributes: BCGM

## **HIST 262 - African American History to 1865**

The history of people of African descent in American and U.S. history from the beginnings of the trans-Atlantic Slave trade through the Civil War.

Credits: 5  
GUR Attributes: BCGM

## **HIST 263 - African Americans Since 1865**

Introduces students to the experiences of African American women and men since the Civil War, with special emphasis on the Civil Rights and Black Power movements.

**Prerequisites & Notes:** HIST 104  
Credits: 5  
GUR Attributes: BCGM

## **HIST 265 - Lesbian, Gay, Bisexual, and Transgender Experiences in U.S. History**

Examines the experiences of lesbians, gay men, bisexuals, and transgendered people in U.S. history from the mid-nineteenth century to the present, with emphasis on identity and community

formation and civil rights and liberation movements.

Credits: 5  
GUR Attributes: BCGM

## **HIST 273 - Latin America: 1492-1824**

Political, economic and sociocultural trends from the Spanish conquest through the independence movements.

Credits: 5  
GUR Attributes: ACGM

## **HIST 274 - Latin America: 1824 to the Present**

Political, economic and sociocultural trends from the post-independence period to the 1990s.

Credits: 5  
GUR Attributes: ACGM

## **HIST 275 - The Indian in American History**

Events and persons critical to history of North American Indians; review of interpretations of Indian cultures and history.

**Prerequisites & Notes:** sophomore standing  
Credits: 5  
GUR Attributes: BCGM

## **HIST 277 - Canada: A Historical Survey**

Canadian history from aboriginal occupation to the present.

Credits: 5  
GUR Attributes: HUM

## **HIST 278 - Multiculturalism in Canada**

Historical development and current issues of multiculturalism in Canada through the lenses of immigration, acculturation, policies, critiques, and the lives of hosts and newcomers.

Credits: 5  
GUR Attributes: BCGM

## **HIST 280 - Introduction to East Asian Civilizations**

The origins and evolution of the political, economic and social aspects of East Asian civilizations

through the early-modern period. Also offered as EAST 201.

**Prerequisites & Notes:** also offered as EAST 201  
Credits: 5  
GUR Attributes: ACGM

**HIST 281 - East Asian History in the Early-Modern and Modern Eras**

Examines political, cultural and social aspects of East Asian civilizations in the early-modern and modern periods. Also offered as EAST 202.

**Prerequisites & Notes:** also offered as EAST 202  
Credits: 5  
GUR Attributes: ACGM

**HIST 285 - African History to 1800**

An introduction to debates and topics concerning the early history of Africa. This course will highlight the movement of people, ideas, and commodities, as well as the development of African political economy, states, and culture from antiquity to 1800.

Credits: 5  
GUR Attributes: ACGM

**HIST 286 - African History, 1800-present**

This course focuses on Africa's history since 1800. The course will address the following major themes: emancipation, colonization, development, medicine, gender, tradition, nationalism, independence, neo-liberalism, poverty, and public health.

Credits: 5  
GUR Attributes: ACGM

**HIST 287 - Introduction to Islamic Civilization**

A thematic approach to religious and cultural aspects of Middle Eastern society; the development of Islam as a body of religious thought and practice; and major cultural movements in the Middle East.

Credits: 5  
GUR Attributes: ACGM

**HIST 289 - Islam in France**

Examines Islamic-French interactions from the eighth century to the present with an emphasis on colonialism, secularization, immigration, and Islamic experience in post WWII France.

Credits: 5

**HIST 310 - History of Ancient Mesopotamia**

Introduction to the culture and history of Mesopotamia from the dawn of civilization to the end of the Roman era. Emphasis on the civilizations of the Fertile Crescent, including the Sumerians, Babylonians, Assyrians, and Hittites.

**Prerequisites & Notes:** HIST 111 or HIST 121 or HIST 151 or LBRL 121 or permission of instructor.  
Credits: 5

**HIST 311 - History of Ancient Egypt**

Introduction to the culture and history of ancient Egypt. Focus on reading and discussing both modern textbooks and translations of ancient texts to gain an understanding of the people behind the pharaohs and the pyramids.

**Prerequisites & Notes:** HIST 111 or HIST 121 or HIST 151 or LBRL 121 or permission of instructor.  
Credits: 5

**HIST 312 - History of Ancient Greece**

Introduction to the culture and history of ancient Greece, including the Bronze Age Aegean. Explores ancient Greece from the beginnings of Minoan civilization on Crete through the rise of Alexander and the Hellenistic world.

**Prerequisites & Notes:** HIST 111 or HIST 121 or HIST 151 or LBRL 121 or permission of instructor.  
Credits: 5

**HIST 313 - History of Ancient Rome**

The political and social development of Rome from village to republic to empire, including an exploration of the whole of the Roman world and its impact on the development of Mediterranean civilization.

**Prerequisites & Notes:** HIST 111 or HIST 121 or 151 or LBRL 121 or permission of instructor.  
Credits: 5

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## **HIST 314 - The American and European Enlightenment**

An intellectual and cultural exploration of the major ideas about human nature and society in the trans-Atlantic American and European Enlightenment.

**Prerequisites & Notes:** One of: HIST 103 or HIST 104 or HIST 111 or HIST 112 or HIST 113 or HIST 152 or HIST 363 or LBRL 123

Credits: 5

GUR Attributes: HUM

## **HIST 315 - Europe in the Early Middle Ages: 300-1050**

Western Europe from late antiquity through the feudal era; particular attention to Roman-barbarian interchanges, Christianization and the rise, apogee and decline of the Carolingian empire.

**Prerequisites & Notes:** HIST 112 or LBRL 122 or instructor permission

Credits: 5

## **HIST 316 - Europe in the High Middle Ages: 1050-1450**

Western Europe from c. 1050 to the end of the Middle Ages; focus on social, economic, religious and cultural developments.

**Prerequisites & Notes:** HIST 112 or LBRL 122 or instructor permission.

Credits: 5

## **HIST 320 - War in the Middle Ages**

War and related phenomena (crusades, Peace of God, Truce of God, laws of war, etc) in medieval Europe, with particular emphasis on the period from 1000-1450.

**Prerequisites & Notes:** HIST 112 or LBRL 122

Credits: 5

## **HIST 321 - Reformation Europe and the Age of Religious Wars**

Surveys the social, cultural and political changes that occurred in Europe after the Reformation shattered Western Christendom and challenged many of the fundamental beliefs and practices of medieval society.

**Prerequisites & Notes:** HIST 112 or LBRL 122

Credits: 5

## **HIST 333 - Imperial Russia: 1689-1917**

Survey of major political, social and economic developments of Russia from Peter the Great to the fall of the Romanov dynasty.

**Prerequisites & Notes:** HIST 113 or HIST 123 or LBRL 123

Credits: 5

## **HIST 334 - 20th Century Russia**

Russian history from 1900 to 2000; emphasis on continuity and change.

**Prerequisites & Notes:** HIST 113 or HIST 123 or LBRL 123

Credits: 5

## **HIST 341 - France 1500-1815**

Analysis of the transformation of France from a multilingual, multicultural kingdom to centralized nation-state; special attention to competing religious confessions, family organization and the state, Louis XIV's policies and the French Revolution and the Napoleonic achievement.

**Prerequisites & Notes:** HIST 112 or HIST 113 or LBRL 122

Credits: 5

## **HIST 342 - France 1815-1945**

Surveys the political, cultural and economic developments in France from the Napoleonic regime to the end of World War II.

**Prerequisites & Notes:** HIST 113

Credits: 5

## **HIST 350 - American Colonial History**

The history of colonial settlements in North America from first contact to the beginnings of the imperial crisis that led to the War for American Independence.

**Prerequisites & Notes:** Sophomore or junior or senior status.

Credits: 5

## **HIST 353 - Latinas/os in the US West**

Examines Spanish colonization of the region that became the western United States, the Mexican social, political, and cultural order, the impact of U.S. conquest on Spanish-speaking people, the emergence of new ethnic and racial identities, and immigration from Mexico and Central America.

Credits: 5

GUR Attributes: BCGM

### **HIST 354 - Energy in American History**

An exploration of the uses and meanings of energy in American history. Topics include development of and transitions between different energy regimes; relations between energy producers and communities; energy and American foreign policy; and social, cultural, and environmental changes linked to changing patterns of energy production and consumption.

**Prerequisites & Notes:** HIST 104 or equivalent.  
Credits: 5

### **HIST 359 - America and Vietnam**

This course will look at the relationship between the United States and Vietnam from 1945 to the present, and examine the role this relationship has played in cultural developments in both countries as well as the emergence of a transnational Vietnamese/American culture. It will provide students with an introduction to postcolonial theory, transnational history, ideas about collective memory, the history of the globalization of culture, and the history of the Vietnamese Diaspora.

**Prerequisites & Notes:** Instructor permission.  
The study abroad co-requisite for this course, HIST 3370, requires a trip to Vietnam.  
Credits: 5  
GUR Attributes: ACGM

### **HIST 360 - History of Religion in Early America**

History of religious traditions, practices, ideas, and movements in America from colonial era to mid-nineteenth century.

**Prerequisites & Notes:** Sophomore or junior or senior status.  
Credits: 5

### **HIST 361 - History of Religion in Modern America**

History of religious traditions, practices, ideas, and movements in America from mid-nineteenth century to the present day.

**Prerequisites & Notes:** Sophomore or junior or senior status.  
Credits: 5

### **HIST 362 - Asian-American History**

Contributions Asian Americans have made to the development of the United States with emphasis on immigration, adaptation, settlement and their struggle for justice and equity. Also offered as AMST 362.

**Prerequisites & Notes:** Junior standing.  
Credits: 5  
GUR Attributes: BCGM

### **HIST 363 - The American Revolution**

This course will cover the causes and consequences of the American Revolution, as well as the experiences of Americans living through it.

**Prerequisites & Notes:** One of the following:  
HIST 103 or HIST 104 or HIST 111 or HIST 112 or HIST 113 or HIST 151 or HIST 155 or HIST 158 or HIST 273 or HIST 274 or HIST 277 or HIST 280 or HIST 285 or HIST 287 or instructor permission.  
Credits: 5

### **HIST 364 - Film As History**

Readings and related films on selected historical topics; subject and course content varies with instructor. Repeatable with various topics.

**Prerequisites & Notes:** Established by each instructor. Consult Classfinder and/or Timetable of Classes before registering.  
Credits: 5

### **HIST 365 - History of Sexuality in the United States**

Examines the changing definitions of sexuality from Ancient America to 1990's.

**Prerequisites & Notes:** Junior or senior status.  
Credits: 5

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## **HIST 366 - The Early American Republic**

This course will introduce students to major themes concerning the development of the American republic following the Revolution until the 1840s.

**Prerequisites & Notes:** HIST 103 or HIST 104 or HIST 111 or HIST 112 or HIST 113 or HIST 121 or HIST 123 or HIST 151 or HIST 155 or HIST 158 or HIST 273 or HIST 274 or HIST 277 or HIST 280 or HIST 285 or HIST 286 or HIST 287 or LBRL 122 or LBRL 123 or instructor permission.

Credits: 5

## **HIST 367 - US Women to 1865**

A survey of the changing social, economic and political roles of women in the United States from settlement through the Civil War.

**Prerequisites & Notes:** HIST 103 or HIST 104

Credits: 5

## **HIST 368 - US Women from 1865**

A survey of the changing social, economic and political roles of women in the United States from the Civil War to the present.

**Prerequisites & Notes:** HIST 103 or HIST 104

Credits: 5

## **HIST 370 - Chinese History to 600 Ad**

The evolution of early civilization and the first stage of high civilization in China to the Tang dynasty.

Credits: 5

## **HIST 372 - Chinese History: 1800 to Present**

China's development from the relative peace and prosperity of the late 18th century through the devastating wars and imperialist incursions of the 19th century to the struggle in the 20th century to create a modern nation-state and regain a position of wealth and power in an often hostile world. Survey ends with the crushing of the pro-democracy movement at Tiananmen in 1989 and its consequences. Chinese materials in translation will help students explore how individuals experienced the major political, cultural, social and economic transformations of the past two centuries.

Credits: 5

## **HIST 374 - Premodern Japanese History**

A general survey tracing the development of Japan's unique civilization from its earliest beginnings through the first half of the 19th century. Japan's diverse artistic, religious and intellectual traditions will be presented in sociohistorical context. Topics include the creation/maintenance of Japan's distinct national identity in the face of cultural borrowing, the role of religion in Japanese society, a critical analysis of the Bushido Way of the Warrior ethic, and the importance of the Imperial Institution for Japanese unity.

**Prerequisites & Notes:** Sophomore or junior or senior status; HIST 280 or HIST 281 or EAST 201 or EAST 202 highly recommended; or permission of instructor.

Credits: 5

## **HIST 375 - Modern Japanese History**

Traces Japan's evolution into a 20th-century world power from the Meiji Restoration (1868 C.E.) to the late Showa period. Sociopolitical history is emphasized. Major topics include the nature of the Meiji Restoration itself; the forces affecting Japan's modernization; internal and external pressures upon the Japanese state (both pre- and post-war); the importance of Tennosei Emperor System; the impact of the Occupation; and Japan's role in the New World Order.

**Prerequisites & Notes:** Sophomore or junior or senior status; HIST 280 or HIST 281 or EAST 201 or EAST 202 highly recommended; or permission of instructor.

Credits: 5

## **HIST 376 - French Colonial Canada: 1534-1763**

A history of people and events making the social, cultural, political and economic structures of Canada under French colonial rule. Themes include colonialism, relationships with First Nations, religion, authority, social structures, gender, war and peace, and the nature of the Conquest.

**Prerequisites & Notes:** Sophomore or junior or senior status.

Credits: 5

**HIST 377 - Japanese History Through Film**

Use of film to examine facets of the Japanese historical experience(s) in different periods. Lectures provide historical context for the films. The time frame extends from the Late Heian period [c. 12 century through the late 20th century].

**Prerequisites & Notes:** Junior or senior status  
Credits: 5

**HIST 379 - Canadian American Relations**

Examination and impacts of significant developments in the political, diplomatic, economic, social and cultural relations between Canada and the United States.

**Prerequisites & Notes:** Sophomore or junior or senior status.  
Credits: 5

**HIST 385 - Pre-Colonial Africa**

Development of African societies and states up to the European partition.

**Prerequisites & Notes:** sophomore standing  
Credits: 5  
GUR Attributes: ACGM

**HIST 386 - Southern Africa**

Development of African and European societies in South Africa and neighboring states, their relations and conflicts.

**Prerequisites & Notes:** sophomore standing  
Credits: 5

**HIST 387 - History of the Jews**

An analysis of Jewish history and culture in medieval and modern Europe and in the classical and modern Middle East culminating in the development of the Jewish state in the Middle East.

**Prerequisites & Notes:** Any from: HIST 111, HIST 112, HIST 113, HIST 287, LBRL 121, LBRL 122, LBRL 123, or any upper-division European or Middle-East history course; junior standing.  
Credits: 5  
GUR Attributes: ACGM

**HIST 388 - East Africa**

Imperialism, African nationalism and recent conflicts in Kenya, Tanzania, Uganda, Somalia and Mozambique.

**Prerequisites & Notes:** sophomore standing  
Credits: 4

**HIST 390 - Topics in History**

Specialized topics in history. The subject of each individual course and its prerequisite will be announced in the Timetable of Classes. Repeatable with different topics.

**Prerequisites & Notes:** junior standing  
Credits: 5

**HIST 391 - History of the Pacific Northwest**

Examines key themes and developments in the history of the Pacific Northwest from the eighteenth century until the present, with specific emphasis on Washington State. Required for certification of secondary school social studies teachers and for Elementary Education Studies majors.

**Prerequisites & Notes:** sophomore standing  
Credits: 5

**HIST 401 - Methods of Research and Analysis**

This course examines diverse primary and secondary sources and teaches students how to analyze them critically. Students also prepare for 499 by crafting a research proposal in their chosen field.

**Prerequisites & Notes:** 3 upper-division history courses.  
Credits: 5

**HIST 405 - The Traditional Middle East**

From the 6th Century to 1800.

**Prerequisites & Notes:** Junior status or instructor permission.  
Credits: 5

**HIST 406 - Middle East, 1800 to the Present**

From 1800 to the present.

**Prerequisites & Notes:** Junior status or

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instructor permission.

Credits: 5

## **HIST 407 - History of the Israel/Palestinian Conflict**

Emergence of Israel and Palestinian national identities and competition for control of territory and state formation.

**Prerequisites & Notes:** Junior status; HIST 113 or LBRL 123 or instructor permission.

Credits: 4

## **HIST 408 - World War II: the European War**

Examines the causes and conduct-political, military and economic-of World War II in Europe and North Africa, 1939-1945, the great mid-20th century conflict between the Axis and Allied powers.

**Prerequisites & Notes:** Junior status

Credits: 5

## **HIST 409 - World War II: the Pacific War**

This course addresses the major causes, campaigns, consequences, and historical controversies related to World War II in the Pacific.

**Prerequisites & Notes:** Junior Status.

Credits: 5

## **HIST 410 - The First Cities: Urbanization in the Ancient World**

Survey of the emergence and development of cities in antiquity, and of daily life in those cities, from the first urban experiences in Mesopotamia through the Greek city-states and up to the imperial city of Rome.

**Prerequisites & Notes:** HIST 111 or HIST 121 or HIST 151 or HIST 310 or HIST 311 or HIST 312 or HIST 313 or LBRL 121 or junior status.

Credits: 5

## **HIST 415 - Undergraduate Seminar in Medieval History**

Focus is on selected topics in medieval European history. Repeatable to a maximum of 8 cr.

**Prerequisites & Notes:** upper-level medieval European history course; instructor permission

Credits: 5

## **HIST 418 - Medieval England**

A study of the social, religious and political development of England from the Anglo-Saxon migrations through the end of the War of the Roses. Charts the transformation of England from a minor, peripheral territory at the beginning of the Middle Ages to a central part of the European order at the end of the period.

**Prerequisites & Notes:** HIST 315 or HIST 316 or any 300-level history course

Credits: 5

## **HIST 421 - Gender in Early Modern Europe**

A thematic study of gender, gender relations and sexual identity in Europe from 1300 to 1800.

**Prerequisites & Notes:** HIST 112. Recommended any 300-or 400-level HIST courses. Junior or senior status.

Credits: 5

## **HIST 422 - History of Medieval Italy**

A study of the most sophisticated and culturally influential region of medieval Europe. Primary focus on the communes of northern and central Italy in the period of 1050-1347, with some treatment also of the Lombard, Carolingian and Ottonian periods, and of the radically different patterns of development in southern Italy.

**Prerequisites & Notes:** HIST 112 or HIST 315 or HIST 316 or LBRL 122

Credits: 5

## **HIST 428 - Modern Europe: 1914-1945**

The First World War and the results of that conflict, attempts at world organization, the states of Europe between the wars, the Second World War.

**Prerequisites & Notes:** junior standing

Credits: 5

## **HIST 432 - Germany: 1914 to the Present**

The impact of World War I; the Weimar Republic, the Third Reich and the period since 1945.

**Prerequisites & Notes:** junior standing

Credits: 5

**HIST 440 - Britain: 1688 to the Present**

Political, social, economic and intellectual history of Britain from the Glorious Revolution to the present; development of parliamentary, economic and social institutions.

**Prerequisites & Notes:** HIST 113 or LBRL 123 or equivalent  
Credits: 5

**HIST 447 - History of the Sciences of Nature**

Examines the historical roots and development of the sciences of nature in Europe and the United States, 1600-2000. Will combine history of science with social and cultural history. Will be most attentive to those developments that shaped the emergence of environmental sciences.

**Prerequisites & Notes:** HIST 103 or HIST 104 or HIST 113; junior standing  
Credits: 5

**HIST 448 - European Intellectual History**

A study of the evolution of European thought from the Middle Ages to the present with primary emphasis on the era since 1700.

**Prerequisites & Notes:** HIST 113 or LBRL 123  
Credits: 5

**HIST 449 - East Central Europe and the Balkans Since 1900**

The place of the East European nations, Poland, the Czech Republic, Slovakia, Hungary, the Balkan states, in European and world politics. Offered in alternate years.

**Prerequisites & Notes:** junior standing  
Credits: 5

**HIST 452 - U.S. Intellectual History, 1776-1900**

This class will introduce students to major thinkers that shaped the development of the United States between the American Revolution and the turn of the 20th century. The course will ask students interpret the writings of American intellectuals in relation to each other and to their historical context.

**Prerequisites & Notes:** Junior or senior status  
Credits: 5

**HIST 453 - U.S. Intellectual History, 1900-Present**

Introduction to major thinkers who shaped the development of the United States during the 20th century. Students will interpret the writings of American intellectuals in relation to each other and to their historical context.

**Prerequisites & Notes:** Junior or senior status  
Credits: 5

**HIST 454 - The Civil War and Reconstruction**

Development of sectionalism; problems of war in North and South; efforts toward reunion; the failure of Reconstruction.

**Prerequisites & Notes:** junior standing  
Credits: 5

**HIST 456 - Protest and Rebellion in Early America**

This is an advanced seminar course that will examine the experiences of protest and rebellion in early America.

**Prerequisites & Notes:** Junior or senior status.  
Credits: 5

**HIST 457 - Crime and Punishment in Early America**

This is an advanced seminar that examines the experiences of crime and punishment in early America.

**Prerequisites & Notes:** Junior or senior status.  
Credits: 5

**HIST 459 - The United States Since 1941**

Internal and international consequences of the rise of the United States as a world power since World War II.

**Prerequisites & Notes:** junior standing  
Credits: 5

**HIST 460 - American Environmental History**



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History of the role and place of nature in American culture from the colonial era to the present, with some comparisons to significant and kindred human-nature interactions elsewhere. Will emphasize the history of cultural constructions of nature, on American perceptions and conceptions of nature, on the transnational character of many environmental problems and ideas, and on the environmental consequences of this.

**Prerequisites & Notes:** HIST 103 or HIST 104; junior standing  
Credits: 5

## **HIST 461 - US Urban History**

Examines the development of cities and suburbs in the United States, primarily since the Civil War; special attention to the importance of race, ethnicity and gender in the shaping of urban cultures.

**Prerequisites & Notes:** HIST 104; junior standing  
Credits: 5

## **HIST 462 - Industrialization and Reform: US 1865-1920**

Course examines the emergence of the US as a major industrial power in the late nineteenth century, the major cultural, political and social changes brought by industrialization. Course concludes by exploring the reform movements generated by industrialization and American participation in World War I.

**Prerequisites & Notes:** HIST 104 plus four additional credits in US history  
Credits: 5

## **HIST 464 - Saturday Night Live and the United States in the 1970s**

Examines the social, cultural, economic, and political history of the United States in the 1970s by focusing on the iconic television program Saturday Night Live, which premiered in the fall of 1975 and quickly became a cultural institution.

**Prerequisites & Notes:** HIST 104  
Credits: 5

## **HIST 467 - American Cultural History: 1790-1880**

Topics in American cultural history, late 18th to the late 19th century, with some attention to recent developments in methodology and scholarship in cultural history.

**Prerequisites & Notes:** Junior status.  
Credits: 5

## **HIST 470 - World History of Democracy, 19th and 20th Centuries**

This seminar reflects upon the ways in which different historical actors have shaped the meanings and practices of democracy since the late 18th century in a variety of geographical locations across the world.

**Prerequisites & Notes:** HIST 123 or HIST 274 or HIST 428  
Credits: 5

## **HIST 474 - U.S. Latin American Relations**

This course explores the political, economic, social and cultural repercussions of the US-Latin American relations from the mid-19th century to the present.

**Prerequisites & Notes:** HIST 123 or HIST 274 or HIST 428 or instructor's permission.  
Credits: 5

## **HIST 476 - World Histories of the Middle Class since the 19th century**

This reading seminar reflects upon the ways in which middle class people have shaped - and have been shaped by - the making of modern societies since the late 19th century in a variety of geographical locations across the world.

**Prerequisites & Notes:** HIST 123 or HIST 274 or HIST 428 or permission of instructor  
Credits: 5

## **HIST 477 - World War I & Canadian Society**

An examination and interrogation of the transformative power of Canada's first modern war upon her social, cultural, and national development, with special attention to gender, class, ethnicity, crisis in French-English relations, nationalist ideologies, cultures of war, and

construction of collective memory.

**Prerequisites & Notes:** HIST 277 or permission of instructor and junior status.

Credits: 5

### **HIST 478 - History of Nationalism in French Canada**

Historical development of nationalism in French Canada from the 1837-38 Patriot Rebellion and development of the Metis nation through the 1970 FLQ terrorist crisis to the present Quebec sovereigntist movement for independence.

Credits: 5

### **HIST 479 - Medieval and Early-Modern Chinese History**

A comprehensive exploration of key themes and topics in the social, cultural, economic, and political histories of medieval and early-modern China (roughly the thousand years spanning the sixth to sixteenth centuries).

**Prerequisites & Notes:** HIST 371 or HIST 280 or EAST 201.

Credits: 5

### **HIST 480 - Modern Chinese Social History**

A comprehensive exploration of key themes and topics in the social, cultural, economic, and political histories of late-imperial and modern China. Long-term processes such as China's interaction with the West, the demise of the imperial system and the creation of a Western-influenced structure of government, the globalization of the economy, the rise of a Western-oriented bourgeoisie, and an agrarian crisis form the backdrop to the Opium Wars, the Taiping Rebellion, the Boxer Uprising, the 1911 Revolution, the Chinese Renaissance, and the rise of the Nationalist and Communist parties.

**Prerequisites & Notes:** HIST 281 or HIST 372 or EAST 202.

Credits: 5

### **HIST 481 - The Chinese Revolution**

Explores key passages in China's long revolutionary struggle, beginning with Sun Yat-sen and the 1911 Revolution and ending with the pro-

democracy movement and events at Tiananmen in 1989. The May 4th Movement, Chiang Kai-shek's National Revolution of 1925-27, Mao Zedong's peasant-based Communist revolution, and the Cultural Revolution are among the events to be explored from social and cultural, as well as political, perspectives. First-person accounts such as Edgar Snow's *Red Star Over China*, primary documents, classic and revisionist Western accounts, Chinese literature in translation, and films like *'Yellow Earth'* and *'Farewell, My Concubine'* will be among the materials that students will use to explore this vast and still-controversial topic.

**Prerequisites & Notes:** HIST 372 or HIST 281 or EAST 202.

Credits: 5

### **HIST 483 - Early Modern Japan**

This course investigates the Edo period in depth by looking at Tokugawa society. Daily life as well as legal codes, official dogma and ideologies are examined. Topics include Tokugawa religions and politics, popular culture, Western Studies, Tokugawa social structure, education, women's political involvement, Bushido, the family, art and literature, science, and the economic sphere.

**Prerequisites & Notes:** Junior status and HIST 374 or HIST 375; or instructor permission.

Credits: 5

### **HIST 484 - Women in Japanese History**

Examines the diverse roles and fluctuating status of Japanese women from the beginnings of history to modern times. Possible topics: women and Japanese religions, women's political involvement, education and indoctrination, family roles, Japanese feminism, contributions to art and literature, and economic roles.

**Prerequisites & Notes:** Junior status and HIST 374 or HIST 375; or instructor permission.

Credits: 5

### **HIST 485 - Japanese Military History: Samurai Fact and Fiction**

Evolution and influence of Japan's military from the beginnings of history to modern times. Dispels popular misconceptions about Japanese warriors

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and Japan's martial traditions, and addresses military realities as well as formal ideologies. Topics include: the evolution of the military class, important battles, translated war tales (gunki monogatari), the evolution of military skills and technology, the military's political involvement over time, the myth of Bushido, martial traditions cultural contributions and influences, and the relationship between Japan's religious and martial spheres.

**Prerequisites & Notes:** Junior status and HIST 374 or HIST 375, or instructor permission.  
Credits: 5

### **HIST 486 - Religion in Japanese History**

An examination of the symbiotic relationship between state and religion throughout Japanese history. Although basic doctrines will be considered, emphasis of the course will be sociopolitical rather than metaphysical. Examples of topics: the formation of the Shinto tradition, Millenarianism, Buddhist institutions and temporal power, women and evolving religious tenets, European missionaries and Sengoku politics, Yasukunijinja and modern politics, and the religio-political nature of the Imperial institution.

**Prerequisites & Notes:** Junior status and HIST 374 or HIST 375, or instructor permission.  
Credits: 5

### **HIST 488 - Modern Egypt, Libya and the Nile Valley**

The emergence of modern states in Northeast Africa including Egypt, Libya, the Sudan, Ethiopia and Somalia in an age of imperialism and nationalism.

**Prerequisites & Notes:** junior standing  
Credits: 5

### **HIST 490 - Advanced Topics in History**

In-depth reading in primary and secondary literature on a particular historical problem or topic. Topics will vary. Repeatable with different topics.

**Prerequisites & Notes:** Junior or senior status. Recommended: any 100, 200, 300, 400 level History courses.

Credits: 5

### **HIST 493 - Public History Seminar**

Introduction to concepts and issues inherent in public history as a preparation for understanding the uses of history beyond academe and/or the K-20 classroom.

**Prerequisites & Notes:** History Major or Minor; Anthropology Major or Minor; Public History Minor; or Permission of instructor.  
Credits: 5

### **HIST 494 - Public History Internship**

Internship at an approved location such as, but not limited to, as historical society, museum, archives, library, government agency, or history or related journal or press. In certain instances could include the development of public history projects for corporations or individuals as well as fieldwork in approved areas. Repeatable to a maximum of 10 credits.

**Prerequisites & Notes:** HIST 493 - Public History Seminar and/or permission of Faculty Liaison.  
Credits: 3-5

### **HIST 498 - Editing History Writings for the Profession**

Introduction to participation in professional conferences and publishing through the preparation and editing of conference papers for presentation and potential publication. S/U grading.

**Prerequisites & Notes:** History Majors, History Minors, or Graduate Status in History.  
Credits: 2  
Grade Mode: S/U

### **HIST 499 - Historical Research**

Research and writing of a formal paper on a topic developed by the student. Students normally work under an instructor within the field of their choice. Limited to declared history majors with junior status. Also offered as EAST 302 (selected sections only). Departmental pre-registration is required and occurs each spring. Writing proficiency course.

**Prerequisites & Notes:** One upper-division course in field of topic.

Credits: 5

**HIST 505 - Historical Theory and Method**

A survey of current historical practice, including quantitative methods, deconstruction, economic history, comparative history, and intellectual and cultural history. Readings in current practice and papers are expected of students.

Credits: 4

**HIST 512 - The Ancient World**

Selected topics in ancient history and the historiography of the ancient world. Repeatable to a maximum of 8 credits.

**Prerequisites & Notes:** One upper level course in ancient history or instructor permission.

Credits: 4

**HIST 515 - Medieval History**

Selected studies from the Fall of Rome to the late Middle Ages. Repeatable.

**Prerequisites & Notes:** One upper level course in medieval history or instructor permission.

Credits: 4

**HIST 520 - Renaissance and Reformation**

Readings in the history of Europe from 1337-1848. Repeatable.

Credits: 4

**HIST 525 - History and Principles of Archives and Records Management**

An overview of the characteristics and uses of records and archival materials, and of the historical development, essential principles, and major functions of the archives and records management professions.

Credits: 4

**HIST 526 - Selection and Appraisal**

Examination of theory and methodology of archival collecting policies, selection, acquisitions, and appraisal of archival records.

**Prerequisites & Notes:** HIST 525

Credits: 4

**HIST 528 - Reference, Access and Outreach**

Examination of theory and methodology of archival access policies, reference services, outreach, and public advocacy.

**Prerequisites & Notes:** HIST 525

Credits: 4

**HIST 530 - Arrangement and Description of Archives**

Detailed examination of archival arrangement and description systems, including both manual and automated applications, the USMARC cataloging format, Encoded Archival Description and other access systems.

**Prerequisites & Notes:** HIST 525.

Credits: 4

**HIST 532 - Records and Information Management**

Detailed examination of principles, methodology and current issues in managing records in office information systems, including requirements for managing electronic records and for developing and applying automated techniques.

**Prerequisites & Notes:** HIST 525

Credits: 4

**HIST 534 - Preservation of Archival Materials**

Examination of issues in managing a preservation, conservation and disaster preparedness program for archives; and lectures, demonstrations and practical exercises in the conservation and repair of archival media.

**Prerequisites & Notes:** HIST 525

Credits: 4

**HIST 536 - Internship in Archives and Records Management**

Professional internship in a cooperating agency or organization. S/U grading.

**Prerequisites & Notes:** HIST 530 or HIST 532.

Credits: 8-10

Grade Mode: S/U

## HISTORY

### **HIST 538 - Advanced Seminar in Archives and Records Management**

Readings in selected aspects of archives administration and the management of current records and information systems.

**Prerequisites & Notes:** HIST 536 or permission of instructor.  
Credits: 4

### **HIST 539 - Research and Writing Seminar: Archives and Records Management**

Original research on a topic in Archives and Records Management, including use of primary sources and/or original survey research; interpretation and analysis; and writing an original essay suitable for publication, either for a print journal or online journal/web publication forum. Year-long course, 4 credits for each of 3 academic terms. Repeatable to a maximum of 12 credits including original course.

**Prerequisites & Notes:** Instructor permission  
Credits: 4

### **HIST 540 - Modern European History**

Selected topics in European history and historiography since the sixteenth century. Repeatable with different topics.

**Prerequisites & Notes:** Graduate status.  
Credits: 4

### **HIST 546 - World's Fairs and Other Spectacles**

An examination into the commercial, political, and cultural dimensions of mass-attended spectacles in the modern world with a special focus on the relations between developed and underdeveloped peoples, both indigenous and foreign. Readings focus on theories of material culture; selections from scholarly work on the meaning of 'spectacle' and scholarly popular studies of World's Fairs, Olympics, and other 'meta-events.' A research paper, focusing on Third World, European or American fields is required.

Credits: 4

### **HIST 550 - Colonial American History**

Selected topics in American colonial history through the mid-18th century. Repeatable to a maximum of 12 credits.

**Prerequisites & Notes:** Graduate status and permission of instructor.  
Credits: 4

### **HIST 551 - Early American Republic: 1783-1840**

This course will introduce students to major readings and issues in the historiography of the Early American Republic.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
Credits: 4

### **HIST 553 - American Environmental History**

Readings seminar focusing on the literature on the history of the interaction of nature and society in America. Concentration on methods in environmental history. Also offered as ESTU 553.

**Prerequisites & Notes:** Graduate status in history or permission of instructor.  
Credits: 4

### **HIST 554 - World Environmental History**

The organizing theme of this seminar will be that of 'exchange' - biological and cultural - of organisms and ideas about what to do with them. By focusing on the problem of the history of exchanges of organisms and ideas about the environment around the globe, the seminar will at the same time illuminate other themes in world environmental history. Also offered as ESTU 554.

Credits: 4

### **HIST 555 - US Women's History**

Selected readings in US women's history.

Credits: 4

### **HIST 556 - Topics in Latin American History**

Selected readings in Latin American history. Repeatable.

**Prerequisites & Notes:** Graduate status.

Credits: 4

### **HIST 557 - The American Revolution**

This course will introduce students to changing interpretations of the American Revolution. In the process, students will be exposed to broader changes in the historical profession. Repeatable to a maximum of 8 credits.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
Credits: 4

### **HIST 558 - 20th-Century American History**

Topics in 20th-century American history.

**Prerequisites & Notes:** undergraduate preparation in American history or instructor permission  
Credits: 4

### **HIST 559 - Topics in American Religious History**

Selected topics in the history of religion in America from the colonial period through the 20th century. Repeatable to 12 credits.

**Prerequisites & Notes:** Graduate status or instructor permission  
Credits: 4

### **HIST 560 - Readings in North American Indian History**

Readings on the history and historiography of Native North America.

**Prerequisites & Notes:** Graduate status.  
Credits: 4

### **HIST 571 - Culture and Identity in Canadian History**

Examination of the constructions and meanings of various Canadian identities and their cultural origins and expressions, emphasizing their historical and historiographical significance.

**Prerequisites & Notes:** Graduate status.  
Credits: 4

### **HIST 582 - Topics in East Asian History**

Selected topics in the history and historiography of China and/or Japan in the traditional and/or modern periods. Repeatable under advisement.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
Credits: 4

### **HIST 587 - Seminar in Middle Eastern History**

Topics in Middle Eastern history.

**Prerequisites & Notes:** undergraduate preparation in Middle-East history or instructor permission  
Credits: 4

### **HIST 590 - Directed Historical Research**

Directed research in historical topics by arrangement with the instructor. Counts as a writing seminar and may be repeated once with a different topic.

**Prerequisites & Notes:** Enrollment limited to non-thesis MA students  
Credits: 4

### **HIST 690 - Research and Writing Seminar: Thesis**

Original research, including use of primary source materials and bibliographic aids, interpretation and/or textual criticism, and writing an original research thesis. May require a knowledge of auxiliary sciences, a foreign language, or the use of statistics or computer programming, depending on the topic of the research. Repeatable to a maximum of 12 credits.

Credits: 2-12

# Journalism

## Introduction

The journalism department offers a degree program, the Bachelor of Arts, and also maintains a commitment to the liberal arts tradition by offering courses in support of the General University Requirements (GURs) and other departments.

Journalism majors and minors pursue theoretical and practical communication studies in a liberal arts setting. Students of journalism gain practical experience on Western's award-winning student media, and majors additionally take field internships with newspapers, magazines, broadcast stations, public relations agencies and other professional organizations.

Courses in the news-editorial sequence emphasize the gathering, writing and ethical presentation of news. Understanding news processes and learning to report with accuracy, clarity and precision prepares graduates to communicate swiftly and lucidly in a changing world.

Courses in the public relations sequence follow the news-editorial emphasis, adding communication skills important for careers in this rapidly growing field.

Courses in the visual journalism sequence prepare students in the concepts, professional practices and course work applications of visual components of news: photojournalism, information graphics, video and audio clips, mapping and typography.

A combined major, environmental studies/journalism, is currently in moratorium, and has been offered in cooperation with Huxley College of the Environment.

Students are challenged to explore a range of other disciplines and to seek depth in one or more specialized areas through concentrations, major-minor combinations or even double majors.

Graduates find careers in newspapers, magazines, radio, television, publishing, advertising, public relations, teaching, and throughout government and industry wherever communications skills, with general knowledge, are vital.

Because enrollment in the journalism department is limited, students considering a major should consult a journalism advisor before embarking on classes beyond JOUR 190 and JOUR 207.

## Faculty

**PEGGY WATT** (2004) Chair and Associate Professor. BA, Western Washington University; MLA, Stanford University.

**CAROLYN DALE** (1977) Associate Professor. BA, MC, University of Washington.

**JOHN M. HARRIS** (1998) Associate Professor. BA, Wittenberg University; MS, University of Oregon; PhD, University of Washington.

**BRAD HOWARD** (2005) Associate Professor. BA, Christopher Newport College; MA, PhD, University of Delaware.

**JENNIFER KELLER** (2007) Associate Professor. BA, Kenyon College; MA, Salisbury State University; MA, Syracuse University.

**MARIA MCLEOD** (2012) Assistant Professor. BS, Eastern Michigan University; MFA, University of Pittsburgh.

**CAROLYN NIELSEN** (2008) Associate Professor. BS, California Polytechnic State University; MSJ Northwestern University

**SHEILA WEBB** (2008) Associate Professor. BA, University of Michigan; MA's, University of Wisconsin; PhD, University of Wisconsin

## Declaration of Major

The Department of Journalism offers three sequences leading to a Bachelor of Arts degree: a news-editorial sequence, a public relations sequence and a visual journalism sequence.

Students seeking admission to the major should see a member of the journalism faculty for advising and obtain a copy of admission requirements. Admission to the department and to specific courses may be limited.

Students seeking admission to the major must meet the following conditions:

- Have at least 30 college credits with a cumulative 2.50 grade point average
- Pass JOUR 207 with a B- or better (transfer students must meet the same requirement for any course accepted as an equivalent of JOUR 207)
- Complete with a B- or better one journalism staff course
- Submit a letter of application

Students meeting qualifications but not admitted because of space limitations will be listed as pre-majors and admitted as space allows.

Majors must maintain a 2.50 grade point average both overall and in journalism courses. Students below that average for two consecutive quarters will be placed on probation; a third consecutive quarter will result in removal from the major.

For additional details on admission to the major, consult the department manager or any journalism faculty member.

## Other Departmental Information

### *Mid-Program Checkpoint*

Students seeking to complete a BA degree in journalism within a four-year time span should have completed the following courses by the start of their junior year. Major omissions from this list will make it difficult or impossible to complete this degree within two additional years.

- JOUR 190
- JOUR 207
- ENG 101
- 100- and 200-level GURs

## Bachelor of Arts

### **Environmental Studies/Journalism, BA (In Moratorium)**

Combined major offered by the Department of Journalism, College of Humanities and Social Sciences and the Department of Environmental Studies, Huxley College of the Environment.

#### **120-126 credits (preparatory courses and major)**

This program is not currently accepting new students.

For further information contact the Department of Environmental Studies, Western Washington University, 516 High Street, Bellingham, WA 98225-9085, Phone: 360-650-3277, Email: Diane.Knutson@wwu.edu  
 OR contact the Department of Journalism, Western Washington University, 516 High Street, Bellingham, WA 98225-9197, Phone: 360-650-4436, Email: Alexis.Tahiri@wwu.edu.

### **Introduction/What is the Study of Environmental Studies and Journalism?**

Students wishing to complete an Environmental Studies major in four years should complete all GUR requirements in their first two years. Prospective environmental science majors are strongly advised to take additional preparatory course work that provides a strong background in chemistry, biology and mathematics. The preparatory courses listed below may be used to fulfill both Huxley College and GUR requirements.



## Why Consider an Environmental Studies/Journalism Major?

### Contact Information

#### Journalism Department Chair

Peggy Watt  
Communications Facility 253  
360-650-2338  
Peggy.Watt@www.edu

#### Environmental Studies Department Chair

Michael Medler  
Arntzen Hall 210  
360-650-3173  
Michael.Medler@www.edu

### Sample Careers

### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. All preparatory courses required for admission should be completed on a lettered or numeric grading scale, not P/NP, and must be completed with a grade of C- or better.

### Requirements

#### Preparatory Courses (36-42 credits)

##### One course from:

- BIOL 101 - Introduction to Biology
- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- CHEM 121 - General Chemistry I
- ECON 206 - Introduction to Microeconomics
- ENVS 203 - Physical Geography

##### One course from:

- MATH 114 - Precalculus I or equivalent or higher
- MATH 156 - Algebra With Applications to Business and Economics

##### Any BCOM and CCOM GUR requirement course

##### Any PLSC course

##### Additional Lab Science course in BIOL, CHEM, GEOL or PHYS

##### One Introductory Statistics course from:

- ANTH 335 - Quantitative Methods in Anthropology
- DSCI 205 - Business Statistics
- FAIR 232P - User-Friendly Statistics
- MATH 240 - Introduction to Statistics

#### Major (84 credits)

- ENVS 412 - Environmental Journalism
- ENVS 413 - The Planet Staff
- JOUR 190 - Introduction to Mass Media
- JOUR 207 - Newswriting completed with a grade of B- or better
- JOUR 307 - Reporting
- JOUR 309 - Editing
- JOUR 350 - Mass Media Law

- JOUR 430 - Field Internship
- JOUR 450 - Advanced Reporting
- JOUR 480 - Senior Seminar
- One course from:
  - ESCI 302 - Environmental Pollution
  - ESCI 310 - Environmental Systems
  - ESCI 325 - Fundamentals of Ecology
  - ESCI 392 - Introduction to Global Change
- One course from:
  - ESCI 321 - Oceanography
  - ESCI 330 - Natural History of the Pacific Northwest
  - ESCI 333 - Introduction to Environmental Toxicology
  - ESCI 361 - Water Quality
  - ESCI 463 - Wetlands for Wastewater Treatment
- One course from:
  - ENVS 410 - Agroecology and Sustainable Agriculture
  - ENVS 430 - Borderlands
  - ENVS 472 - Planning Studio
  - ENVS 493 - Environmental Impact Assessment
  - ENVS 496 - Environmental Stewardship
  - ESCI 470 - Ecological Restoration
  - ESCI 490 - Environmental Risk Assessment
  - ESCI 491 - Oceanography of Puget Sound
  - ESCI 493 - Environmental Impact Assessment
- One course from:
  - JOUR 214 - Newspaper Staff
  - JOUR 314 - Newspaper Staff
  - JOUR 414 - Newspaper Staff
  - JOUR 415 - Newspaper Editorship
- One course from:
  - JOUR 321 - Periodical Staff
  - JOUR 421 - Periodical Staff
  - JOUR 422 - Periodical Editorship
- One course from:
  - JOUR 214 - Newspaper Staff
  - JOUR 314 - Newspaper Staff
  - JOUR 321 - Periodical Staff
  - JOUR 414 - Newspaper Staff
  - JOUR 415 - Newspaper Editorship
  - JOUR 421 - Periodical Staff
  - JOUR 422 - Periodical Editorship
  - ENVS 412 - Environmental Journalism
  - ENVS 413 - The Planet Staff
  - ENVS 414 - Editing the Planet \*

\* *ENVS 414 offered only to Environmental/Journalism Majors - Editor status.*
- Electives under advisement (11-18 credits):
  - ECON 383 - Environmental Economics
  - ECON 384 - Energy Economics

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- ECON 483 - Resource Economics  
ESCI 300- and 400-level  
ENVS 300- and 400-level  
FAIR 300- and 400-level
- HIST 480 - Modern Chinese Social History  
JOUR 300- and 400-level
- PLSC 346 - Politics of Inequality
- PLSC 347 - Race, Politics and Public Policy
- PLSC 390 - The Politics of Development
- PLSC 420 - Environmental Politics
- SOC 321 - Demography

## Journalism - Public Relations, BA

Department of Journalism, College of Humanities and Social Sciences

### 77 Credits

#### Introduction/What is the Study of Journalism?

Journalism is the work of supplying content, primarily news, for the ever-expanding world of mass media. Journalists are responsible for gathering information, analyzing and editing it for a mass audience, and dispensing it using some form of media platform. Increasingly the methods of distribution have become more complex, but the basic mission of a journalist remains the same: to serve the public by finding, defining, writing and editing information.

Today's journalist may be found on traditional publications such as newspapers and magazines, broadcast outlets and specialized publications. He or she may utilize online delivery or other forms of electronic communication. The trained journalist may use her or his skills in the expanding field of public relations, working to serve as a bridge between those with a message to communicate and the journalist who seeks information.

#### Why Consider a Public Relations Concentration in Journalism Major?

Journalism majors pursue theoretical and practical communication studies in a liberal arts setting. Students of journalism gain practical experience on Western's award-winning student media, and majors additionally take field internships with newspapers, magazines, broadcast stations, public relations agencies and other professional organizations.

Courses in the public relations sequence follow the news-editorial emphasis, adding communication skills important for careers in this rapidly growing field.

#### Contact Information

##### Department Chair

Peggy Watt  
Communications Facility 253  
360-650-2338  
Peggy.Watt@wwu.edu

##### Academic Department Manager

Karen Smith  
Communications Facility 255  
360-650-3252  
Karen.Smith@wwu.edu

#### Sample Careers

Reporter | Editor | Customer Service Representative | Public Relations Specialist | Community Relations Director | TV News Anchor | Speech Writer | Advertising Copywriter | Copywriter | Market Research Analyst | Lobbyist | Photojournalist | Designer | Multimedia Producer | All careers involving communication

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

**Admissions:** For admission to the major, a student must have completed the following requirements:

- Complete at least 30 college credits with a cumulative 2.50 grade point average
- Pass JOUR 207 with a B- or better
- Complete one Journalism staff course with a B- or better
- Submit a letter of application

Students meeting qualifications but not admitted because of space limitations will be listed as pre-majors and admitted as space allows.

**Application deadlines:** Deadlines for pre-major/major declaration are posted in the Journalism Department each quarter .

See additional details in the Journalism Department's Declaration of Major.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. Cumulative GPA of 2.50 or higher in major is required.

## Requirements

- JOUR 190 - Introduction to Mass Media
- JOUR 207 - Newswriting
- JOUR 309 - Editing
- JOUR 330 - Principles of Public Relations
- JOUR 350 - Mass Media Law
- JOUR 351 - Mass Media Ethics
- JOUR 380 - Advanced Public Relations Writing and Techniques
- JOUR 404 - Feature Writing
- JOUR 407 - Public Relations Case Studies
- JOUR 430 - Field Internship
- JOUR 440 - Public Relations Research and Campaigns
- JOUR 480 - Senior Seminar
- Three quarters on publication staff:
  - One course from list (a):
  - JOUR 214 - Newspaper Staff
  - JOUR 314 - Newspaper Staff
  - JOUR 414 - Newspaper Staff
  - JOUR 415 - Newspaper Editorship
  - One from list (b):
  - JOUR 321 - Periodical Staff
  - JOUR 421 - Periodical Staff
  - JOUR 422 - Periodical Editorship
  - and one additional from (a) or (b), or:
  - ENVS 413 - The Planet Staff
- 12 upper-division credits in another academic area, under departmental advisement
- A maximum of 73 journalism course credits may be applied to the 180-credit minimum for graduation

## Journalism - Visual Journalism, BA

Department of Journalism, College of Humanities and Social Sciences

### 82 Credits

#### Introduction/What is the Study of Journalism?

Journalism is the work of supplying content, primarily news, for the ever-expanding world of mass media. Journalists are responsible for gathering information, analyzing and editing it for a mass audience, and dispensing it using some form of media platform. Increasingly the methods of distribution have become more complex, but the basic mission of a journalist remains the same: to serve the public by finding, defining, writing and editing information.

Today's journalist may be found on traditional publications such as newspapers and magazines, broadcast outlets and specialized publications. He or she may utilize online delivery or other forms of electronic communication. The trained journalist may use her or his skills in the expanding field of public relations, working to serve as a bridge between those with a message to communicate and the journalist who seeks information.

#### Why Consider a Visual Journalism Concentration in the Journalism Major?

Journalism majors pursue theoretical and practical communication studies in a liberal arts setting. Students of journalism gain practical experience on Western's award-winning student media, and majors additionally take field internships with newspapers, magazines, broadcast stations, public relations agencies and other professional organizations.

Courses in the visual journalism sequence prepare students in the concepts, professional practices and course work applications of visual components of news: photojournalism, information graphics, video and audio clips, mapping and typography.

#### Contact Information

##### Department Chair

Peggy Watt  
Communications Facility 253  
360-650-2338  
Peggy.Watt@wwu.edu

##### Academic Department Manager

Karen Smith  
Communications Facility 255  
360-650-3252  
Karen.Smith@wwu.edu

#### Sample Careers

Reporter | Editor | Customer Service Representative | Public Relations Specialist | Community Relations Director | TV News Anchor | Speech Writer | Advertising Copywriter | Copywriter | Market Research Analyst | Lobbyist | Photojournalist | Designer | Multimedia Producer | All careers involving communication

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process)

**Admissions:** For admission to the major, a student must have completed the following requirements:

- Complete at least 30 college credits with a cumulative 2.50 grade point average
- Pass JOUR 207 with a B- or better
- Complete one Journalism staff course with a B- or better
- Submit a letter of application

Students meeting qualifications but not admitted because of space limitations will be listed as pre-majors and admitted as space allows.

**Application deadlines:** Deadlines for pre-major/major declaration are posted in the Journalism Department each quarter.

See additional details in the Journalism Department's Declaration of Major.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. Cumulative GPA of 2.50 or higher in major is required.

#### Requirements

- JOUR 190 - Introduction to Mass Media
- JOUR 207 - Newswriting
- JOUR 305 - Photojournalism
- JOUR 307 - Reporting
- JOUR 309 - Editing
- JOUR 346 - Introduction to Visual Journalism
- JOUR 350 - Mass Media Law
- JOUR 351 - Mass Media Ethics
- JOUR 370 - Digital Media in Journalism
- JOUR 430 - Field Internship
- JOUR 446 - Advanced Visual Journalism
- JOUR 480 - Senior Seminar
- One course from:
  - ART 109 - Visual Dialogue
  - DSGN 211 - Foundations of Visual Communication
- Three quarters on publication staff:
  - One course from list (a):
    - JOUR 214 - Newspaper Staff
    - JOUR 314 - Newspaper Staff
    - JOUR 414 - Newspaper Staff
    - JOUR 415 - Newspaper Editorship
  - One from list (b):
    - JOUR 321 - Periodical Staff
    - JOUR 421 - Periodical Staff
    - JOUR 422 - Periodical Editorship
  - And one additional from list (a) or (b), or:
    - ENVS 413 - The Planet Staff
- 12 upper-division credits in another academic area, under departmental advisement

## Journalism, BA

Department of Journalism, College of Humanities and Social Sciences

### 79 Credits

#### Introduction/What is the Study of Journalism?

Journalism is the work of supplying content, primarily news, for the ever-expanding world of mass media. Journalists are responsible for gathering information, analyzing and editing it for a mass audience, and

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dispensing it using some form of media platform. Increasingly the methods of distribution have become more complex, but the basic mission of a journalist remains the same: to serve the public by finding, defining, writing and editing information.

Today's journalist may be found on traditional publications such as newspapers and magazines, broadcast outlets and specialized publications. He or she may utilize online delivery or other forms of electronic communication. The trained journalist may use her or his skills in the expanding field of public relations, working to serve as a bridge between those with a message to communicate and the journalist who seeks information.

## Why Consider a Journalism Major?

Few fields of study prepare a person for as wide a range of interesting and challenging careers. Journalists first and foremost learn to write, to accumulate and analyze information. This set of skills is in demand in a host of fields beyond traditional mass media.

The study of Journalism exposes a student to current affairs and problems, from issues of campus governance to international news and concerns. Journalism students are expected to question, to challenge sources of information and seek a variety of data and opinions on any serious issue.

Journalism students are given the daily opportunity to practice what they learn, in hands-on student publication laboratories, culminating in a professional internship. The Journalism faculty at Western are prepared both professionally and academically to help students enter this exciting career field.

### Contact Information

#### Department Chair

Peggy Watt  
Communications Facility 253  
360-650-2338  
Peggy.Watt@wwu.edu

#### Academic Department Manager

Karen Smith  
Communications Facility 255  
360-650-3252  
Karen.Smith@wwu.edu

### Sample Careers

Reporter | Editor | Customer Service Representative | Public Relations Specialist | Community Relations Director | TV News Anchor | Speech Writer | Advertising Copywriter | Copywriter | Market Research Analyst | Lobbyist | Photojournalist | Designer | Multimedia Producer | All careers involving communication

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

**Admissions:** For admission to the major, a student must have completed the following requirements:

- Complete at least 30 college credits with a cumulative 2.50 grade point average
- Pass JOUR 207 with a B- or better
- Complete one Journalism staff course with a B- or better
- Submit a letter of application

Students meeting qualifications but not admitted because of space limitations will be listed as pre-majors and admitted as space allows.

**Application deadlines:** Deadlines for pre-major/major declaration are posted in the Journalism Department each quarter.

See additional details in the Journalism Department's Declaration of Major.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. Cumulative GPA of 2.50 or higher in major is required.

## Requirements

- JOUR 190 - Introduction to Mass Media
- JOUR 207 - Newswriting
- JOUR 307 - Reporting
- JOUR 309 - Editing
- JOUR 340 - History of U.S. Journalism
- JOUR 350 - Mass Media Law
- JOUR 351 - Mass Media Ethics
- JOUR 404 - Feature Writing
- JOUR 430 - Field Internship
- JOUR 450 - Advanced Reporting
- JOUR 480 - Senior Seminar
- Five quarters on publication staff:
  - Three courses from list (a):
  - JOUR 214 - Newspaper Staff
  - JOUR 314 - Newspaper Staff
  - JOUR 414 - Newspaper Staff
  - JOUR 415 - Newspaper Editorship
  - One course from list (b):
  - JOUR 321 - Periodical Staff
  - JOUR 421 - Periodical Staff
  - JOUR 422 - Periodical Editorship
  - And one additional from list (a) or (b), or:
  - ENVS 413 - The Planet Staff
- 12 upper-division credits in another academic area under departmental advisement
- A maximum of 73 journalism course credits may be applied toward the 180-credit minimum for graduation

## Minor

### Journalism Minor

Journalism, College of Humanities and Social Sciences

### 33 credits

### Introduction/What is the Study of Journalism?

### Why Consider a Journalism Minor?

#### Contact Information

#### Department Chair

Peggy Watt

Communications Facility 253

360-650-2338

Peggy.Watt@wwu.edu

#### Sample Careers



## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

#### **Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- JOUR 207 - Newswriting
- JOUR 307 - Reporting
- JOUR 309 - Editing
- JOUR 340 - History of U.S. Journalism
- JOUR 350 - Mass Media Law
- JOUR 351 - Mass Media Ethics
- Two quarters on student publication staff:
  - One course from list (a):
  - JOUR 214 - Newspaper Staff
  - JOUR 314 - Newspaper Staff
  - JOUR 414 - Newspaper Staff
  - One course from list (b):
  - JOUR 321 - Periodical Staff
  - JOUR 421 - Periodical Staff

### **Journalism Public Relations Minor**

Department of Journalism, College of Humanities and Social Sciences

#### **31-33 credits**

#### **Introduction/What is the Study of Journalism?**

#### **Why Consider a Journalism Public Relations Minor?**

## Contact Information

### **Department Chair**

Peggy Watt

Communications Facility 253

360-650-2338

[Peggy.Watt@wvu.edu](mailto:Peggy.Watt@wvu.edu)

## Sample Careers

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):****Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and not supporting courses for majors and minors.

## Requirements

- JOUR 207 - Newswriting
- JOUR 309 - Editing
- JOUR 330 - Principles of Public Relations
- JOUR 351 - Mass Media Ethics
- JOUR 380 - Advanced Public Relations Writing and Techniques
  - One course from:
    - JOUR 214 - Newspaper Staff
    - JOUR 314 - Newspaper Staff
  - One course from:
    - JOUR 321 - Periodical Staff
    - JOUR 421 - Periodical Staff
  - One course from:
    - ENVS 413 - The Planet Staff
    - JOUR 307 - Reporting
    - JOUR 314 - Newspaper Staff
    - JOUR 321 - Periodical Staff
    - JOUR 350 - Mass Media Law
    - JOUR 397 (with approval)
    - JOUR 414 - Newspaper Staff
    - JOUR 421 - Periodical Staff
    - JOUR 422 - Periodical Editorship

**Journalism Courses****JOUR 106 - Writing Structure**

Analysis of and skill development in sentence structure, syntax, English grammar, mechanics, usage and punctuation as applied to journalistic writing.

Credits: 2

**JOUR 190 - Introduction to Mass Media**

Introduction to basic issues and problems facing journalists and the public as recipients of mass media messages in national and international society; nature, theory and effects of communication; media systems, structure and support; world news flow; media controls; First Amendment rights; ethical considerations.

Credits: 5

GUR Attributes: SSC

**JOUR 207 - Newswriting**

Writing for news media; clarity in use of language, style and punctuation; sentence and paragraph structure and organization of stories; credibility of information and news judgment; basic methods of researching and writing. Weekly news discussions based on a major national newspaper as one of the texts.

**Prerequisites & Notes:** basic word processing skills required

Credits: 4

GUR Attributes: BCOM

# JOURNALISM

## **JOUR 214 - Newspaper Staff**

Participation on the staff of the university newspaper. Write articles and take photographs for the university's newspaper and online edition. Gather and edit audio and video, create multimedia packages for the newspaper's Web site. Also includes lecture.

**Prerequisites & Notes:** Sophomore status; JOUR 207.  
Credits: 3

## **JOUR 305 - Photojournalism**

Introduction to news photography and its application in print and online; composing effective new pictures; essentials of processing for print publication and multi-media projects; picture editing and layout; professional ethics and the law.

**Prerequisites & Notes:** JOUR 207; basic knowledge of photography and instructor permission  
Credits: 4

## **JOUR 307 - Reporting**

Interviewing, news coverage of community news sources with emphasis on public affairs reporting. Introduction to computerized database reporting and investigative techniques. Writing for news media.

**Prerequisites & Notes:** JOUR 207  
Credits: 5

## **JOUR 309 - Editing**

News copy desk operations; editing; headline writing; dummies; page make-up and news graphics; and computerized editing.

**Prerequisites & Notes:** JOUR 207; JOUR 307 or JOUR 380.  
Credits: 5

## **JOUR 314 - Newspaper Staff**

Participation on the staff of the university newspaper. Write articles and take photographs for the university's newspaper. Gather and edit audio and video, create multimedia packages for the newspaper's Web site. Also includes lecture.

**Prerequisites & Notes:** Junior status, JOUR 207;

JOUR 307 or JOUR 380.  
Credits: 3

## **JOUR 321 - Periodical Staff**

Staff writers prepare and produce the twice-quarterly university periodical and its online edition under the direction of the editor-in-chief and editorial management staff; learn and practice querying story ideas, researching, reporting, writing and then assisting with production of the written and visual elements of the magazine, including online elements for the website. Writers will manage their own time outside of class to report, write and revise manuscripts, investing time appropriate to their task and their goals and to meet deadline, and work with the editorial management team on production issues. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** JOUR 207; one newspaper staff course  
Credits: 3

## **JOUR 330 - Principles of Public Relations**

Methods, tools and media used in planning and developing strategic public relations programs for all organizations. Practicing research methods, writing news releases, understanding effective communications strategies and integrated marketing communications, analyzing case studies, exploring relations with the press and developing creative public relations campaigns.

**Prerequisites & Notes:** JOUR 207 or ENG 101 or permission of instructor.  
Credits: 4

## **JOUR 340 - History of U.S. Journalism**

An examination of how U.S. journalism has influenced U.S. history from the works that inspired the revolution to the coverage of 9/11. A poster presentation offers students the opportunity to research the role of the news media in shaping a specific event or issue in U.S. history.

**Prerequisites & Notes:** junior standing  
Credits: 4  
GUR Attributes: HUM

## **JOUR 346 - Introduction to Visual Journalism**

Critical and analytical exploration of the visual aspects of storytelling in print and online media; research on the cultural history and news media application of photography, infographics, typography, audio and video clips. Consideration of special properties, demands, and aspects of visuals as they are used to enhance and augment written news narratives. Application of these principles through projects that produce still and video photography, audio, informational graphics and typography to accompany written narrative.

**Prerequisites & Notes:** JOUR 207, JOUR 305, JOUR 309  
Credits: 5

**JOUR 350 - Mass Media Law**

Rights and legal restrictions on freedom of the press; constitutional guarantees as interpreted through the courts; libel, privacy, access to information, censorship, contempt, agency regulations. Issues applying to various forms of mass media, including print, broadcast and online publishing.

**Prerequisites & Notes:** Junior status.  
Credits: 5

**JOUR 351 - Mass Media Ethics**

Introduction to ethical theories; examination of professional codes and standards; changing roles of the media that affect moral reasoning for the journalist; responsibilities of the media in a world of instant communication and reaction; historical perspectives through case studies; use of reporting editing and advocacy methods and formation of news in print, broadcast and online media. Research paper examines ethics topic.

**Prerequisites & Notes:** JOUR 207  
Credits: 4

**JOUR 360 - Study of Literary Journalism**

Reading and critiquing texts that use literary techniques to enhance journalism. Studying the history of literary journalism and its impact on the field.

**Prerequisites & Notes:** Junior status  
Credits: 3

**JOUR 370 - Digital Media in Journalism**

Students will learn the basic steps to plan, produce and edit journalism that combines written components, audio, video and graphics to create compelling and engaging multimedia reports. Students will watch, analyze and provide written critiques of published multimedia projects. Students will examine the methods and techniques used by successful multimedia journalists. Students will produce, edit and review their own multimedia projects that combine written, audio and visual elements.

**Prerequisites & Notes:** JOUR 307, JOUR 309 and JOUR 346.  
Credits: 5

**JOUR 375 - Diversity, Mass Media and Social Change**

Uses an intersectional framework of race/ethnicity, gender, class and other demographic groups to examine how mass media cover social change and affect their audiences.

**Prerequisites & Notes:** Junior status, JOUR 190 or equivalent and permission of instructor.  
Credits: 4  
GUR Attributes: BCGM

**JOUR 380 - Advanced Public Relations Writing and Techniques**

Intensive focus on the processes involved in writing for an organization's diverse publics, including news releases, op-eds, broadcast material, speeches, organizational memos and proposals, employer publications, backgrounders, features and web sites. Students gain hands-on experience by applying these skills and processes through service-learning by writing for community organizations.

**Prerequisites & Notes:** JOUR 207 and JOUR 330.  
Credits: 5

**JOUR 390 - The News Process**

Critical examination of current news issues and decision-making processes through visiting news media professionals, readings and discussion. Repeatable to a maximum of 8 credits with various topics.

# JOURNALISM

**Prerequisites & Notes:** Junior status  
Credits: 4

## **JOUR 404 - Feature Writing**

In-depth article, column, and persuasive writing; development of ideas, gathering of materials and writing; special attention to individual interests; exploration of freelance writing markets.

**Prerequisites & Notes:** Major status and JOUR 307 or JOUR 380.  
Credits: 4

## **JOUR 407 - Public Relations Case Studies**

A study of the functions, processes and problems in the practice of public relations, paying particular attention to media relations, public relations theory and critical thinking. Students examine various genres of public relations, as well as exploring how theory, research, strategic objectives and evaluation contribute to successful campaigns. Students learn about creating successful public relations campaigns through critically analyzing case studies of both local companies and national programs and then applying what they learned to create a new proposal or campaign.

**Prerequisites & Notes:** JOUR 207 and JOUR 330; JOUR 380 or concurrent. Major status.  
Credits: 4

## **JOUR 414 - Newspaper Staff**

Participation on the staff of the university newspaper. Writing articles and taking photographs for the university's newspaper and online edition. Gathering and editing audio and video, creating multimedia packages for the newspaper's Web site. Also includes lecture. Repeatable to a maximum of 12 credits.

**Prerequisites & Notes:** JOUR 207; JOUR 307 or JOUR 380; JOUR 314.  
Credits: 3

## **JOUR 415 - Newspaper Editorship**

Publication editing and development; assigning and editing news stories, photographs and multimedia projects; creating content for the publication's Web site; creating and implementing budget and advising on budget decisions; acting as mentor to assigned staff members; holding office hours and

meeting outside scheduled class time; preparing reports and presentations for class and instructor; assisting with and taking part in workshops; office management and security; learning personnel communication skills; using advanced publication software and technology; making self-evaluation and production reports for adviser. Repeatable to a maximum of 16 credits. This course may not be taken concurrently with a staff course.

**Prerequisites & Notes:** JOUR 207; JOUR 307 or JOUR 380; one newspaper staff course, and permission of instructor.  
Credits: 4

## **JOUR 421 - Periodical Staff**

Staff writers prepare and produce the twice-quarterly university periodical and its online edition under the direction of the editor-in-chief and editorial management staff; learn and practice querying story ideas, researching, reporting, writing and then assisting with production of the written and visual elements of the magazine, including online elements for the website. Writers will manage their own time outside of class to report, write and revise manuscripts, investing time appropriate to their task and their goals and to meet deadline, and work with the editorial management team on production issues. Repeatable to a maximum of 9 credits.

**Prerequisites & Notes:** Senior status; JOUR 207; JOUR 307 or JOUR 380; and one newspaper staff course.  
Credits: 3

## **JOUR 422 - Periodical Editorship**

Print publication and online publication editing and development; hiring and supervising an editorial management team to produce the twice-quarterly university periodical and its online edition; acting as mentor to assigned staff members; holding office hours and meetings outside scheduled class time; preparing reports and presentations for class and instructor; assisting with and taking part in workshops; managing the publication office; reviewing and staying within budget; learning personnel communication skills; using advanced publication software and technology; making self-evaluation and production reports for adviser. This course may not be taken concurrently with a

periodical staff course. Repeatable to a maximum of 12 credits.

**Prerequisites & Notes:** JOUR 207; JOUR 307 or JOUR 380; one periodical staff course, and permission of instructor.

Credits: 4

**JOUR 430 - Field Internship**

Supervised field work on newspapers, magazines, radio and TV stations, public relations and advertising agencies, or other appropriate professional situations. S/U grading.

**Prerequisites & Notes:** For the news/editorial sequence: Jour 207, JOUR 307, JOUR 309, JOUR 350, JOUR 351, two newspaper staff courses and major status. For the public relations sequence: JOUR 207, JOUR 309, JOUR 330, JOUR 350, JOUR 351, JOUR 380, one newspaper staff course and major status. For the visual journalism sequence: JOUR 207, JOUR 305, JOUR 307, JOUR 309, JOUR 346, JOUR 350, JOUR 351, one newspaper staff course and major status. For the environmental journalism sequence: JOUR 207, JOUR 307, JOUR 309, JOUR 350, one newspaper staff course and major status.

Credits: 6

Grade Mode: S/U

**JOUR 440 - Public Relations Research and Campaigns**

Study and practice in research methods, theory, implementation and evaluation of effective programs of communication. Students work in teams to establish a firm theoretical and research-based approach to planning an effective public relations campaign for a community organization.

**Prerequisites & Notes:** JOUR 330, JOUR 380 and major status.

Credits: 5

**JOUR 446 - Advanced Visual Journalism**

In depth exploration of concepts and practices explored in Journalism 346. Students work in teams to apply theories, conduct research, analyze data and apply design and software skills to produce visual and verbal elements for advanced projects.

**Prerequisites & Notes:** Major status and Jour 346 and JOUR 370.

Credits: 5

**JOUR 450 - Advanced Reporting**

Survey and application of advanced reporting techniques, including computer-assisted reporting, and the use of the Internet, to produce news stories of depth, complexity and appeal.

**Prerequisites & Notes:** JOUR 307, JOUR 350 and JOUR 351; major status.

Credits: 5

**JOUR 460 - Special Reporting Project**

Students write about and photograph people who have ethnic, national, environmental or cultural backgrounds different from the dominant society; sensitivity to other cultural traditions; advanced reporting and writing skills.

**Prerequisites & Notes:** Jour 307 or JOUR 380; JOUR 350 or JOUR 351; two staff courses and major status.

Credits: 4

**JOUR 480 - Senior Seminar**

Examines research methods in and theories of mass communication in the context of the practice of journalism and public relations in a democratic society. A research paper provides students with practice applying specific methods and theories to explore contemporary issues in journalism and public relations.

**Prerequisites & Notes:** JOUR 350 and JOUR 351; and major status.

Credits: 5

# Liberal Studies

## Introduction

Liberal studies is an interdisciplinary humanities department. We give our students a broad perspective on the world by leading them in exploration of major textual traditions, drawing on all the scholarly disciplines that make up the humanities - philosophy, religion, history, literature, and the arts - to see how people in different cultures have thought about truth and the meaning of human experience, standards of moral judgment for human actions, and the nature of beauty and the cultivation of taste in the arts.

The department teaches students to ask how works of the humanities have been shaped by their historical and cultural contexts, and how they in turn have influenced readers and audiences. The department supports the study of humanities in the cultures of Europe, the Americas, China, Japan, South Asia, sub-Saharan Africa, and in predominately Islamic areas. Its courses give attention to historical development and cross-cultural interaction, both in the past and in the modern period.

The department offers the BA in Humanities with two areas of concentration: the history of culture, and the academic study of religion. Students in the BA degree programs practice what they have learned about analyzing texts, works of art and historical contexts in their own supervised research. In the degree programs and in General University Requirements courses students develop habits of mind characterized by awareness of methodological issues, analysis from more than one perspective, aesthetic appreciation, and clear communication, habits which have proved to be broadly useful to them in a variety of professional careers and in civic life.

## Information

For additional information, contact the Department of Liberal Studies, Western Washington University, 516 High St., Bellingham, WA 98225-9064. The department office is located in Bond Hall 152, telephone 360-650-3031, fax 360-650-6713, e-mail: Liberal.Studies@wwu.edu. Web access: [www.wwu.edu/liberalstudies](http://www.wwu.edu/liberalstudies).

- The department offers interdisciplinary courses which can fulfill a major part of the WWU General University Requirements in humanities and in comparative, gender and multicultural studies; see the *University Graduation Requirements* section of this catalog for the complete General University Requirements and options for satisfying them
- The department offers a BA in humanities with a choice of two concentrations, in history of culture and in religion and culture
- The department offers interdisciplinary minor programs in humanities and in the study of religion
- The department administers and offers courses in the minor in Arabic and Islamic studies
- The department offers courses in the East Asian Studies program
- The department administers the Student/Faculty-Designed Major in the College of Humanities and Social Sciences. This program allows students, in consultation with appropriate faculty, to design an interdisciplinary course of study in areas not available through existing departmental majors

Additional information about all of the foregoing is available from the Liberal Studies Office, Bond Hall 152.

## Faculty

**SCOTT PEARCE** (1992) Chair and Professor. BA, Rutgers University; PhD, Princeton University.

**HOLLY FOLK** (2007) Associate Professor. BA, Wesleyan University; MA, Columbia University; PhD, Indiana University.

**ANDREA GOGRÖF** (1996) Professor. BA, MA, University of Paris, Nanterre; PhD, University of Washington.

**KIMBERLY LYNN** (2006) Associate Professor. BA, College of William and Mary; MA, PhD, Johns Hopkins University.

**JONATHAN MIRAN** (2003) Associate Professor. BA, MA, Institut National des Langues et Civilisations Orientales, Paris; PhD, Michigan State University.

**SEAN E. MURPHY** (2002) Associate Professor. AB, MA, PhD, Cornell University.

**ROBERT F. STOOPS, JR.** (1983) Professor. AB, University of North Carolina at Chapel Hill; MDiv, Harvard Divinity School; MA, PhD, Harvard University.

## Other Departmental Information

### *Mid-Program Checkpoint*

Students seeking to complete a BA in humanities degree within four years should take LBRL 121 and LBRL 122 before spring quarter of their junior year. LBRL 302 should be taken in spring quarter of the junior year. If not taken before this quarter, LBRL 123 must be taken in the same quarter as LBRL 302. By the end of their junior year students also should complete 12-15 additional credits from the courses required for the BA in Humanities degree. Transfer students should contact the department for advisement as early as possible.

## Bachelor of Arts

### Humanities - History of Culture Concentration, BA

Department of Liberal Studies, College of Humanities and Social Sciences

#### 61-70 credits

#### Introduction/What is the Study of Humanities?

The humanities include the disciplines which study philosophy, religion, history, literature, and the arts. The B.A. in Humanities programs attracts students who want to major in more than one Humanities discipline, using interdisciplinary methods of investigation. The department supports study of religions and of cultural history in Europe and the Americas, China, Japan, South Asia, sub-Saharan Africa, and in predominantly Islamic areas. Its courses give attention to historical development and cross-cultural interaction, both in the past and in the modern period.

The small size of classes and seminars in the Humanities B.A. programs encourages close relationships between students and faculty. Students conduct independent research on topics of their own choosing. Working closely with faculty, students learn to formulate problems clearly, to consider and evaluate different methods and concepts, to do efficient and thorough research, and to write clearly, concisely and effectively. Graduates have gone on to a variety of professional graduate schools and careers, including teaching, law, library science, archive administration, and research and administrative positions with business and non-profit organizations. Students who have done excellent work in the department have succeeded in graduate academic programs in literature, history and the study of religion.

#### Why Consider a History of Culture Concentration in the Humanities Major?

The History of Culture Concentration focuses on how cultures change. Students acquire a substantial knowledge of religious, philosophical, literary and aesthetic movements in the history of Western culture. Students also study works of the humanities in at least one other culture, and that culture's history. Using methods from different humanities disciplines, students learn to analyze individual works of the humanities and to relate them to social and cultural developments. Learning how to understand cultural differences and cultural change helps students exercise leadership in a more closely knit, global world.

Students acquire skills which are broadly applicable to professional careers. These skills include problem solving, critical thinking, research skills, integrative skills, and written and oral communications skills. The History of Culture Concentration has proved to be excellent preparation for professional careers in teaching, law, library science, archive administration, and for research and administrative positions with businesses and non-profit organizations.

Students who plan a career in secondary education should contact the department for advising as soon as possible.



# LIBERAL STUDIES

## Contact Information

### Department Chair

Scott Pearce  
Bond Hall 152A  
360-650-3897  
Scott.Pearce@wwu.edu

### Secretary Supervisor

Kim Kolb Ayre  
Bond Hall 152  
360-650-3031  
Kim.Ayre@wwu.edu

## Sample Careers

Attorney | Teacher | Professor | Librarian | Writer | Business Administrator | Historian | Non-Profit Organization Administrator | Congressional Aid | Research Assistant | Editor | Lobbyist

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Students interested in the Humanities degree should contact the Liberal Studies Department as soon as possible.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

An average grade of B in Liberal Studies courses is required for admission to LBRL 302. (NOTE: LBRL 302 is ordinarily offered spring quarter only.) LBRL 302 is prerequisite to LBRL 421, 422, 423, 424. It is recommended that students undertake study of a foreign language concurrently with the major.

## Requirements

### Core 18-20 credits

#### One course from:

- LBRL 121 - The Western Tradition I: The Ancient World
- HNRS 103 - Major Cultural Traditions I

#### One course from:

- LBRL 122 - The Western Tradition II: Medieval and Early Modern Europe
- HNRS 104 - Major Cultural Traditions II
- LBRL 123 - The Western Tradition III: The Modern World
- LBRL 302 - Methods of Interdisciplinary Study

### Concentration 28-35 credits

#### One course (4-5 credits) from:

- LBRL 231 - Introduction to the Study of Religion
- LBRL 243 - Art and Ideas
- LBRL 301 - Historical Methods in the Humanities
- LBRL 303 - Methods in the Study of Religion

#### Two courses (8-10 credits) from:

- LBRL 271 - Humanities of India
- LBRL 273 - Art and Society in China and Japan
- LBRL 275 - Humanities of Japan
- LBRL 276 - Humanities of Africa
- LBRL 277 - Humanities of China
- LBRL 278 - Humanities of Islamic Civilization
- LBRL 281 - Representations of Otherness
- LBRL 360 - China and the Emerging World Economy: From Antiquity to the Early Modern

- LBRL 362 - Islam and Muslims in the Indian Ocean World
  - LBRL 372 - Postcolonial Novels: Art, Rhetoric and Social Context
  - LBRL 380 - Religion and Society in China
  - LBRL 382 - Religion and Society in Japan
  - Four courses (16-20 credits) under advisement from:
    - LBRL 321 - Between Renaissance and Inquisition: Censorship and Religious Conflict in Spain's Golden Age
    - LBRL 323 - The Romantic Paradox: Love, Life and Death
    - LBRL 325 - Surveillance, Voyeurism and the Culture of Suspicion
    - LBRL 332 - World Religions
    - LBRL 333 - Religion in America
    - LBRL 334 - Hebrew Bible and the Religion of Ancient Israel
    - LBRL 336 - New Testament and Early Christianity
    - LBRL 338 - Mysticism
    - LBRL 340 - Sufism: The Islamic Mystical Tradition
    - LBRL 360 - China and the Emerging World Economy: From Antiquity to the Early Modern
    - LBRL 362 - Islam and Muslims in the Indian Ocean World
    - LBRL 372 - Postcolonial Novels: Art, Rhetoric and Social Context
    - LBRL 375 - Buddhism
    - LBRL 378 - Religion and Society in India
    - LBRL 478 - Renewal and Reform in the Islamic World Since the Eighteenth Century
- Or other appropriate upper-division courses in Humanities and Social Sciences, under advisement. LBRL 360, 362, and 372 may be counted in one group only.
- Non-Thesis Option** (15 credits)
- Three courses (15 credits) from:
    - LBRL 421 - Senior Seminar: Approaches to Cultural History
    - LBRL 422 - Senior Seminar: Literary Traditions in Western Culture
    - LBRL 423 - Senior Seminar: Self, Culture and Society
    - LBRL 424 - Senior Seminar: Social Change in Cross-Cultural Contexts

## Humanities - Religion and Culture Concentration, BA

Department of Liberal Studies, College of Humanities and Social Sciences

### 65-70 credits

#### Introduction/What is the Study of Humanities?

The humanities include the disciplines which study philosophy, religion, history, literature, and the arts. The B.A. in Humanities programs attracts students who want to major in more than one Humanities discipline, using interdisciplinary methods of investigation. The department supports study of religions and of cultural history in Europe and the Americas, China, Japan, South Asia, sub-Saharan Africa, and in predominantly Islamic areas. Its courses give attention to historical development and cross-cultural interaction, both in the past and in the modern period.

The small size of classes and seminars in the Humanities B.A. programs encourages close relationships between students and faculty. Students conduct independent research on topics of their own choosing. Working closely with faculty, students learn to formulate problems clearly, to consider and evaluate different methods and concepts, to do efficient and thorough research, and to write clearly, concisely and effectively. Graduates have gone on to a variety of professional graduate schools and careers, including teaching, law, library science, archive administration, and research and administrative positions with business and non-profit

## LIBERAL STUDIES

organizations. Students who have done excellent work in the department have succeeded in graduate academic programs in literature, history and the study of religion.

### **Why Consider a Religion and Culture Concentration in the Humanities Major?**

The Religion and Culture Concentration provides scholarly, non-sectarian study of religions. Students study religious beliefs, practices, arts, identities, and institutions and examine how religions have influenced and been influenced by historical changes in other aspects of society and culture. The concentration includes study in the origin, history and methods of the academic study of religion as it has developed in modern Europe and North America, along with a broad survey of Western culture as a context for understanding its religious traditions. Students also become familiar with religious traditions in at least one non-Western culture. Learning how to understand people of different religions helps students exercise leadership in settings of religious diversity and conflict.

Students acquire skills which are broadly applicable to professional careers. These skills include problem solving, critical thinking, research skills, integrative skills, and written and oral communications skills. The Religion and Culture concentration is particularly helpful for students who plan careers in education or the ministry, or graduate study in religion.

#### Contact Information

##### **Department Chair**

Scott Pearce  
Bond Hall 152A  
360-650-3897  
Scott.Pearce@wwu.edu

##### **Secretary Supervisor**

Kim Kolb Ayre  
Bond Hall 152  
360-650-3031  
Kim.Ayre@wwu.edu

#### Sample Careers

Attorney | Teacher | Professor | Librarian | Writer | Business Administrator | Historian | Non-Profit Organization Administrator | Congressional Aid | Research Assistant | Editor | Lobbyist

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

Students interested in the Humanities degree should contact the Liberal Studies Department as soon as possible.

### **Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

An average grade of B in Liberal Studies courses is required for admission to LBRL 302. (NOTE: LBRL 302 is ordinarily offered spring quarter only.) LBRL 302 is prerequisite to LBRL 421, 422, 423, 424. It is recommended that students undertake study of a foreign language concurrently with the major.

#### Requirements

##### **Core** 18-20 credits

##### One course from:

- LBRL 121 - The Western Tradition I: The Ancient World
- HNRS 103 - Major Cultural Traditions I

##### One course from:

- LBRL 122 - The Western Tradition II: Medieval and Early Modern Europe
- HNRS 104 - Major Cultural Traditions II

- LBRL 123 - The Western Tradition III: The Modern World
  - LBRL 302 - Methods of Interdisciplinary Study
  - **Concentration 32-35 credits**
  - LBRL 231 - Introduction to the Study of Religion
    - Two courses (8-10 credits) from:
      - LBRL 271 - Humanities of India
      - LBRL 278 - Humanities of Islamic Civilization
      - LBRL 283 - Religion and Globalization
      - LBRL 340 - Sufism: The Islamic Mystical Tradition
      - LBRL 375 - Buddhism
      - LBRL 378 - Religion and Society in India
    - LBRL 303 - Methods in the Study of Religion
      - Three courses (12-16 credits) from:
        - LBRL 301 - Historical Methods in the Humanities
        - LBRL 321 - Between Renaissance and Inquisition: Censorship and Religious Conflict in Spain's Golden Age
        - LBRL 332 - World Religions
        - LBRL 333 - Religion in America
        - LBRL 334 - Hebrew Bible and the Religion of Ancient Israel
        - LBRL 336 - New Testament and Early Christianity
        - LBRL 338 - Mysticism
        - LBRL 375 - Buddhism
        - LBRL 378 - Religion and Society in India
        - LBRL 380 - Religion and Society in China
        - LBRL 382 - Religion and Society in Japan
      - LBRL 478 - Renewal and Reform in the Islamic World Since the Eighteenth Century
- Other appropriate upper-division courses in the Humanities & Social Sciences, under advisement.  
LBRL 375, 378, 380 and 382 may be counted in one group only.
- **Non-Thesis Option (15 credits)**
  - Three courses (15 credits) from:
    - LBRL 421 - Senior Seminar: Approaches to Cultural History
    - LBRL 422 - Senior Seminar: Literary Traditions in Western Culture
    - LBRL 423 - Senior Seminar: Self, Culture and Society
    - LBRL 424 - Senior Seminar: Social Change in Cross-Cultural Contexts

## Humanities — History of Culture Concentration, Thesis, BA

Department of Liberal Studies, College of Humanities and Social Sciences

### 61-70 credits

#### Introduction/What is the Study of Humanities - History of Culture Concentration?

The two concentrations for a BA in Humanities provide interdisciplinary study of the humanities (philosophy, religion, history, literature and the arts) in Western and other civilizations. The major emphasizes critical reading, analysis and writing and culminates in a senior paper written under advisement, or in further work in rigorous senior seminars. It provides skills and habits of mind which have proved broadly useful in a variety of professional careers, in both public and private settings, and it prepares students for knowledgeable participation in civic life. The major also proved to be excellent preparation for graduate study in law, library science, history, English, comparative literature, and religion.

# LIBERAL STUDIES

The History of Culture Concentration focuses on how cultures change. Students acquire a substantial knowledge of religious, philosophical, literary and aesthetic movements in Western civilization. Students also acquire some knowledge of works of the humanities in at least one other culture, and of that culture's history. Students learn to analyze individual works of the humanities and to relate them to social and cultural developments. Students become familiar with methodological issues in the humanities and in cultural history, and learn to use methods appropriate to different kinds of problems.

## Why Consider a History of Culture Concentration, Thesis, in History?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

An average grade of B in Liberal Studies courses is required for admission to LBRL 302. (NOTE: LBRL 302 is ordinarily offered spring quarter only.) LBRL 302 is prerequisite to LBRL 421, 422, 423, 424. LBRL 498 (2 credits) should be taken with a Liberal Studies faculty member in the quarter prior to enrolling in LBRL 499, to prepare for the latter. It is recommended that students undertake study of a foreign language concurrently with the major.

### Requirements

#### **Core** 18-20 credits

One course from:

- LBRL 121 - The Western Tradition I: The Ancient World
- HNRS 103 - Major Cultural Traditions I

One course from:

- LBRL 122 - The Western Tradition II: Medieval and Early Modern Europe
- HNRS 104 - Major Cultural Traditions II
- LBRL 123 - The Western Tradition III: The Modern World
- LBRL 302 - Methods of Interdisciplinary Study

#### **Concentration** 28-35 credits

One course (4-5 credits) from:

- LBRL 231 - Introduction to the Study of Religion
- LBRL 243 - Art and Ideas
- LBRL 301 - Historical Methods in the Humanities
- LBRL 303 - Methods in the Study of Religion

Two courses (8-10 credits) from:

- LBRL 271 - Humanities of India
- LBRL 273 - Art and Society in China and Japan
- LBRL 275 - Humanities of Japan
- LBRL 276 - Humanities of Africa
- LBRL 277 - Humanities of China

- LBRL 278 - Humanities of Islamic Civilization
  - LBRL 281 - Representations of Otherness
  - LBRL 360 - China and the Emerging World Economy: From Antiquity to the Early Modern
  - LBRL 362 - Islam and Muslims in the Indian Ocean World
  - LBRL 372 - Postcolonial Novels: Art, Rhetoric and Social Context
  - LBRL 380 - Religion and Society in China
  - LBRL 382 - Religion and Society in Japan
  - Four courses (16-20 credits) under advisement from:
    - LBRL 321 - Between Renaissance and Inquisition: Censorship and Religious Conflict in Spain's Golden Age
    - LBRL 323 - The Romantic Paradox: Love, Life and Death
    - LBRL 325 - Surveillance, Voyeurism and the Culture of Suspicion
    - LBRL 332 - World Religions
    - LBRL 333 - Religion in America
    - LBRL 334 - Hebrew Bible and the Religion of Ancient Israel
    - LBRL 336 - New Testament and Early Christianity
    - LBRL 338 - Mysticism
    - LBRL 340 - Sufism: The Islamic Mystical Tradition
    - LBRL 360 - China and the Emerging World Economy: From Antiquity to the Early Modern
    - LBRL 362 - Islam and Muslims in the Indian Ocean World
    - LBRL 372 - Postcolonial Novels: Art, Rhetoric and Social Context
    - LBRL 375 - Buddhism
    - LBRL 378 - Religion and Society in India
    - LBRL 478 - Renewal and Reform in the Islamic World Since the Eighteenth Century
- Or other appropriate upper-division courses in Humanities and Social Sciences, under advisement.  
LBRL 360, 362, and 372 may be counted in one group only.
- Thesis Option** (15 credits)
- Two courses (10 credits) from:
    - LBRL 421 - Senior Seminar: Approaches to Cultural History
    - LBRL 422 - Senior Seminar: Literary Traditions in Western Culture
    - LBRL 423 - Senior Seminar: Self, Culture and Society
    - LBRL 424 - Senior Seminar: Social Change in Cross-Cultural Contexts
    - □ LBRL 498 - Readings for Research in Humanities
    - □ LBRL 499 - Research in Humanities

## **Humanities — Religion and Culture Concentration, Thesis, BA**

Department of Liberal Studies, College of Humanities and Social Sciences

### **65-70 credits**

#### **Introduction/What is the Study of Humanities - Religion and Culture Concentration, Thesis?**

The two concentrations for a BA in Humanities provide interdisciplinary study of the Humanities (philosophy, religion, history, literature and the arts) in Western and other civilizations. The major emphasizes critical reading, analysis and writing and culminates in a senior paper written under advisement, or in further work in rigorous senior seminars. It provides skills and habits of mind which have proved broadly useful in a variety of professional careers, in both public and private settings, and it prepares students for knowledgeable participation in civic life. The major also proved to be excellent preparation for graduate study in law, library

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science, history, English, comparative literature, and religion.

The Religion and Culture Concentration provides scholarly, critical, nonsectarian study of religions. Students study religious beliefs, practices, identities and organizations, and how they have influenced and been influenced by other aspects of society and culture. The concentration includes a broad survey of Western civilization as a basis for understanding its religious traditions. Students also become familiar with religious traditions in non-Western civilizations, and with their modern interactions and changes. Students study the origin, history, and methods of the academic study of religion as it has developed in Europe and North America. They are introduced to methodological issues in the study of religion, and learn to use methods appropriate to different kinds of problems.

For information or advisement, contact the Liberal Studies Office.

## Why Consider a Religion and Culture Concentration, Thesis, in Humanities?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

An average grade of B in Liberal Studies courses is required for admission to LBRL 302. (NOTE: LBRL 302 is ordinarily offered spring quarter only.) LBRL 302 is prerequisite to LBRL 421, 422, 423, 424. LBRL 498 (2 credits) should be taken with a Liberal Studies faculty member in the quarter prior to enrolling in LBRL 499, to prepare for the latter. It is recommended that students undertake study of a foreign language concurrently with the major.

### Requirements

#### **Core** 18-20 credits

One course from:

- LBRL 121 - The Western Tradition I: The Ancient World
- HNRS 103 - Major Cultural Traditions I

One course from:

- LBRL 122 - The Western Tradition II: Medieval and Early Modern Europe
- HNRS 104 - Major Cultural Traditions II
- LBRL 123 - The Western Tradition III: The Modern World
- LBRL 302 - Methods of Interdisciplinary Study

#### **Concentration** 32-35 credits

- LBRL 231 - Introduction to the Study of Religion

Two courses (8-10 credits) from:

- LBRL 271 - Humanities of India
- LBRL 278 - Humanities of Islamic Civilization

- LBRL 283 - Religion and Globalization
  - LBRL 340 - Sufism: The Islamic Mystical Tradition
  - LBRL 375 - Buddhism
  - LBRL 378 - Religion and Society in India
  - LBRL 380 - Religion and Society in China
  - LBRL 382 - Religion and Society in Japan
  - LBRL 303 - Methods in the Study of Religion
    - Three courses (12-16 credits) from:
      - LBRL 301 - Historical Methods in the Humanities
      - LBRL 321 - Between Renaissance and Inquisition: Censorship and Religious Conflict in Spain's Golden Age
      - LBRL 332 - World Religions
      - LBRL 333 - Religion in America
      - LBRL 334 - Hebrew Bible and the Religion of Ancient Israel
      - LBRL 336 - New Testament and Early Christianity
      - LBRL 338 - Mysticism
      - LBRL 375 - Buddhism
      - LBRL 378 - Religion and Society in India
      - LBRL 380 - Religion and Society in China
      - LBRL 382 - Religion and Society in Japan
    - LBRL 478 - Renewal and Reform in the Islamic World Since the Eighteenth Century
- Other appropriate upper-division courses in the Humanities & Social Sciences, under advisement.  
LBRL 375, 378, 380 and 382 may be counted in one group only.
- Thesis Option** (15 credits)
- Two courses (10 credits) from:
    - LBRL 421 - Senior Seminar: Approaches to Cultural History
    - LBRL 422 - Senior Seminar: Literary Traditions in Western Culture
    - LBRL 423 - Senior Seminar: Self, Culture and Society
    - LBRL 424 - Senior Seminar: Social Change in Cross-Cultural Contexts
    - LBRL 498 - Readings for Research in Humanities
    - LBRL 499 - Research in Humanities

## Minor

### Arabic and Islamic Studies Minor

Department of Liberal Studies, College of Humanities and Social Sciences

#### 28-30 credits

#### Introduction/What is the Study of Arabic and Islamic Studies?

The Minor in Arabic and Islamic Studies provides intermediate instruction in Arabic, an introduction to the history of Islamic civilization, and upper division electives from several academic departments.

#### Why Consider an Arabic and Islamic Studies Minor?

Contact Information



## Sample Careers

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

#### **Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.5 or above is required in the Arabic courses.

#### Requirements

- ARAB 201 - Intermediate Arabic
- ARAB 202 - Intermediate Arabic
- ARAB 203 - Intermediate Arabic
- One course from:
  - LBRL 278 - Humanities of Islamic Civilization
  - HIST 287 - Introduction to Islamic Civilization
- Select 8-10 credits of electives from the list below, or other electives under advisement, including ANTH 490 when it is taught as Islam and Conflict in Europe:
  - EAST 314 - The Mongols
  - FAIR 371B - Topics in Middle East Studies
  - HIST 405 - The Traditional Middle East
  - HIST 406 - Middle East, 1800 to the Present
  - HIST 407 - History of the Israel/Palestinian Conflict
  - HIST 488 - Modern Egypt, Libya and the Nile Valley
  - LBRL 340 - Sufism: The Islamic Mystical Tradition
  - LBRL 362 - Islam and Muslims in the Indian Ocean World
  - LBRL 478 - Renewal and Reform in the Islamic World Since the Eighteenth Century
  - PLSC 271 - Introduction to International Relations

### **Humanities Minor**

Department of Liberal Studies, College of Humanities and Social Sciences

#### **28-35 credits**

#### **Introduction/What is the Study of Humanities?**

The Minor in Humanities provides interdisciplinary study of the humanities (philosophy, religion, history, literature and the arts) in Western and other civilizations.

#### **Why Consider a Humanities Minor?**

## Contact Information

## Sample Careers

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- Two courses (8-10 credits):
  - One of:
    - LBRL 121 - The Western Tradition I: The Ancient World
    - HNRS 103 - Major Cultural Traditions I
  - One of:
    - LBRL 122 - The Western Tradition II: Medieval and Early Modern Europe
    - HNRS 104 - Major Cultural Traditions II
  - One of:
    - LBRL 123 - The Western Tradition III: The Modern World
- One course (4-5 credits) from:
  - LBRL 231 - Introduction to the Study of Religion
  - LBRL 243 - Art and Ideas
  - LBRL 281 - Representations of Otherness
  - LBRL 301 - Historical Methods in the Humanities
  - LBRL 303 - Methods in the Study of Religion
- One course from (4-5 credits):
  - LBRL 232 - Myth and Folklore
  - LBRL 271 - Humanities of India
  - LBRL 273 - Art and Society in China and Japan
  - LBRL 275 - Humanities of Japan
  - LBRL 276 - Humanities of Africa
  - LBRL 277 - Humanities of China
  - LBRL 278 - Humanities of Islamic Civilization
  - LBRL 372 - Postcolonial Novels: Art, Rhetoric and Social Context
  - LBRL 375 - Buddhism
  - LBRL 378 - Religion and Society in India
  - LBRL 380 - Religion and Society in China
  - LBRL 382 - Religion and Society in Japan
- Three additional courses (12-15 credits) from:
  - LBRL 301 - Historical Methods in the Humanities
  - LBRL 302 - Methods of Interdisciplinary Study
  - LBRL 303 - Methods in Study of Religion
  - LBRL 323 - The Romantic Paradox: Love, Life and Death
  - LBRL 325 - Surveillance, Voyeurism and the Culture of Suspicion
  - LBRL 332 - World Religions
  - LBRL 334 - Hebrew Bible and the Religion of Ancient Israel
  - LBRL 336 - New Testament and Early Christianity
  - LBRL 338 - Mysticism

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- LBRL 340 - Sufism: The Islamic Mystical Tradition
  - LBRL 360 - China and the Emerging World Economy: From Antiquity to the Early Modern
  - LBRL 362 - Islam and Muslims in the Indian Ocean World
  - LBRL 375 - Buddhism
  - LBRL 378 - Religion and Society in India
  - LBRL 380 - Religion and Society in China
  - LBRL 382 - Religion and Society in Japan
  - LBRL 478 - Renewal and Reform in the Islamic World Since the Eighteenth Century
- And other appropriate courses under advisement  
LBRL 375, 378, 380, and 382 may be counted in one group only

### Study of Religion Minor

Department of Liberal Studies, College of Humanities and Social Sciences

#### 27-30 credits

#### Introduction/What is the Study of Study of Religion?

The Minor in the Study of Religion provides scholarly, critical, nonsectarian study of religions. Students study religious beliefs, practices, identities and organizations, and how they have influenced and been influenced by other aspects of society and culture.

For advisement regarding the minor, contact the Liberal Studies Office.

#### Why Consider a Study of Religion Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- LBRL 231 - Introduction to the Study of Religion
- Two courses (9-10 credits) from:
  - LBRL 232 - Myth and Folklore
  - LBRL 271 - Humanities of India
  - LBRL 278 - Humanities of Islamic Civilization
  - LBRL 283 - Religion and Globalization
- Three courses (13-15 credits) from:
  - LBRL 303 - Methods in the Study of Religion
  - LBRL 332 - World Religions
  - LBRL 333 - Religion in America

- LBRL 334 - Hebrew Bible and the Religion of Ancient Israel
- LBRL 336 - New Testament and Early Christianity
- LBRL 338 - Mysticism
- LBRL 340 - Sufism: The Islamic Mystical Tradition
- LBRL 375 - Buddhism
- LBRL 378 - Religion and Society in India
- LBRL 380 - Religion and Society in China
- LBRL 382 - Religion and Society in Japan
- LBRL 478 - Renewal and Reform in the Islamic World Since the Eighteenth Century

And other appropriate courses under advisement.

## Liberal Studies Courses

### **LBRL 110 - Confession and Self-Promotion: Autobiography from Augustine to the Blogosphere**

An examination of the historical origins of autobiographical writing in the European tradition, this class considers how individuals have imagined both themselves and their relationships to society. Through visual media (such as portraiture) and various written genres (from letters to trial records to essays), this class uses an interdisciplinary approach to introduce some important themes in European cultural history.

**Prerequisites & Notes:** Freshman status  
Credits: 5  
GUR Attributes: HUM

### **LBRL 121 - The Western Tradition I: The Ancient World**

This course studies the Near Eastern and Mediterranean origins of Western culture through an examination of Mesopotamian, Hebrew, Greek, and Roman sources. It considers ancient world views and conceptions of what it meant to be human. Sections explore such varied topics as debates about knowledge and ideas about justice, gender, mortality and immortality; they treat the organization of ancient societies and their production of visual arts and architecture. Readings often include selections from the Epic of Gilgamesh and the Hebrew Bible, Greek plays, the Iliad or Odyssey, Plato, and Virgil's Aeneid.

Credits: 5  
GUR Attributes: HUM

### **LBRL 122 - The Western Tradition II: Medieval and Early Modern Europe**

This course is an introduction to the cultural history of medieval and early modern Europe (from the 4th to the 18th centuries) through an analysis of a wide variety of sources. It examines works of visual art, philosophy, rhetoric, literature, history, and religion, and considers a range of themes, from pilgrimage and the interaction between the sacred and the profane to disputes about authority, religious conflict, and imperial expansion. Readings may include works by Augustine, Marie de France, Christine de Pizan, Erasmus, Camões, Shakespeare or Cervantes; all sections include Dante.

Credits: 5  
GUR Attributes: HUM

### **LBRL 123 - The Western Tradition III: The Modern World**

This course explores the construction of modernity. As an introduction to modern Western culture from the 18th century to the present, it examines such modern ideologies as feminism, Romanticism, and nationalism. This course considers a spectrum of views of the individual, of progress, and of the alienation and integration of the individual in society. Many sections include study of films and other material from the visual arts. Readings often include novels, and the writings of Freud, Marx, Nietzsche, Mill, Baudelaire, and Rousseau.

Credits: 5  
GUR Attributes: HUM

## LIBERAL STUDIES

### **LBRL 231 - Introduction to the Study of Religion**

Introduction to the academic study of religion. An exploration of beliefs, practices and institutions through case studies drawn from religions around the world. Introduction to scholarly perspectives and theories of religion.

Credits: 5  
GUR Attributes: ACGM

### **LBRL 232 - Myth and Folklore**

An introduction to the study of myth and folklore and its cultural impact.

Credits: 4  
GUR Attributes: HUM

### **LBRL 243 - Art and Ideas**

A study of Western humanities through the visual arts, sculpture, painting and architecture. Exploration of the values expressed through choices of style and subject matter in selected cultural periods.

Credits: 4  
GUR Attributes: HUM

### **LBRL 271 - Humanities of India**

The Indian experience and the development of its cultural unity; the challenge of Islam and the British colonial experience; the conditions of modernization and the emerging synthesis of values.

Credits: 5  
GUR Attributes: ACGM

### **LBRL 273 - Art and Society in China and Japan**

Studies of the aesthetic traditions of East Asia, courtly and popular, secular and religious; the impact of foreign ideas and the role of art in recent propaganda, architecture and industrial design as well as in traditional modes of expression.

Credits: 4  
GUR Attributes: ACGM

### **LBRL 275 - Humanities of Japan**

Interdisciplinary introduction to Japanese civilization, both traditional and modern, with particular emphasis on religions; historical, artistic, and literary patterns; and societal and cultural ideals.

Credits: 5  
GUR Attributes: ACGM

### **LBRL 276 - Humanities of Africa**

Introduction to the cultural heritage of sub-Saharan Africa and to the contemporary civilization that draws upon it; emphasis on the process by which Africans currently build and use coherent accounts of their heritage.

Credits: 5  
GUR Attributes: ACGM

### **LBRL 277 - Humanities of China**

Interdisciplinary introduction to Chinese civilization, traditional and modern. Emphasis on religions; intellectual, artistic and literary patterns; and societal and cultural ideals.

Credits: 5  
GUR Attributes: ACGM

### **LBRL 278 - Humanities of Islamic Civilization**

Interdisciplinary introduction to Islamic Civilizations with an emphasis on shared religious, cultural, and societal ideals and their adaptation in various historical and geographic contexts.

Credits: 5  
GUR Attributes: ACGM

### **LBRL 281 - Representations of Otherness**

Examination of images and narratives of the Other in major works of modern literature, art and film from the 19th century to the present. Themes include the roles of the unconscious, languages, gender and politics in the construction and destruction of self and others.

Credits: 4  
GUR Attributes: ACGM

### **LBRL 283 - Religion and Globalization**

Focus on religious responses to globalization through case studies of modern religious

movements. Case studies will be chosen to explore cultural interaction and religious change in a world shaped by technological revolutions and increased communication, information, and migration.

Credits: 5

GUR Attributes: ACGM

### **LBRL 301 - Historical Methods in the Humanities**

Methods of cultural and intellectual history. Locating texts in their historical and cultural contexts by analyzing their authors, audiences and arguments.

**Prerequisites & Notes:** Junior status or permission of instructor; one from LBRL 121, LBRL 122, LBRL 123, HIST 111, HIST 112, HIST 113.  
Credits: 5

### **LBRL 302 - Methods of Interdisciplinary Study**

Exploration of techniques of interdisciplinary investigation through analysis of a major literary text in its cultural and historical context; exercises in the use of the library as a research tool; preparation of a seminar paper. Ordinarily offered spring quarter only.

**Prerequisites & Notes:** LBRL 121, LBRL 122; average grade of B in LBRL courses and permission of instructor.  
Credits: 5

### **LBRL 303 - Methods in the Study of Religion**

An examination of the academic study of religion as a problem in the interaction of theory, method, and the history of culture. Consideration of various approaches to understanding and explaining religion from the Enlightenment to the present.

**Prerequisites & Notes:** One course from LBRL 231, LBRL 271, LBRL 278, LBRL 380, LBRL 382 or permission of instructor.  
Credits: 5

### **LBRL 321 - Between Renaissance and Inquisition: Censorship and Religious Conflict in Spain's Golden Age**

Early modern Spain has simultaneously been perceived as an artistic Golden Age (which saw a flourishing production of plays, verse, and prose)

and as an era in which censorship and religious intolerance closed off Spain and its empire to the wider world. The course explores this central paradox in Spanish religious, cultural and intellectual history, through an interdisciplinary examination of various literary genres, trial records, painting and architecture. It examines the foundation of the Spanish Inquisition in a society which included Christians, Muslims, and Jews; it traces the development of Catholic laws and courts both in European contexts and in Spain's American colonies.

**Prerequisites & Notes:** One LBRL course or HIST 112 or HNRS 104 or instructor permission.

Credits: 5

GUR Attributes: HUM

### **LBRL 323 - The Romantic Paradox: Love, Life and Death**

Study of Romanticism as a complex, international cultural movement originating in the late 18th century with continuing vitality and influence into the present. Exploration of characteristic Romantic tensions: the desire for unity, harmony, infinity and beauty vs. the experience of fragmentation, limitation and loss. Analysis of texts and films representing various facets of the Romantic mind.

**Prerequisites & Notes:** Junior status or permission of instructor.

Credits: 4

GUR Attributes: HUM

### **LBRL 325 - Surveillance, Voyeurism and the Culture of Suspicion**

This course will trace the concept of surveillance and its connection to voyeurism as the primordial desire to see from the 18th century to the present. Through careful reading of primary and secondary sources of literature, sociology, philosophy, history, journalism, and film studies and analysis of visual material, this course will examine the paradox within the concept of surveillance which can be understood as a means to implement security and insure peace as well as constitute a threat to private and civic rights and freedoms. Formally, the course will alternate between the analysis of visual material and printed material. Class time is divided into lecture, organized class discussion and student presentations.

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Credits: 4

GUR Attributes: HUM

### **LBRL 332 - World Religions**

Beliefs and practices of major world religions; development of religious traditions; historical and phenomenological approaches; religion in modern society.

**Prerequisites & Notes:** Junior status or permission of instructor.

Credits: 5

GUR Attributes: HUM

### **LBRL 333 - Religion in America**

Religious traditions, values and institutions in American culture; focus on pluralism; attention to contemporary issues and events; interdisciplinary perspective.

**Prerequisites & Notes:** Junior status or permission of instructor.

Credits: 5

GUR Attributes: HUM

### **LBRL 334 - Hebrew Bible and the Religion of Ancient Israel**

A survey of representative sections of the Hebrew Bible (the Old Testament for Christians) and related literature. Biblical texts are analyzed as expressions of the ways in which groups or individuals understood themselves, their world, and God. The historical and cultural contexts in which the texts were originally written are emphasized with attention to the ways that elements of the Biblical tradition developed under changing historical circumstances.

**Prerequisites & Notes:** Junior status

Credits: 5

GUR Attributes: ACGM

### **LBRL 336 - New Testament and Early Christianity**

A survey of the New Testament and related early Christian literature. The texts are analyzed as expressions of the ways in which groups or individuals understood themselves, their world, and God. The historical and cultural contexts in which the texts were written are emphasized with

attention to the variety of early Christian traditions and their development under changing historical circumstances.

**Prerequisites & Notes:** Junior status

Credits: 5

GUR Attributes: HUM

### **LBRL 338 - Mysticism**

An interdisciplinary exploration of the nature and variety of mysticism. Theoretical debates concerning the psychological roots and cultural conditioning of mysticism. Includes an examination of important mystics in the Christian, Islamic and East Asian traditions along with their significance for their respective societies.

**Prerequisites & Notes:** Junior status or permission of instructor.

Credits: 5

GUR Attributes: ACGM

### **LBRL 340 - Sufism: The Islamic Mystical Tradition**

This course explores the Islamic mystical tradition, or Sufism. For long centuries Sufism has contributed to the development of Islamic religious thought, to the global diffusion of the faith, and to the shaping of religious experiences and practices of Muslims in the Middle East, Africa and Asia. It has also enriched the creative and aesthetic aspects of Islamic civilization, most notably music and poetry. We will examine Sufi devotional practices and rituals, teachings of some spiritual masters, and the historical development and growth of Sufism and Sufi orders.

**Prerequisites & Notes:** Junior status; ENG 101 and 30 credits; and one course from: LBRL 231, LBRL 271, LBRL 278, LBRL 332, LBRL 378, or HIST 287, HIST 406; or instructor permission.

Credits: 4

GUR Attributes: CCOM

### **LBRL 360 - China and the Emerging World Economy: From Antiquity to the Early Modern**

The focus of this course will be early stages of the unfolding of 'globalization' in Eurasia, from antiquity into the early modern period, with particular attention given to China's important role in these developments, and how it was affected in

turn.

**Prerequisites & Notes:** Junior status or permission of instructor.

Credits: 5

GUR Attributes: ACGM

### **LBRL 362 - Islam and Muslims in the Indian Ocean World**

Explores cross cultural contacts in the Indian Ocean world from East Africa, Arabia and the Persian Gulf to South and Southeast Asia, and the history and role of Islam and Muslims from the 14th century to the present. Focuses on texts by or about Muslim travelers - Sufis, pilgrims, scholars, and merchants - and their creation networks, identities, and "Muslim spaces," to show that some aspects of globalization have a long history in the Indian Ocean.

**Prerequisites & Notes:** Junior status or permission of instructor.

Credits: 4

GUR Attributes: ACGM

### **LBRL 372 - Postcolonial Novels: Art, Rhetoric and Social Context**

Critical readings of postcolonial novels. Close attention to how they have been shaped as artistic wholes, and how they try to shape emotions and beliefs of readers. Reading beyond the novels about contexts which they assume and incompletely express: change and the absence of change in postcolonial societies.

**Prerequisites & Notes:** Junior status or permission of instructor.

Credits: 4

GUR Attributes: ACGM

### **LBRL 375 - Buddhism**

Beginning with a broad overview of the teachings of Buddhism and its core beliefs and practices, this course will then turn to detailed study of the doctrines and institutions of particular Buddhist traditions.

**Prerequisites & Notes:** One course from: LBRL 231, LBRL 271, LBRL 275, LBRL 277, LBRL 380, LBRL 382; HIST 370.

Credits: 5

### **LBRL 378 - Religion and Society in India**

Examination of major Indian religious traditions - Hindu and Islamic - as ritual systems, belief and value systems, and systems of social identification; emphasis on the relation of religion to social and gender identities, communal politics, and social change, chiefly in the modern period.

**Prerequisites & Notes:** Junior status or permission of instructor.

Credits: 4

GUR Attributes: ACGM

### **LBRL 380 - Religion and Society in China**

A detailed examination of the major religious and philosophical traditions of pre-modern China: the native traditions of Confucianism, Daoism, ancestor worship and popular religion, as well as Buddhism, which came to East Asia from India. Particular attention is given to the interaction and intertwining of these traditions, and of the ways they shaped and supported the lives of individuals and communities.

Credits: 5

GUR Attributes: ACGM

### **LBRL 382 - Religion and Society in Japan**

A detailed examination of the major religious and philosophical traditions of Japan: the agrarian religion of Shintoism, the Confucian system of ethics, imported from China, and Buddhism, which though originally from India also came to Japan through China. Particular attention is given to the interaction and intertwining of these traditions, and of the ways they shaped and supported the lives of individuals and communities.

Credits: 5

GUR Attributes: ACGM

### **LBRL 421 - Senior Seminar: Approaches to Cultural History**

Methodologies of cultural history, by nature interdisciplinary. Students read and analyze great figures in the field, such as Burckhardt, Lovejoy, Huizinga, and Gombrich, to discover methodologies used. Topics may include the nature of evidence and arguments in cultural history, and the history



## LIBERAL STUDIES

of ideas, rhetoric and aesthetics in writing cultural history, roles of authorial voice, and relations of writing cultural history to intellectual, social and cultural contexts. See instructor for syllabus and specific readings and topics. Repeatable with different topics to a maximum of 10 credits.

**Prerequisites & Notes:** LBRL 302 and permission of instructor.  
Credits: 5

### **LBRL 422 - Senior Seminar: Literary Traditions in Western Culture**

How Western culture has understood, developed and transformed its major literary monuments. Students read works of major figures, and examine how in later eras these figures and their works were read and used, and discover purposes and contexts of such use. Examples may include Greek Sophists versus Plato on Homer, Dante's use of Homer and Virgil, Biblical material in Milton. See instructor for syllabus and specific readings and topics. Repeatable with different topics to a maximum of 10 credits.

**Prerequisites & Notes:** LBRL 302 and permission of instructor.  
Credits: 5

### **LBRL 423 - Senior Seminar: Self, Culture and Society**

Analysis of individual identity and social forms in a non-Western culture. Use of primary sources (in translation). Consideration of methodologies needed to analyze sources from non-Western cultures. Cross-cultural comparison of conceptions of the individual and his/her place in society and the universe. See instructor for syllabus and specific readings and topics. Repeatable with different topics to a maximum of 10 credits.

**Prerequisites & Notes:** LBRL 302 and permission of instructor.  
Credits: 5

### **LBRL 424 - Senior Seminar: Social Change in Cross-Cultural Contexts**

Changes associated with European expansion in Asia and Africa and direct and indirect European colonial rule; course may include topics on Western education, religious reform movements, nationalist

and postcolonial political movements, and new intellectual, literary and cultural movements. Emphasis on finding and using primary sources, application of methodologies from a variety of disciplines to understand complex patterns of social change. See instructor for syllabus and specific readings and topics. Repeatable with different topics to a maximum of 10 credits.

**Prerequisites & Notes:** LBRL 302 and permission of instructor.  
Credits: 5

### **LBRL 430 - The Humanities and the Contemporary Workplace**

Connects liberal-arts curriculum to workplace issues. Introduces students to professional work environments through placement in local non-profit agencies. Carries service-learning credit.

**Prerequisites & Notes:** Permission of Instructor.  
Credits: 3

### **LBRL 478 - Renewal and Reform in the Islamic World Since the Eighteenth Century**

An exploration of the ideological foundations and historical contexts of reform movements in the Middle East, Asia and Africa from the 18th century up to the various contemporary Salafi movements commonly recognized as 'fundamentalist.' Islamic responses to imperialism, colonialism, and 'modernization' through the analysis of texts written by major Muslim modernist and revivalist thinkers such as al-Afghani, Sayyid Ahmad Khan, Abduh, Mawdudi, Qutb, Khomeini and others.

**Prerequisites & Notes:** One from: LBRL 231, LBRL 271, LBRL 278, LBRL 332, LBRL 378, HIST 287, HIST 487B.  
Credits: 5

### **LBRL 498 - Readings for Research in Humanities**

Readings in Humanities under advisement in preparation for writing senior paper. Students develop a reading schedule and meet weekly with their faculty advisor; prepare and submit a formal proposal for the senior paper, on a topic developed by the student in consultation with their faculty advisor.

**Prerequisites & Notes:** Senior status. LBRL 302; and one course from: LBRL 421, LBRL 422, LBRL 423, LBRL 424 or concurrent; permission of instructor.

Credits: 2

**LBRL 499 - Research in Humanities**

Research and writing of a formal paper on a topic developed by the student in consultation with a

faculty advisor. LBRL 498, Readings for Research in Humanities (2), required in the quarter prior to LBRL 499.

**Prerequisites & Notes:** Senior status. One course from LBRL 421, LBRL 422, LBRL 423, LBRL 424, LBRL 498, permission of instructor.

Credits: 3

# Linguistics

## Introduction

Linguistics, the science of language, is an interdisciplinary field that relates to the diversity of the cultures and languages of the world. It is an integral part of most serious pursuits dealing with aspects of language study and/or analysis. As the boundaries of the world change, an understanding of individual languages and cultures becomes increasingly more important. Communication in this complex society requires knowledge of the workings of languages as well as their interrelationship with their respective cultures. All linguistics majors are expected to acquire a rudimentary knowledge of the functions of language at various levels and knowledge of the techniques/methods used in language analysis. A student of linguistics will thereby significantly advance his/her appreciation of linguistic and cultural diversity.

Students interested in pursuing a major or minor in linguistics should contact Edward Vajda, Humanities 255, 360-650-4856, for advisement. Fax: 360-650-6110, e-mail [edward.vajda@wwu.edu](mailto:edward.vajda@wwu.edu). Website: <http://linguistics.wwu.edu/>.

## Faculty

**EDWARD J. VAJDA**, Director. Modern and Classical Languages. Morphology, language typology, historical-comparative linguistics.

**EVA BAHARAV**, Communication Sciences and Disorders. Language acquisition, language analysis, language disorders.

**JORDAN BREWER**, Linguistics. Semantics, phonology, phonetics.

**MASANORI DEGUCHI**, Modern and Classical Languages. Japanese linguistics, syntax and semantics.

**KRISTIN DENHAM**, English. Syntactic theory, morphology, sociolinguistics, psycholinguistics, Native American languages.

**KENDRA DOUGLAS**, Modern and Classical Languages. Sociolinguistics, language contact, phonology.

**SHANNON DUBENION-SMITH**, Modern and Classical Languages. Germanic linguistics, syntax, phonology, historical linguistics.

**SHAW N. GYNAN**, Modern and Classical Languages. Hispanic linguistics, sociolinguistics, second language acquisition, syntax and phonology.

**TODD HASKELL**, Psychology. Psychology of language, visual and auditory perception, cognition.

**JAMES W. HEARNE**, Computer Science. General linguistics, computational linguistics, narratology.

**McNEEL JANTZEN**, Psychology. Cognition, speech perception, language acquisition.

**CHRISTINA KEPPIE**, Modern and Classical Languages. Applied French linguistics, sociolinguistics, general linguistics.

**ANNE LOBECK**, English. Syntactic theory, historical linguistics, sociolinguistics.

**NED MARKOSIAN**, Philosophy. Philosophy of language, metaphysics.

**JUDY PINE**, Anthropology. Anthropological linguistics, language and society.

**DWAN SHIPLEY**, Linguistics. General linguistics, sociolinguistics.

**TRISH SKILLMAN**, TESOL. Language, teaching methodologies, sociolinguistics, second language acquisition.

**KATHRYN VULIC**, English. History of the English language, Old English in translation, medieval literatures and cultures.

**RYAN WASSERMAN**, Philosophy. Metaphysics, philosophy of language, epistemology, ethics.

**JANET ZHIQUN XING**, Modern and Classical Languages. Chinese linguistics, historical linguistics, discourse analysis, SLA.

**LINA ZEINE**, Communication Sciences and Disorders. Phonetics, phonological acquisition.

### *Linguistics Area Advisors:*

**English** — Kristin Denham, Anne Lobeck

**Anthropology** — Judy Pine

**Communication Sciences and Disorders** — Eva Baharav, Lina Zeine  
**Computer Sciences** — James W. Hearne  
**Modern and Classical Languages** — Shaw N. Gynan  
**Philosophy** — Ned Markosian  
**Psychology** — Todd Haskell  
**TESOL** — Trish Skillman

## Bachelor of Arts

### Linguistics, BA

Department of Linguistics, College of Humanities and Social Sciences

#### 59 credits

#### Introduction/What is the Study of Linguistics?

Linguistics, the science of language, is an interdisciplinary field which relates to the diversity of the cultures and languages of the world. It is an integral part of most serious pursuits dealing with aspects of language study and analysis. As the boundaries of the world change, an understanding of individual languages and cultures becomes increasingly important. Communication in this complex society requires knowledge of the workings of languages, as well as their interrelationship with their respective cultures.

#### Why Consider a Linguistics Major?

All Linguistics majors are expected to acquire knowledge of the functions of language at various levels and knowledge of the techniques and methods used in language analysis. A student of Linguistics will thereby significantly advance his or her appreciation of linguistic and cultural diversity. Students who major in linguistics acquire valuable intellectual skills, including analytic reasoning and argumentation, and learn how to study language scientifically. This means making insightful observations, formulating and testing clear hypotheses, making arguments and drawing conclusions, and communicating findings to a wider community. Linguistics majors are therefore well equipped for a variety of jobs and graduate-level programs.

#### Contact Information

##### Linguistics Director

Edward Vajda  
 Miller Hall 217D  
 360-650-4856  
 Edward.Vajda@wwu.edu

#### Sample Careers

Higher Education research and teaching: linguistics, philosophy, psychology, speech sciences, anthropology, computer science, English, modern and classical languages | K-12 Teaching (World Languages, ESL, literacy) | Computer Industry (speech recognition, natural language processing, AI) | Translating and Interpreting | Language documentation and fieldwork | Publishing (editing, writing) | Lexicography (dictionary research and editing) | Law (forensic linguistics)

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

To declare, a student must have completed the following requirements:

- LING 201 or ENGL 370 or TESL 401 with a grade of "B-" or better
- Minimum cumulative GPA of at least 2.5.

# LINGUISTICS

Students should contact the Linguistics Director when ready to declare the major.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

To declare a major in linguistics, students must have completed the introductory course (LING 201 or ENG 370 or TESL 401) with a grade of B- or better and have a minimum overall GPA of at least 2.5.

## Requirements

- For native speakers of Indo-European languages, one year of a non-IE language (Arabic, Chinese, Japanese, Korean, ASL, or other) or second year of an Indo-European language; alternative arrangements may be made for native speakers of non-Indo-European languages (12-15 credits)
- One course from:
  - LING 201 - Introduction to Linguistics Science
  - ENG 370 - Introduction to Language
  - TESL 401 - Introduction to English Linguistics for TESOL
- One course from:
  - LING 204 - Sociolinguistics
  - ENG 270 - Introduction to Language and Society
  - LING 314 - Phonetics
  - LING 315 - Phonology
  - LING 321 - Syntax I
  - LING 322 - Syntax II
  - LING 331 - Semantics
- Two LING 400-level courses (LING 425 cannot count towards the major)
- LING 099 - Linguistics Colloquium A presentation or co-presentation at one of the scheduled student colloquia is a requirement for completion of the major. Students are required to enroll for LING 099 during the quarter in which the presentation is given.
- Additional credit concentration with at least one additional upper division course in related department under advisement:
  - English option*
    - Eng 370 (replaces Ling 201)
    - Selected courses (may include Eng 436, 438, 439, 442) under departmental advisement
  - Anthropology option*
    - ANTH 247 - Introduction to Linguistic Anthropology
    - Electives under advisement to include anthropology linguistics courses
    - ANTH 347 - The Ethnography of Communication
    - ANTH 447 - Anthropological Semiotics
    - and select sections of ANTH 490
  - Communication Sciences and Disorders option*
    - Selected courses under departmental advisement from:
      - CSD 352 - Anatomy and Physiology of Speech Mechanisms
      - CSD 353 - Speech Science
      - CSD 354 - Speech and Language Development in Children
      - CSD 356 - Phonetics
      - CSD 361 - Language Disorders, Birth to Five
      - CSD 373 - Introduction to Phonology

- CSD 451 - Language Disorders II  
*Computer Sciences option*  
Applicable courses in computational linguistics under departmental advisement  
Additional work under advisement  
*Modern and Classical Languages option*  
314 course in the language (4 credits)  
Additional credits under advisement; this may include a second foreign language,  
additional coursework in Linguistics or LANG 410-420  
*Philosophy option*
  - PHIL 102 - Introduction to Logic
  - PHIL 202 - Intermediate Logic
  - PHIL 403 - Philosophy of Language
- *Psychology option*
  - PSY 101 - Introduction to Psychology
  - PSY 210 - Cognition
  - PSY 220 - Introduction to Behavioral Neuroscience
  - PSY 301 - Overview of Research Methods
  - PSY 318 - Psychology of Language
- *TESOL/Bilingual Education option*  
Completion of the TESOL/Bilingual Education Certificate or Minor, coursework under advisement.

## Minor

### Linguistics Minor

Department of Linguistics, College of Humanities and Social Sciences

#### 25 credits

#### Introduction/What is the Study of Linguistics?

#### Why Consider a Linguistics Minor?

##### Contact Information

##### Linguistics Director

Edward Vajda  
Miller Hall 217D  
360-650-4856  
Edward.Vajda@wwu.edu

##### Sample Careers

##### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

# LINGUISTICS

## Requirements

- LING 314 - Phonetics
- LING 315 - Phonology
- LING 321 - Syntax I
- LING 331 - Semantics
- One course from:
  - LING 201 - Introduction to Linguistics Science
  - ENG 370 - Introduction to Language
  - TESL 401 - Introduction to English Linguistics for TESOL
- One course from:
  - LING 204 - Sociolinguistics
  - ENG 270 - Introduction to Language and Society

## Linguistics Courses

### **LING 099 - Linguistics Colloquium**

Presentation of a paper at a student linguistics colloquium is a requirement for graduation as a linguistics major. The presentation may be a modification of a paper presented in an upper division course subject to the approval of the instructor. Students must sign up for LING 099 during the quarter of their presentation. This course carries no credit. S/U grading.

**Prerequisites & Notes:** Junior status and completion of 4 core curriculum courses in linguistics.

Credits: 0

Grade Mode: S/U

### **LING 201 - Introduction to Linguistics Science**

Survey of major subfields of linguistics including phonetics, phonology, morphology, syntax, semantics, language acquisition and sociolinguistics.

Credits: 5

GUR Attributes: SSC

### **LING 204 - Sociolinguistics**

Examines the relationship between society and language, concentrating on the following areas: address forms, variation theory, language use, sociolinguistics and education, multilingualism, language policy and language attitudes.

Credits: 4

GUR Attributes: SSC

### **LING 314 - Phonetics**

An introduction to phonetics as a science, its history and contributions. Emphasis is on the function of the mechanism and on the production, perception and transcription of speech sounds used in various languages.

**Prerequisites & Notes:** LING 201 or ENG 370

Credits: 4

### **LING 315 - Phonology**

Theory, methods and problems of phonological description and analysis.

**Prerequisites & Notes:** LING 201 or ENG 370; and LING 314.

Credits: 4

### **LING 321 - Syntax I**

Theory, methods and problems of syntactic description and analysis.

**Prerequisites & Notes:** LING 201 or ENG 370.

Credits: 4

### **LING 322 - Syntax II**

Advanced topics in theory, methods and problems of syntactic description and analysis.

**Prerequisites & Notes:** LING 201 or ENG 370;

and LING 321.

Credits: 4

**LING 331 - Semantics**

Advanced topics in theory, methods and problems of semantic description and analysis.

**Prerequisites & Notes:** LING 201 or ENG 370.

Credits: 4

**LING 402 - Topics in Linguistics**

Readings and/or directed research as determined by instructor. Variable topic. Repeatable.

**Prerequisites & Notes:** LING 201 or ENG 370

Credits: 3-5

**LING 425 - Linguistics Tutoring**

Student selected for tutoring must dedicate four hours per week to provide help to other students, primarily those enrolled in LING 201 or LING 204. Permission may also be given to assist with other linguistics courses completed with outstanding achievement. Students may be requested to lead group sessions or work with students individually. Expertise in phonetics/phonology or morphology/syntax is desirable. S/U grading.

**Prerequisites & Notes:** LING 201, LING 204 and two upper division core courses

Credits: 2

Grade Mode: S/U



# Modern and Classical Languages

## Introduction

The Department of Modern and Classical Languages, in fulfillment of the University's stated goals, provides to Western Washington University students the skills that are necessary to learn first-hand about world societies. To that end, the department believes that the best way to understand a culture is directly through its language(s). Therefore, the department offers students the opportunity to acquire three types of proficiencies: the language skills that make for successful communication, the cultural competencies that build global respect and responsibility, as well as the creative and interpretive aptitudes that underscore an understanding of the history and aesthetic expressions of a given culture. Ultimately, students graduate from the department with valuable skills for succeeding in the workplace and for supporting global citizenship.

## Faculty

**MARÍA PAREDES MÉNDEZ** (2002) Chair and Associate Professor of Spanish. MA, PhD, University of Kansas.

**SANDRA ALFERS** (2008) Associate Professor of German. BA, MA, University of Nebraska; PhD, University of Massachusetts.

**BLANCA ARANDA** (2012) Assistant Professor of Spanish. BA Universidad Mayor de San Andrés; MA and PhD University of Oregon.

**BRENT J. CARBAJAL** (1997) Professor of Spanish and Provost. BA, Lewis and Clark College; MA, PhD, University of Washington.

**MASANORI DEGUCHI** (2006) Associate Professor of Japanese and Linguistics. BA, Kansai Gaidai University; MA, PhD, Indiana University.

**SHANNON DUBENION-SMITH** (2008) Associate Professor of German and Linguistics. BA University of Michigan-Ann Arbor; MA, PhD, University of Wisconsin-Madison.

**PETRA S. FIERO** (1995) Professor of German. MA, PhD, University of Nebraska, Lincoln.

**HUGO GARCÍA** (2006) Associate Professor of Spanish. BA, University of Havana, Cuba; MA, St. John's University; PhD, Ohio State University.

**SHAW N. GYNAN** (1986) Professor of Spanish and Linguistics. BS, Georgetown University; MA, University of Texas-El Paso; PhD, University of Texas-Austin.

**VICKI L. HAMBLIN** (1989) Professor of French and Director of the Center for International Studies. BS, Southwest Missouri State University; MA, Arizona State University; PhD, University of Arizona.

**CÉCILE HANANIA** (2002) Professor of French. PhD, University of Maryland; Doctorat, Université Paris; Maitrise, Université de Provence.

**JOAN M. HOFFMAN** (1994) Professor of Spanish. BA, University of Washington; MA, University of North Carolina-Chapel Hill; PhD, Indiana University.

**FOONG JANICE KAM** (2012) Assistant Professor of Chinese; BA, Dartmouth College; PhD, Stanford University.

**CHRISTINA KEPPIE** (2008) Assistant Professor of French and Linguistics. BA University of New Brunswick; MA Carleton University; PhD, University of Alberta.

**EDWARD OUSSELIN** (2001) Professor of French. MBA, University of Kentucky; PhD, Ohio State University.

**CORNELIUS PARTSCH** (2003) Professor of German. MA, PhD, Brown University.

**CHARLES PATTERSON** (2012) Assistant Professor of Spanish. BA, Utah State University; MA, University of New Mexico; PhD, University of Texas at Austin.

**DANIEL RANGEL GUERRERO** (1969) Associate Professor of Spanish. AA, Sierra College; BA, Stanford University; MA, PhD, University of Oregon.

**MASSIMILIANO TOMASI** (1998) Professor of Japanese and Director of the East Asian Studies Program. Laurea (BA), University of Florence, Italy; MA, PhD, Nagoya University, Japan.

**EDWARD J. VAJDA** (1987) Professor of Russian and Linguistics and Director of the Linguistics Program. BA, Indiana University; MA, PhD, University of Washington.

**JANET Z. XING** (1999), Professor of Chinese and Linguistics. BA, Shanxi University, China; MA, Eastern Michigan University; PhD, University of Michigan-Ann Arbor.

**MICHIKO YUSA** (1983) Professor of Japanese and East Asian Studies. BA, International Christian University, Tokyo; MA, C Phil, PhD, University of California-Santa Barbara.

## Other Departmental Information

### *Mid-Program Checkpoint*

Students seeking to complete a BA in French, German, Japanese or Spanish within a four-year time span should have completed the second-year sequence (e.g., 201, 202, 203) in the language by the start of their junior year. Otherwise it will be difficult or impossible to complete this degree program within two additional years.

### *Experienced Speakers of a Language*

First-year courses in the Department of Modern and Classical Languages are designed for students with minimal or no previous exposure to the target language. Students enrolling in second-year courses should have no more than foundational knowledge, equivalent to the first year. Students having previous experience with the language, such as attending junior high school, high school, community or technical college, or university in which the language in question was the primary language of instruction, may be required to begin study at a more appropriate level, if available. The decision will be left to the discretion of the instructor and the language department.

### *Study Abroad*

Students can increase language proficiency through travel, work and study abroad. WWU offers programs at study centers in Morelia, Mexico; Quito, Ecuador; Valdivia, Chile; Segovia, Oviedo and Cadiz, Spain; Angers and Rennes, France; Vienna, Austria; Macerata and Siena, Italy; Tokyo, Japan; and Beijing and Kunming, China. Designed to give students a complete foreign study experience in the host country, each program includes numerous excursions to historical and cultural sites and a wide range of activities which complement formal classroom work. WWU also sponsors academic-year university exchange programs (a) with Asia, Tsuda and Obirin universities in Tokyo, Japan; (b) Beijing Foreign Studies University; and (c) with ISEP at 70 universities in 32 countries. Students also may access language schools in Québec, Costa Rica, Germany and many other countries. Special application and registration procedures are required for participation in foreign study programs, and students should consult with the International Programs and Exchanges Office, Miller Hall 208, well in advance of their planned quarter abroad, as well as with the coordinator of the language section to discuss transfer credit.

### *Advanced Placement Credit*

The student who has studied a foreign language in high school may be granted additional university credit upon completion of foreign language courses at WWU. Advanced placement credit is not awarded for 100-level courses. Request for advanced placement credit is to be made to the coordinator of the language section.

### *Transfer Placement*

Students transferring from another university with some course work in a foreign language should consult with the language coordinator of the section about placement. Transfer students majoring in a foreign language must complete at least 9 credits in residence, including two fourth-year stylistics/composition courses (401/402).

# MODERN AND CLASSICAL LANGUAGES

## *Attendance*

The learning and studying of a foreign language involves a level of student participation considerably higher than that required by some disciplines. It is the students' responsibility to ascertain the specific attendance requirements of their individual instructors.

## *Endorsement of Post-baccalaureate Students*

Post-baccalaureate students with a degree in a foreign language are required to:

- Have a GPA of 3.00 or above in the major
- Obtain a letter of recommendation from a faculty member in reference to the candidate's potential as a teacher
- Satisfactorily pass the departmental oral proficiency exam given by appointment only
- Complete the endorsement sequence LANG 410, 420
- Complete 314 (phonetics) in language to be endorsed

Additional work in the language may also be required. Students should consult the coordinator of the language section.

## **Bachelor of Arts**

### **French with a Teaching Endorsement, BA**

Department of Modern and Classical Languages, College of Humanities and Social Sciences

#### **Introduction/What is the Study of French?**

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language skills courses, as well as a significant number of courses in Linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable high school students to begin the acquisition of foreign languages.

#### **Why Consider a Teaching Endorsement in French Major?**

The department provides students the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

The BA in French leads to a BA degree without teacher certification. In order to receive a recommendation for state of Washington certification students must complete the "teacher certification" program which is offered by the Department of Secondary Education.

See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### Contact Information

**Modern and Classical  
Languages**

**French Advisor**  
Dr. Cecile Hanania

**World Languages -  
Education Advisor**

**Department Office**

Miller Hall 223  
360-650-3918

Miller Hall 126  
360-650-4858  
Cecile.Hanania@wwu.edu

Shaw Gynan  
Miller Hall 215A  
360-650-4853  
Shaw.Gynan@wwu.edu

**Secondary Education Program Manager Secondary Education Program Manager**

Debbie Gramm  
Miller Hall 401A  
360-650-3327  
Debbie.Gramm@wwu.edu

Jenna Cecka  
Miller Hall 401C  
360-650-3327  
Janna.Cecka@wwu.edu

**Secondary Education Website**  
<http://www.wce.wwu.edu/Depts/SEC>

Sample Careers

Interpreter | Foreign Correspondent | Foreign Service Officer | FBI Agent | Educator | Linguist | Travel Writer  
| All careers involving communication

Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Make an appointment with the French advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Undergraduate Major" form (available at the Department Office)
- An unofficial WWU transcript
- Documentation for courses taken at other colleges or universities
- Documentation for any study-abroad credits earned

**Grade Requirements**

Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

A GPA of 3.00 is required in the language major and a GPA of 3.00 or above is required in endorsement courses.

Requirements

**Complete both A and B:**

A. Language Component (55 credits)

- French, BA

B. Endorsement Requirements (10 credits)

- LANG 410 - World Language Instruction: Theory and Method I
- LANG 420 - World Language Instruction: Theory and Method II
- FREN 425 - Teaching-Learning Processes in Elementary French
  - Be recommended by a faculty member in the major field
  - Pass the departmental foreign language oral proficiency exam given during spring quarter
  - Complete the professional preparation program in secondary education. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

Additional Requirements

# MODERN AND CLASSICAL LANGUAGES

## Secondary Education Professional Program Requirements (68 credits)

- SEC 301 - Educational Psychology I: Development and Individual Differences
- SEC 302 - Educational Psychology II: Motivation, Learning and Assessment
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching Laboratory
- SEC 435 - Middle Level Practicum
- SEC 436 - Secondary School Practicum
- SEC 444 - Supporting Teaching and Learning with Technology
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

## French, BA

Department of Modern and Classical Languages, College of Humanities and Social Sciences

### 55 credits

#### Introduction/What is the Study of French?

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language skills courses, as well as a significant number of courses in Linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable high school students to begin the acquisition of foreign languages.

#### Why Consider a French Major?

The department provides students the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

#### Contact Information

##### Modern and Classical Languages

##### Department Office

Miller Hall 223  
360-650-3918

##### French Advisor

Dr. Cecile Hanania  
Miller Hall 126  
360-650-4858  
Cecile.Hanania@wwu.edu

### Sample Careers

Interpreter | Foreign Correspondent | Foreign Service Officer | FBI Agent | Educator | Linguist | Travel Writer  
| All careers involving communication

### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Make an appointment with the French advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Undergraduate Major" form (available at the Department Office)
- An unofficial WWU transcript
- Documentation for courses taken at other colleges or universities
- Documentation for any study-abroad credits earned

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in major is required.

### Requirements

- Maximum of 15 credits at the 200 level
- FREN 301 - Grammar Review
- FREN 302 - Written Exposition
- FREN 314 - Phonetics
- One course from:
    - FREN 331 - La France: société et culture
    - FREN 332 - Civilisation Et Culture Du Quebec
  - Two courses from:
    - FREN 340 - Introduction to French Literature I
    - FREN 341 - Introduction to French Literature II
    - FREN 342 - Introduction to French Literature III
- FREN 385 - Culture and Conversation
- FREN 401 - Elements De Stylistique (must be taken on campus)
- and one other 400-level French course

**NOTE:** FREN 425 is not applicable to the major

### French/German, BA

Department of Modern and Classical Languages, College of Humanities and Social Sciences

### 90 credits

#### Introduction/What is the Study of French/German?

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language skills courses, as well as a significant number of courses in Linguistics.

## MODERN AND CLASSICAL LANGUAGES

Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable high school students to begin the acquisition of foreign languages.

### Why Consider a French/German Major?

The department provides students the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

#### Contact Information

##### Modern and Classical Languages

##### Department Office

Miller Hall 223  
360-650-3918

##### French Advisor

Dr. Cecile Hanania  
Miller Hall 126  
360-650-4858  
Cecile.Hanania@wwu.edu

##### German Advisor

Petra S. Fiero  
Miller Hall 217A  
360-650-4860  
Petra.Fiero@wwu.edu

#### Sample Careers

Interpreter | Foreign Correspondent | Foreign Service Officer | FBI Agent | Educator | Linguist | Travel Writer  
| All careers involving communication

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Make an appointment with the French and German advisors.

When meeting with an advisor, you should bring:

- An "Official Declaration of Undergraduate Major" form (available at the Department Office)
- An unofficial WWU transcript
- Documentation for courses taken at other colleges or universities
- Documentation for any study-abroad credits earned

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in both languages is required.

#### Requirements

- 45 credits at the 200 level or above in a first language, 45 credits at the 200 level or above in a second language (90 credits total)
- Student must successfully complete the most advanced skills course in both languages (must be taken on campus) as well as at least one course per language in culture, literature, and phonetics; limit of 15 credits at 200 level per language

### French/Spanish, BA

Department of Modern and Classical Languages, College of Humanities and Social Sciences

#### 90 credits

**Introduction/What is the Study of French/Spanish?**

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language skills courses, as well as a significant number of courses in Linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable high school students to begin the acquisition of foreign languages.

**Why Consider a French/Spanish Major?**

The department provides students the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

Contact Information		
<b>French Advisor</b>	<b>Spanish Advisor</b>	<b>Modern and Classical Languages Department Office</b>
Dr. Edward Ousselin	Shaw Gynan	Miller Hall 223
Miller Hall 216A	Miller Hall 215A	360-650-3918
360-650-2092	360-650-4853	
Edward.Ousselin@wwu.edu	Shaw.Gynan@wwu.edu	
Sample Careers		
Interpreter   Foreign Correspondent   Foreign Service Officer   FBI Agent   Educator   Linguist   Travel Writer   All careers involving communication		
Major/Career Resources		
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>		

**How to Declare (Admission and Declaration Process):**

Make an appointment with the French and Spanish advisors.

When meeting with an advisor, you should bring:

- An "Official Declaration of Undergraduate Major" form (available at the Department Office)
- An unofficial WWU transcript
- Documentation for courses taken at other colleges or universities
- Documentation for any study-abroad credits earned

Students seeking admission to the French/Spanish major must meet the following requirements:

- Completion of SPAN 203 with a "B" or better (transfer students must meet the same requirement for any course accepted as an equivalent to SPAN 203)
- Complete at least one Spanish course at Western
- Submit application (available from Spanish advisor or department office)
- Students meeting qualifications but not admitted because of space limitations may reapply

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in both languages is required.



# MODERN AND CLASSICAL LANGUAGES

## Requirements

- 45 credits at the 200 level or above in a first language, 45 credits at the 200 level or above in a second language (90 credits total)
- Student must successfully complete the most advanced skills course in both languages (must be taken on campus) as well as at least one course per language in culture, literature, and phonetics; limit of 15 credits at 200 level per language

## German with a Teaching Endorsement, BA

Department of Modern and Classical Languages, College of Humanities and Social Sciences

### Introduction/What is the Study of German?

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language structure through a full range of language skills courses, as well as a significant number of courses in linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable high school students to begin the acquisition of foreign languages.

### Why Consider a Teaching Endorsement in German Major?

The BA in German leads to a BA degree without teacher certification. In order to receive a recommendation for state of Washington certification students must complete the "teacher certification" program which is offered by the Department of Secondary Education.

See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

Regulations for teaching endorsement are subject to change. For teaching endorsement program, contact the foreign language endorsement advisor.

Contact Information		
<b>Modern and Classical Languages Department Office</b> Miller Hall 223 360-650-3918	<b>German Advisor</b> Petra S. Fiero Miller Hall 217A 360-650-4860 Petra.Fiero@wwu.edu	<b>World Languages - Education Advisor</b> Shaw Gynan Miller Hall 215A 360-650-4853 Shaw.Gynan@wwu.edu
<b>Secondary Education Website</b> <a href="http://www.wce.wwu.edu/Depts/SEC">http://www.wce.wwu.edu/Depts/SEC</a>	<b>Secondary Education Program Manager</b> Janna Cecka Miller Hall 401C 360-650-3327 Janna.Cecka@wwu.edu	<b>Secondary Education Program Coordinator</b> Debbie Gramm Miller Hall 401A 360-650-3327 Debbie.Gramm@wwu.edu

### Sample Careers

Interpreter | Foreign Correspondent | Foreign Service Officer | FBI Agent | Educator | Linguist | Travel Writer  
| All careers involving communication

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Make an appointment with the German advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Undergraduate Major" form (available at the Department Office)
- An unofficial WWU transcript
- Documentation for courses taken at other colleges or universities
- Documentation for any study-abroad credits earned

**Grade Requirements**

Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

A GPA of 3.00 is required in the language major and a GPA of 3.00 or above is required in endorsement courses.

Requirements

**Complete both A and B:**

A. Language Component (55 credits)

- German, BA

B. Endorsement Requirements (10 credits)

- LANG 410 - World Language Instruction: Theory and Method I
- LANG 420 - World Language Instruction: Theory and Method II
- GERM 425 - Teaching-Learning Process in Elementary German
  - Be recommended by a faculty member in the major field
  - Pass the departmental foreign language oral proficiency exam given during spring quarter
  - Complete the professional preparation program in secondary education. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements

Additional Requirements

**Secondary Education Professional Program Requirements (68 credits)**

- SEC 301 - Educational Psychology I: Development and Individual Differences
- SEC 302 - Educational Psychology II: Motivation, Learning and Assessment
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching Laboratory
- SEC 435 - Middle Level Practicum
- SEC 436 - Secondary School Practicum
- SEC 444 - Supporting Teaching and Learning with Technology
- SEC 495 - Internship - Secondary

# MODERN AND CLASSICAL LANGUAGES

- □ SPED 363 - Secondary Students With Special Needs

## German, BA

Department of Modern and Classical Languages, College of Humanities and Social Sciences

### 55 credits

#### Introduction/What is the Study of German?

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language structure through a full range of language skills courses, as well as a significant number of courses in linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable high school students to begin the acquisition of foreign languages.

#### Why Consider a German Major?

The department provides students the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

#### Contact Information

##### Modern and Classical Languages

##### Department Office

Miller Hall 223  
360-650-3918

##### German Advisor

Petra S. Fiero  
Miller Hall 217A  
360-650-4860  
Petra.Fiero@wwu.edu

#### Sample Careers

Interpreter | Foreign Correspondent | Foreign Service Officer | FBI Agent | Educator | Linguist | Travel Writer  
| All careers involving communication

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Make an appointment with the German advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Undergraduate Major" form (available at the Department Office)
- An unofficial WWU transcript
- Documentation for courses taken at other colleges or universities
- Documentation for any study-abroad credits earned

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in major is required.

### Requirements

- Maximum of 15 credits at the 200 level
  - GERM 301 - High Intermediate German: Contexts & Culture
  - GERM 302 - Advanced German: Contexts & Cultures I
  - GERM 314 - Phonetics
  - One course from:
    - GERM 331 - Civilization of Germany Through the Nineteenth Century
    - GERM 332 - German Civilization Today
    - GERM 340 - Introduction to German Literature
    - One course from:
      - GERM 341 - Nineteenth-Century German Literature
      - GERM 343 - Eighteenth-Century German Literature
      - GERM 401 - Advanced German: Contexts & Cultures II (must be taken on campus)
      - GERM 402 - Advanced German: Contexts & Cultures III (must be taken on campus)
      - GERM 450 - Studies in German Literature

**NOTE:** GERM 425 is not applicable to major

## German/Spanish, BA

Department of Modern and Classical Languages, College of Humanities and Social Sciences

### 90 credits

#### Introduction/What is the Study of German/Spanish?

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language structure through a full range of language skills courses, as well as a significant number of courses in linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values. The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable high school students to begin the acquisition of foreign languages.

#### Why Consider a German/Spanish Major?

The department provides students the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

#### Contact Information

## MODERN AND CLASSICAL LANGUAGES

### Modern and Classical Languages

#### Department Office

Miller Hall 223  
360-650-3918

### German Advisor

Petra S. Fiero  
Miller Hall 217A  
360-650-4860  
Petra.Fiero@wwu.edu

### Spanish Advisor

Shaw Gynan  
Miller Hall 215A  
360-650-4853  
Shaw.Gynan@wwu.edu

#### Sample Careers

Interpreter | Foreign Correspondent | Foreign Service Officer | FBI Agent | Educator | Linguist | Travel Writer  
| All careers involving communication

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Make an appointment with the German and Spanish advisors.

- When meeting with the advisor, you should bring:
- An "Official Declaration of Undergraduate Major" form (available at the Department Office)
- An unofficial WWU transcript
- Documentation for courses taken at other colleges or universities
- Documentation for any study-abroad credits earned

Students seeking admission to the German/Spanish major must meet the following requirements:

- Completion of SPAN 203 with a "B" or better (transfer students must meet the same requirement for any course accepted as an equivalent to SPAN 203)
- Complete at least one Spanish course at Western
- Submit application (available from Spanish advisor or department office)
- Students meeting qualifications but not admitted because of space limitations may reapply

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in both languages is required.

#### Requirements

- 45 credits at the 200 level or above in a first language, 45 credits at the 200 level or above in a second language (90 credits total)
- Student must successfully complete the most advanced skills course in both languages (must be taken on campus) as well as at least one course per language in culture, literature, and phonetics; limit of 15 credits at 200 level per language

## Japanese with a Teaching Endorsement, BA

Department of Modern and Classical Languages, College of Humanities and Social Sciences

### Introduction/What is the Study of Japanese?

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language structure through a full range of language skills courses, as well as a significant number of courses in linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign

language teachers so that they may similarly enable high school students to begin the acquisition of foreign languages.

**Why Consider a Teaching Endorsement in Japanese Major?**

The department provides students the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

The BA in Japanese leads to a BA degree without teacher certification. In order to receive a recommendation for state of Washington certification students must complete the "teacher certification" program which is offered by the Department of Secondary Education.

See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements. Regulations for teaching endorsement are subject to change. For teaching endorsement program, contact the foreign language endorsement advisor.

Contact Information		
<p><b>Modern and Classical Languages Department Office</b> Miller Hall 223 360-650-3918</p>	<p><b>Japanese Advisor</b> Dr. Massimiliano Tomasi Miller Hall 222C 360-650-3339 Massimiliano.Tomasi@wwu.edu</p>	<p><b>World Languages - Education Advisor</b> Shaw Gynan Miller Hall 215A 360-650-4853 Shaw.Gynam@wwu.edu</p>
<p><b>Secondary Education Website</b> <a href="http://www.wce.wwu.edu/Depts/SEC">http://www.wce.wwu.edu/Depts/SEC</a></p>	<p><b>Secondary Education Program Manager</b> Janna Cecka Miller Hall 401C 360-650-3327 Janna.Cecka@wwu.edu</p>	<p><b>Secondary Education Program Coordinator</b> Debbie Gramm Miller Hall 401A 360-650-3327 Debbie.Gramm@wwu.edu</p>

**Sample Careers**  
Interpreter | Foreign Correspondent | Foreign Service Officer | FBI Agent | Educator | Linguist | Travel Writer  
| All careers involving communication

**Major/Career Resources**  
[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Make an appointment with the Japanese advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Undergraduate Major" form (available at the Department Office)
- An unofficial WWU transcript
- Documentation for courses taken at other colleges or universities
- Documentation for any study-abroad credits earned

**Grade Requirements**

Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

A GPA of 3.00 is required in the language major and a GPA of 3.00 or above is required in endorsement courses.

# MODERN AND CLASSICAL LANGUAGES

## Requirements

### **Complete both A and B:**

A. Language Component (55 credits)

Japanese, BA

B. Endorsement Requirements (10 credits)

- LANG 410 - World Language Instruction: Theory and Method I
- LANG 420 - World Language Instruction: Theory and Method II
- JAPN 425 - Teaching-Learning Process in Elementary Japanese
  - Be recommended by a faculty member in the major field
  - Pass the departmental foreign language oral proficiency exam given during spring quarter
  - Complete the professional preparation program in secondary education. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

## Additional Requirements

### Secondary Education Professional Program Requirements (68 credits)

- SEC 301 - Educational Psychology I: Development and Individual Differences
- SEC 302 - Educational Psychology II: Motivation, Learning and Assessment
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching Laboratory
- SEC 435 - Middle Level Practicum
- SEC 436 - Secondary School Practicum
- SEC 444 - Supporting Teaching and Learning with Technology
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

## **Japanese, BA**

Department of Modern and Classical Languages, College of Humanities and Social Sciences

### **55 credits**

#### **Introduction/What is the Study of Japanese?**

In keeping with the aim of providing the skills needed to learn about a culture in depth, the department trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language structure through a full range of language skills courses, as well as a significant number of courses in linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values. The department provides instruction in history and culture, as well as literary theory, with an

end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable high school students to begin the acquisition of foreign languages.

### Why Consider a Japanese Major?

The Department of Modern and Classical Languages provides students the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

#### Contact Information

##### Japanese Advisor

Dr. Massimiliano Tomasi  
Miller Hall 222C  
360-650-3339  
Massimiliano.Tomasi@wwu.edu

##### Modern and Classical Languages

**Department Office**  
Miller Hall 223  
360-650-3918

#### Sample Careers

Interpreter | Foreign Correspondent | Foreign Service Officer | FBI Agent | Educator | Linguist | Travel Writer  
| All careers involving communication

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Make an appointment with the Japanese advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Undergraduate Major" form (available at the Department Office)
- An unofficial WWU transcript
- Documentation for courses taken at other colleges or universities
- Documentation for any study-abroad credits earned

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in major is required.

#### Requirements

- Maximum of 15 credits at the 200 level
- □ JAPN 201 - Second-Year Japanese
- □ JAPN 202 - Second-Year Japanese
- □ JAPN 203 - Second-Year Japanese
- □ JAPN 301 - Third-Year Japanese
- □ JAPN 302 - Third-Year Japanese
- □ JAPN 303 - Third-Year Japanese
- □ JAPN 350 - Japanese Culture, History and Society
- □ JAPN 401 - Advanced Japanese (must be taken on campus)
- □ JAPN 402 - Topics in Japanese Literature (must be taken on campus)
- □ JAPN 403 - Topics in Japanese Thought (must be taken on campus)

**NOTE:** While not required, study abroad in Japan is strongly encouraged.



## MODERN AND CLASSICAL LANGUAGES

### Electives

- HIST 484 - Women in Japanese History
- HIST 485 - Japanese Military History: Samurai Fact and Fiction
- HIST 486 - Religion in Japanese History
- ANTH 460 - Culture and Society of Japan
- EAST 368 - Japanese Literature in Translation
- HIST 374 - Premodern Japanese History
- HIST 375 - Modern Japanese History
- JAPN 314 - Japanese Phonetics
- JAPN 330 - Japanese Culture Through Film

## Spanish with a Teaching Endorsement, BA

Department of Modern and Classical Languages, College of Humanities and Social Sciences

### Introduction/What is the Study of Spanish?

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language structure through a full range of language skills courses, as well as a significant number of courses in linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable high school students to begin the acquisition of foreign languages.

### Why Consider a Teaching Endorsement in Spanish Major?

The department provides students with the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

The BA in or Spanish leads to a BA degree without teacher certification. In order to receive a recommendation for state of Washington certification students must complete the "teacher certification" program which is offered by the Department of Secondary Education.

See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

Regulations for teaching endorsement are subject to change. For teaching endorsement program, contact the foreign language endorsement advisor.

### Contact Information

#### Modern and Classical Languages

#### Department Office

Miller Hall 223  
360-650-3918

#### Spanish and World Languages

#### - Education Advisor

Shaw Gynan  
Miller Hall 215A  
360-650-4853  
Shaw.Gynan@wwu.edu

**Secondary Education Website**

<http://www.wce.wvu.edu/Depts/SEC>

**Secondary Education Program Manager**

Janna Cecka  
Miller Hall 401C  
360-650-3327  
Janna.Cecka@wvu.edu

**Secondary Education Program Coordinator**

Debbie Gramm  
Miller Hall 401A  
360-650-3327  
Debbie.Gramm@wvu.edu

**Sample Careers**

Interpreter | Foreign Correspondent | Foreign Service Officer | FBI Agent | Educator | Linguist | Travel Writer  
| All careers involving communication

**Major/Career Resources**

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Students seeking admission to the major must meet the following requirements:

- Completion of SPAN 203 with a "B" or better (transfer students must meet the same requirement for any course accepted as an equivalent to SPAN 203)
- Complete at least one Spanish course at Western
- Submit application (available from Spanish advisor or department office)

Students meeting qualifications but not admitted because of space limitations may reapply.

**Grade Requirements**

Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

A GPA of 3.00 is required in the language major and a GPA of 3.00 or above is required in endorsement courses

Requirements

**Complete both A and B:**

A. Language Component (55 credits)

Spanish, BA

B. Endorsement Requirements (10 credits)

- LANG 410 - World Language Instruction: Theory and Method I
- LANG 420 - World Language Instruction: Theory and Method II
- SPAN 425 - Teaching-Learning Processes in Elementary Spanish
  - Be recommended by a faculty member in the major field
  - Pass the departmental foreign language oral proficiency exam given during spring quarter
  - Complete the professional preparation program in secondary education. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

Additional Requirements

**Secondary Education Professional Program Requirements (68 credits)**

- SEC 301 - Educational Psychology I: Development and Individual Differences
- SEC 302 - Educational Psychology II: Motivation, Learning and Assessment
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education

## MODERN AND CLASSICAL LANGUAGES

- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching Laboratory
- SEC 435 - Middle Level Practicum
- SEC 436 - Secondary School Practicum
- SEC 444 - Supporting Teaching and Learning with Technology
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

### Spanish, BA

Department of Modern and Classical Languages, College of Humanities and Social Sciences

#### 55 credits

#### Introduction/What is the Study of Spanish?

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language structure through a full range of language skills courses, as well as a significant number of courses in linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable high school students to begin the acquisition of foreign languages.

#### Why Consider a Spanish Major?

The department provides students with the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

#### Contact Information

**Modern and Classical Languages**  
**Department Office**  
Miller Hall 223  
360-650-3918

**Spanish Advisor**  
Shaw Gynan  
Miller Hall 215A  
360-650-4853  
Shaw.Gynan@wwu.edu

#### Sample Careers

Interpreter | Foreign Correspondent | Foreign Service Officer | FBI Agent | Educator | Linguist | Travel Writer  
| All careers involving communication

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students seeking admission to the major must meet the following requirements:

- Completion of SPAN 203 with a "B" or better (transfer students must meet the same requirement for any course accepted as an equivalent to SPAN 203).
- Complete at least one Spanish course at Western.
- Submit application (available from Spanish advisor or department office).

Students meeting qualifications but not admitted because of space limitations may reapply.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in major is required.

### Requirements

- Maximum of 15 credits at the 200 level
- □ SPAN 301 - Grammar Review and Composition
- □ SPAN 302 - Grammar Review and Composition
- □ SPAN 314 - Phonetics
- □ SPAN 340 - Introduction to Hispanic Literature
- □ SPAN 401 - Advanced Grammar (must be taken on campus)
- □ SPAN 402 - Advanced Composition (must be taken on campus)
- One course from:
  - SPAN 331 - Culture of Spain
  - SPAN 332 - Culture of Latin America
- One course from:
  - SPAN 351 - Survey of the Literature of Spain
  - SPAN 352 - Survey of the Literature of Latin America
- One topic course from:
  - SPAN 450 - Studies in Hispanic Literature

**NOTE:** SPAN 340, SPAN 351, SPAN 352 and SPAN 450 are to be taken in that order. The same applies for SPAN 401 and SPAN 402. SPAN 425 can be applied to the major once.

## Bachelor of Arts in Education

### French - Elementary, BAE

Department of Modern and Classical Languages, College of Humanities and Social Sciences

### 45 credits

#### Introduction/What is the Study of French-Elementary?

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language structure through a full range of language skills courses, as well as a significant number of courses in linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

## MODERN AND CLASSICAL LANGUAGES

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable elementary school students to begin the acquisition of foreign languages.

### Why Consider a French-Elementary Major?

The department provides students the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in elementary education. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### Contact Information

##### Modern and Classical Languages

##### Department Office

Miller Hall 223  
360-650-3918

##### Teacher Education Admissions

Miller Hall 150  
360-650-43313  
<http://www.wce.wvu.edu/admiss>

##### French Advisor

Dr. Cecile Hanania  
Miller Hall 126  
360-650-4858  
[Cecile.Hanania@wvu.edu](mailto:Cecile.Hanania@wvu.edu)

##### Elementary Education

##### Professional

##### Program Information

Miller Hall 300  
360-650-3336  
<http://www.wce.wvu.edu/Depts/ELED>

##### Elementary Education Professional Program Advisor

**and Program Manager**  
Ellen Kreider  
Miller Hall 301D  
360-650-7948  
[Ellen.Kreider@wvu.edu](mailto:Ellen.Kreider@wvu.edu)

#### Sample Careers

Elementary Teacher

#### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Make an appointment with the French advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Undergraduate Major" form (available at the Department Office)
- An unofficial WWU transcript
- Documentation for courses taken at other colleges or universities
- Documentation for any study-abroad credits earned

### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

A GPA of 2.75 is required in major language.

Requirements

- ❑ Minimum of 21 credits must be taken in language skills courses (e.g., 201, 202, 301, 302, 401) through the fourth year
- ❑ Remaining credits are to be earned in selected courses under advisement at the 300- or 400-level in the language; up to 24 of these credits may be earned through foreign study course work in language, culture or literature (if taken in the target language)

Additional Requirements

Elementary Education Professional Program Requirements (103-104 credits)

Department of Elementary Education, Woodring College of Education

**Introduction**

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

**Admission and Declaration Process**

Admission Requirements

**Grade Requirements**

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

Professional Studies Core (25 credits)

- ❑ ELED 301 - Educational Psychology I: Development and Individual Differences
- ❑ ELED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ❑ ELED 310 - Education, Culture, and Equity
- ❑ ELED 370 - Introduction to Teaching
- ❑ I T 344 - Basic Instructional Technology Skills
- ❑ I T 442 - Classroom Use of Instructional Technology (Elementary)
- ❑ SPED 364 - Teaching Each Student

Elementary Program — Methods, Curriculum Content, and Field Experiences (78-79 credits)

- ❑ One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- ❑ One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
  - ❑ ELED 425 - Social Studies for the Elementary School
  - ❑ ELED 470 - Developing Teaching
  - ❑ ELED 471 - Documenting Teaching
  - ❑ ELED 480 - Literacy: Beginning Communicators

## MODERN AND CLASSICAL LANGUAGES

- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

### **German - Elementary, BAE**

Department of Modern and Classical Languages, College of Humanities and Social Sciences

#### **45 credits**

#### **Introduction/What is the Study of German-Elementary?**

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language structure through a full range of language skills courses, as well as a significant number of courses in linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable elementary school students to begin the acquisition of foreign languages.

#### **Why Consider a German-Elementary Major?**

The department provides students the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in the department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in elementary education. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### Contact Information

##### **Modern and Classical Languages Program Information**

Miller Hall 223  
360-650-3918

##### **German Advisor**

Petra S. Fiero  
Miller Hall 217A  
360-650-4860  
Petra.Fiero@wwu.edu

**Teacher Education Admissions**

Miller Hall 150  
360-650-43313  
<http://www.wce.wvu.edu/admiss>

**Elementary Education Professional Program Information**

Miller Hall 300  
360-650-3336  
<http://www.wce.wvu.edu/Depts/ELED>

**Elementary Education Professional Program Advisor and Program Manager**

Ellen Kreider  
Miller Hall 301D  
360-650-7948  
[Ellen.Kreider@wvu.edu](mailto:Ellen.Kreider@wvu.edu)

**Sample Careers**

Elementary Teacher

**Major/Career Resources**

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Make an appointment with the French advisor.

When meeting with the advisor, you should bring:

- An "Official Declaration of Undergraduate Major" form (available at the Department Office)
- An unofficial WWU transcript
- Documentation for courses taken at other colleges or universities
- Documentation for any study-abroad credits earned

**Grade Requirements**

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

A GPA of 2.75 is required in major language.

**Requirements**

- Minimum of 21 credits must be taken in language skills courses (e.g., GERM 201, GERM 202, GERM 203, GERM 301, GERM 302, GERM 401) through the fourth year.
- Remaining credits are to be earned in selected courses under advisement at the 300- or 400-level in the language; up to 24 of these credits may be earned through foreign study course work in language, culture or literature (if taken in the target language).

**Additional Requirements**

**Elementary Education Professional Program Requirements (103-104 credits)**

Department of Elementary Education, Woodring College of Education

**Introduction**

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

**Admission and Declaration Process**

Admission Requirements

**Grade Requirements**

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.



## MODERN AND CLASSICAL LANGUAGES

### Professional Studies Core (25 credits)

- ELED 301 - Educational Psychology I: Development and Individual Differences
- ELED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Basic Instructional Technology Skills
- I T 442 - Classroom Use of Instructional Technology (Elementary)
- SPED 364 - Teaching Each Student

### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-79 credits)

#### One course from:

- ART 398 - Integrated Arts for Elementary Educators
- DNC 398 - Integrated Arts for Elementary Educators
- MUS 398 - Integrated Arts for Elementary Educators
- THTR 398 - Integrated Arts for Elementary Educators

#### One course from:

- ART 380 - Art Educating the Child
- DNC 433 - Creative Movement for Educators With Lab
- MUS 361 - Music for Elementary Teachers
- THTR 350 - Theatre for Youth
- THTR 351 - Creative Pedagogy
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

## Spanish — Elementary, BAE

Department of Modern and Classical Languages, College of Humanities and Social Sciences

### 45 credits

#### Introduction/What is the Study of Spanish-Elementary?

In keeping with the aim of providing the skills needed to learn about a culture in depth, the Department of Modern and Classical Languages trains in two areas: language structure and literary analysis. Language structure is taught both holistically and analytically. Holistic language learning is facilitated by modern

methods and multimedia technology, as well as study abroad opportunities. The department supports the analytical instruction of language structure through a full range of language skills courses, as well as a significant number of courses in linguistics. Literary analysis is essential to a student's understanding of the highest achievements in aesthetic expression of a culture's values.

The department provides instruction in history and culture, as well as literary theory, with an end to enabling the student to gain access to the intellectual life in the culture. The department imparts skills to future foreign language teachers so that they may similarly enable high school students to begin the acquisition of foreign languages.

**Why Consider a Spanish-Elementary Major?**

The department provides students with the skills to learn firsthand about major world societies. The department believes that the best way to understand a culture directly is through its language. The modern languages offered in this department are spoken natively by nearly two billion people. The multifaceted programs of the department provide an opening to the world through language, literature, culture and civilization. It is a meeting place for true diversity.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in elementary education. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

<b>Contact Information</b>		
<b>Modern and Classical Languages Department Office</b>	<b>Advisor</b>	
Miller Hall 223	Shaw Gynan	
360-650-3918	Miller Hall 215A	
	360-650-4853	
	Shaw.Gynan@wwu.edu	
<b>Elementary Education Professional Program Information</b>	<b>Teacher Education Admissions</b>	<b>Elementary Education Professional Program Advisor and Program Manager</b>
Miller Hall 300	Miller Hall 150	Ellen Kreider
360-650-3336	360-650-3313	Miller Hall 301D
<a href="http://www.wce.wwu.edu/Depts/ELED/">http://www.wce.wwu.edu/Depts/ELED/</a>	<a href="http://www.wce.wwu.edu/admiss">http://www.wce.wwu.edu/admiss</a>	360-650-7948
		<a href="mailto:Ellen.Kreider@wwu.edu">Ellen.Kreider@wwu.edu</a>

**Sample Careers**

Elementary Teacher

**Major/Career Resources**

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Students seeking admission to the major must meet the following conditions:

- Complete SPAN 203 with a "B" or better (transfer students must meet the same requirement for any course accepted as an equivalent to SPAN 203)
- Submit application (available from Spanish Advisor or Department Office)
- Complete at least one Spanish course at Western

Students meeting qualifications but not admitted because of space limitations may reapply.

# MODERN AND CLASSICAL LANGUAGES

## Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

A GPA of 2.75 is required in major language.

### Requirements

- Minimum of 21 credits must be taken in language skills courses (e.g., 201, 202, 301, 302, 401) through the fourth year
- Remaining credits are to be earned in selected courses under advisement at the 300- or 400-level in the language; up to 24 of these credits may be earned through foreign study course work in language, culture or literature (if taken in the target language)

### Additional Requirements

## Elementary Education Professional Program Requirements (103-104 credits)

Department of Elementary Education, Woodring College of Education

## Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

## Admission and Declaration Process

### Admission Requirements

## Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

### Professional Studies Core (25 credits)

- ELED 301 - Educational Psychology I: Development and Individual Differences
- ELED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Basic Instructional Technology Skills
- I T 442 - Classroom Use of Instructional Technology (Elementary)
- SPED 364 - Teaching Each Student

### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-79 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers

- THTR 350 - Theatre for Youth
- THTR 351 - Creative Pedagogy
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

## Additional Endorsement

### Designated World Languages, Additional Endorsement

#### 44-51 Credits

#### Introduction/What is the Study of Designated World Languages?

This additional endorsement program prepares students to teach designated world language (Chinese, French, German, Japanese, or Spanish) at all levels and must be accompanied by a professional education program and a qualifying endorsement in another content area. See the Elementary Education, Secondary Education, and Special Education and Education Leadership sections of this catalog for program admission, completion, and teacher certificate requirements. A passing score on the World Languages WEST-E test, and proficiency in the designated world language assessed by ACTFL oral and written tests at the Advanced-Low level, are required by the state.

#### Why Consider an Additional Endorsement in Designated World Languages?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

# MODERN AND CLASSICAL LANGUAGES

## Grade Requirements

Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better. The Department of Modern and Classical Languages requires a GPA of 3.0 in the language coursework.

### Requirements

#### Chinese P-12 (51 Credits)

- CHIN 201 - Second-Year Chinese
- CHIN 202 - Second-Year Chinese
- CHIN 203 - Second-Year Chinese
- CHIN 301 - Third-Year Chinese
- CHIN 302 - Third-Year Chinese
- CHIN 303 - Third-Year Chinese
- CHIN 304 - Chinese Grammar and Composition
- CHIN 390 - Introduction to Chinese Language and Linguistics
- LANG 410 - World Language Instruction: Theory and Method I
- LANG 420 - World Language Instruction: Theory and Method II
- LANG 430 - Asian Language Pedagogy and Practice

#### German P-12 (44 Credits)

- GERM 201 - Intermediate German: Language, Communication & Culture
- GERM 202 - Intermediate German: Language, Communication & Culture
- GERM 203 - Intermediate German: Language, Communication & Culture
- GERM 301 - High Intermediate German: Contexts & Culture
- GERM 302 - Advanced German: Contexts & Cultures I
- GERM 314 - Phonetics
- GERM 340 - Introduction to German Literature
- GERM 401 - Advanced German: Contexts & Cultures II
- GERM 402 - Advanced German: Contexts & Cultures III
- LANG 410 - World Language Instruction: Theory and Method I
- LANG 420 - World Language Instruction: Theory and Method II

#### French P-12 (45 Credits)

- FREN 201 - Intermediate French
- FREN 202 - Intermediate French
- FREN 203 - Intermediate French
- FREN 301 - Grammar Review
- FREN 302 - Written Exposition
- FREN 314 - Phonetics
- One of the following:
  - FREN 340 - Introduction to French Literature I
  - FREN 341 - Introduction to French Literature II
  - FREN 342 - Introduction to French Literature III
- FREN 401 - Elements De Stylistique
- One additional 400-level French course
- LANG 410 - World Language Instruction: Theory and Method I
- LANG 420 - World Language Instruction: Theory and Method II

Japanese P-12 (44 credits)

- JAPN 201 - Second-Year Japanese
- JAPN 202 - Second-Year Japanese
- JAPN 203 - Second-Year Japanese
- JAPN 301 - Third-Year Japanese
- JAPN 302 - Third-Year Japanese
- JAPN 303 - Third-Year Japanese
- JAPN 401 - Advanced Japanese
- One additional upper division course under advisement
- LANG 410 - World Language Instruction: Theory and Method I
- LANG 420 - World Language Instruction: Theory and Method II
- LANG 430 - Asian Language Pedagogy and Practice

Spanish P-12 (51 Credits)

- SPAN 201 - Intermediate Spanish
- SPAN 202 - Intermediate Spanish
- SPAN 203 - Intermediate Spanish
- SPAN 301 - Grammar Review and Composition
- SPAN 302 - Grammar Review and Composition
- SPAN 314 - Phonetics
- One of the following:
  - SPAN 331 - Culture of Spain
  - SPAN 332 - Culture of Latin America
- SPAN 340 - Introduction to Hispanic Literature
- SPAN 401 - Advanced Grammar
- SPAN 402 - Advanced Composition
- LANG 410 - World Language Instruction: Theory and Method I
- LANG 420 - World Language Instruction: Theory and Method II

## Minor

### Chinese Minor

Department of Modern and Classical Languages, College of Humanities and Social Sciences

**24 credits**

#### Introduction/What is the Study of Chinese?

#### Why Consider a Chinese Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

# MODERN AND CLASSICAL LANGUAGES

## How to Declare (Admission and Declaration Process):

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in minor language is required.

### Requirements

- Maximum 15 credits at the 200 level
- A minimum of three courses at the 300 or 400-level in minor language, to include:
  - CHIN 301 - Third-Year Chinese
  - CHIN 302 - Third-Year Chinese
  - CHIN 303 - Third-Year Chinese (must be taken on campus)
- OR
- CHIN 304 - Chinese Grammar and Composition (must be taken on campus)

**NOTE:** CHIN 425 is not applicable to the minor.

## Classical Studies Minor

Department of Modern and Classical Languages, College of Humanities and Social Sciences

### 27 credits

### Introduction/What is the Study of Classical Studies?

### Why Consider a Classical Studies Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in minor courses is required.

### Requirements

- CLST 260 - Masterworks of Ancient Greek Literature
- CLST 270 - Literature of Rome and Her Empire
- CLST 350 - Greek Mythology
- Select 15 credits from:
  - CLST 450 - Topics in Classical Studies

- HIST 312 - History of Ancient Greece
- HIST 313 - History of Ancient Rome
- HIST 410 - The First Cities: Urbanization in the Ancient World
- PHIL 364 - History of Philosophy: Ancient Philosophy
- A/HI 220 - Visual Culture in Ancient Greece and Rome
- A/HI 221 - Visual Culture in Medieval Europe

A maximum of one course from the following may be used toward the 15 credits:

- LAT 101 - Elementary Latin
- LAT 102 - Elementary Latin
- LAT 103 - Elementary Latin
- GREK 101 - Elementary Greek
- GREK 102 - Elementary Greek
- GREK 103 - Elementary Greek

## French Minor

Department of Modern and Classical Languages, College of Humanities and Social Sciences

### 24 credits

### Introduction/What is the Study of French?

### Why Consider a French Minor?

#### Contact Information

#### Modern and Classical Languages

#### Department Office

Miller Hall 223  
360-650-3918

#### Sample Careers

#### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in minor language is required.

#### Requirements

- Maximum of 15 credits at the 200 level
- A minimum of three courses at 300 or 400 level, to include:
  - FREN 301 - Grammar Review
  - FREN 302 - Written Exposition

**NOTE:** FREN 425 is not applicable to the minor



# MODERN AND CLASSICAL LANGUAGES

## German Minor

Department of Modern and Classical Languages, College of Humanities and Social Sciences

**24 credits**

### Introduction/What is the Study of German?

### Why Consider a German Minor?

Contact Information

#### Modern and Classical Languages

##### Department Office

Miller Hall 223

360-650-3918

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in minor language is required.

#### Requirements

- Maximum 15 credits at the 200 level
- A minimum of three courses at 300 or 400 level in minor language, to include:
  - GERM 301 - High Intermediate German: Contexts & Culture
  - GERM 302 - Advanced German: Contexts & Cultures I

**NOTE:** GERM 425 is not applicable to the minor

## Greek Minor

Department of Modern and Classical Languages, College of Humanities and Social Sciences

**12 credits**

### Introduction/What is the Study of Greek?

### Why Consider a Greek Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in minor courses is required.

Requirements

- 12 credits at the 200-300 level

**Japanese Minor**

Department of Modern and Classical Languages, College of Humanities and Social Sciences

**24 credits**

**Introduction/What is the Study of Japanese?**

**Why Consider a Japanese Minor?**

Contact Information

**Modern and Classical Languages**

**Department Office**

Miller Hall 223

360-650-3918

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in Japanese courses is required.

Requirements

- Maximum 12 credits at 200 level
- JAPN 301 - Third-Year Japanese
- JAPN 302 - Third-Year Japanese
- One course from:
  - JAPN 303 - Third-Year Japanese (must be taken on campus)
  - JAPN 401 - Advanced Japanese (must be taken on campus)

**NOTE:** JAPN 280 and JAPN 425 are not applicable to the minor

**Latin American Studies Minor (see History Department)**

Latin American Studies Minor (see History Department)

## MODERN AND CLASSICAL LANGUAGES

### Latin Minor

Department of Modern and Classical Languages, College of Humanities and Social Sciences

**12 credits**

#### Introduction/What is the Study of Latin?

#### Why Consider a Latin Minor?

Contact Information

#### Modern and Classical Languages

#### Department Office

Miller Hall 223

360-650-3918

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in minor courses is required.

Requirements

- 12 credits at the 200-300 level

### Russian and Eurasian Studies Minor

Department of Modern and Classical Languages, College of Humanities and Social Sciences

**27-28 Credits**

#### Introduction/What is the Study of Russian and Eurasian Studies?

The Russian and Eurasian studies minor provides students with basic proficiency in the Russian language, combined with a broad understanding of the history and cultures of the wider Eurasian area. The minor provides a well-rounded education in Russia's current and past experience as the key country, language, and culture across a broad area of Europe and Asia.

#### Why Consider a Russian and Eurasian Studies Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Must have taken Russian 201 or equivalent to declare.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

Requirements

- RUSS 201 - Intermediate Russian I
- RUSS 202 - Intermediate Russian II
- RUSS 203 - Intermediate Russian III
- EUS 201 - Introduction to Russian Civilization
- EUS 210 - Nomads of Eurasia
- At least two credits from RUSS 214 or EUS 450

**Spanish Minor**

Department of Modern and Classical Languages, College of Humanities and Social Sciences

**24 credits**

**Introduction/What is the Study of Spanish?**

**Why Consider a Spanish Minor?**

Contact Information

**Modern and Classical Languages**

**Department Office**

Miller Hall 223

360-650-3918

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. A GPA of 2.50 or above in minor language is required.

Requirements

- Maximum 15 credits at 200 level
  - A minimum of three courses at 300 or 400 level in minor language, to include:
    - SPAN 301 - Grammar Review and Composition
    - SPAN 302 - Grammar Review and Composition
- NOTE:** SPAN 425 is not applicable to the minor

## Arabic Courses

### **ARAB 101 - Elementary Arabic**

101, 102, 103 Elementary Arabic (5 each). To be taken in sequence. Fundamentals of speaking, reading, writing and understanding standard Arabic.

Credits: 5

### **ARAB 102 - Elementary Arabic**

101, 102, 103 Elementary Arabic (5 each). To be taken in sequence. Fundamentals of speaking, reading, writing and understanding standard Arabic.

**Prerequisites & Notes:** Arabic 101

Credits: 5

### **ARAB 103 - Elementary Arabic**

101, 102, 103 Elementary Arabic (5 each). To be taken in sequence. Fundamentals of speaking, reading, writing and understanding standard Arabic.

**Prerequisites & Notes:** Arabic 102

Credits: 5

GUR Attributes: BCOM

### **ARAB 201 - Intermediate Arabic**

201, 202, 203 Intermediate Arabic (5 ea). To be taken in sequence. Continuation of skill development begun in elementary Arabic (Modern Standard Arabic), with additional work and focus on speaking and vocabulary acquisition.

**Prerequisites & Notes:** ARAB 103

Credits: 5

GUR Attributes: BCOM

### **ARAB 202 - Intermediate Arabic**

201, 202, 203 Intermediate Arabic (5 ea). To be taken in sequence. Continuation of skill development begun in elementary Arabic (Modern Standard Arabic), with additional work and focus on speaking and vocabulary acquisition.

**Prerequisites & Notes:** ARAB 201

Credits: 5

GUR Attributes: ACGM

### **ARAB 203 - Intermediate Arabic**

201, 202, 203 Intermediate Arabic (5 ea). To be taken in sequence. Continuation of skill development begun in elementary Arabic (Modern Standard Arabic), with additional work and focus on speaking and vocabulary acquisition.

**Prerequisites & Notes:** ARAB 202

Credits: 5

GUR Attributes: ACGM

## Chinese Courses

### **CHIN 101 - First-Year Chinese**

To be taken in sequence. Fundamentals of the modern standard language (Mandarin): pronunciation, grammar, aural comprehension, reading and speaking.

Credits: 5

### **CHIN 102 - First-Year Chinese**

To be taken in sequence. Fundamentals of the modern standard language (Mandarin): pronunciation, grammar, aural comprehension, reading and speaking.

**Prerequisites & Notes:** CHIN 101 or equivalent

Credits: 5

### **CHIN 103 - First-Year Chinese**

To be taken in sequence. Fundamentals of the modern standard language (Mandarin): pronunciation, grammar, aural comprehension, reading and speaking.

**Prerequisites & Notes:** CHIN 102 or equivalent

Credits: 5

GUR Attributes: BCOM

### **CHIN 201 - Second-Year Chinese**

To be taken in sequence. Review of the fundamentals of the modern standard language (Mandarin); emphasis on acquisition of oral and written vocabulary; intensive reading and discussion in Chinese of graded materials in modern Chinese (Mandarin).

**Prerequisites & Notes:** CHIN 103 or equivalent

Credits: 5  
GUR Attributes: BCOM

**CHIN 202 - Second-Year Chinese**

To be taken in sequence. Review of the fundamentals of the modern standard language (Mandarin); emphasis on acquisition of oral and written vocabulary; intensive reading and discussion in Chinese of graded materials in modern Chinese (Mandarin).

**Prerequisites & Notes:** CHIN 201 or equivalent  
Credits: 5  
GUR Attributes: ACGM

**CHIN 203 - Second-Year Chinese**

To be taken in sequence. Review of the fundamentals of the modern standard language (Mandarin); emphasis on acquisition of oral and written vocabulary; intensive reading and discussion in Chinese of graded materials in modern Chinese (Mandarin).

**Prerequisites & Notes:** CHIN 202 or equivalent  
Credits: 5  
GUR Attributes: ACGM

**CHIN 280 - Traditional Chinese Characters and Calligraphy**

An introduction to the principles used in the formation and history of Chinese characters. The components of the characters are analyzed and compared with the new, simplified forms. Prepared texts provide practice in reading the characters. Calligraphy sessions provide opportunity to write both the traditional and simplified forms.

**Prerequisites & Notes:** CHIN 101  
Credits: 3

**CHIN 301 - Third-Year Chinese**

To be taken in sequence. Intensive reading, written vocabulary acquisition (reaching the 1,400 character level by the end of the sequence) and oral comprehension of materials in modern standard Chinese (Mandarin).

**Prerequisites & Notes:** CHIN 203  
Credits: 4  
GUR Attributes: ACGM

**CHIN 302 - Third-Year Chinese**

To be taken in sequence. Intensive reading, written vocabulary acquisition (reaching the 1,400 character level by the end of the sequence) and oral comprehension of materials in modern standard Chinese (Mandarin).

**Prerequisites & Notes:** CHIN 301  
Credits: 4  
GUR Attributes: ACGM

**CHIN 303 - Third-Year Chinese**

To be taken in sequence. Intensive reading, written vocabulary acquisition (reaching the 1,400 character level by the end of the sequence) and oral comprehension of materials in modern standard Chinese (Mandarin).

**Prerequisites & Notes:** CHIN 302  
Credits: 4  
GUR Attributes: ACGM

**CHIN 304 - Chinese Grammar and Composition**

This course is designed to review and discuss all major grammatical elements in Chinese, including sentence building, analysis of grammatical elements and written composition. Students will be asked to read and compose an autobiography on various topics, such as childhood, family and friends, resume, hobbies, etc.

**Prerequisites & Notes:** CHIN 201  
Credits: 4  
GUR Attributes: ACGM

**CHIN 330 - Chinese Culture Through Film and Literature**

An introduction to cultural aspects of Chinese through a study of film as oral and visual texts. Film scripts and short stories, especially those from which films have been adapted, are used to enhance reading and discussion skills. Repeatable to a maximum of 9 cr.

**Prerequisites & Notes:** CHIN 203 or instructor permission  
Credits: 3

**CHIN 390 - Introduction to Chinese Language and Linguistics**

## MODERN AND CLASSICAL LANGUAGES

An introduction to the phonology, morphology, syntax, lexicon and writing system of the Chinese language. Explores the relationship between language and society.

Credits: 4

### **CHIN 425 - Teaching-Learning Processes in Elementary Chinese**

Students selected for tutoring must dedicate four hours per week to provide help to other students primarily those enrolled in 100-200 levels of Chinese courses. Permission may also be given to assist with other Chinese courses completed with outstanding achievement. Students may be requested to lead group sessions or work with students individually. Expertise in Chinese grammar or linguistics is desirable. S/U grading.

**Prerequisites & Notes:** CHIN 301 and instructor permission.

Credits: 2

Grade Mode: S/U

## Classical Studies Courses

### **CLST 117 - The Ancient Legacy**

An introduction to the contributions made by Greece and Rome to the European cultural tradition. Five thematic questions and the answers offered by the ancients are to be examined: God or Mortal; Citizen and State; the Great Individual; the life of philosophy and the life of political activity; the Burden of Immortality.

Credits: 5

GUR Attributes: HUM

### **CLST 260 - Masterworks of Ancient Greek Literature**

Survey of the major Greek texts - epic, dramatic and narrative - in translation with emphasis on those works which have shaped the classical tradition.

Credits: 4

GUR Attributes: HUM

### **CLST 270 - Literature of Rome and Her Empire**

Survey of the major literary monuments which serve to define the Roman character and the nature of the Roman Empire at its height.

Credits: 4

GUR Attributes: HUM

### **CLST 350 - Greek Mythology**

A study of Greek myths as a vital and evolving feature of Greek religious and intellectual life from Homer through Hesiod and Aeschylus to Euripides.

Credits: 4

GUR Attributes: HUM

### **CLST 401 - Sanskrit**

Fundamentals of the classical language: pronunciation; reading and writing of devanagari script; grammar.

Credits: 5

### **CLST 410 - The Proto-Indo-European Roots of the Classical Languages**

Introduction to principles of comparative philology and comparative mythology and poetics; survey of the phonology, morphology and syntax of Proto-Indo-European; the major IE branches with special emphasis given to Hellenic, Italic and Indo-Iranian.

**Prerequisites & Notes:** GREK 101 or LAT 101 or CLST 350 or CLST 401.

Credits: 4

### **CLST 450 - Topics in Classical Studies**

Varying topics, such as individual genres (e.g., epic, tragedy) or eras (fifth-century B.C. Athens, the Mediterranean World in the first century A.D.), will be treated from quarter to quarter. See the Timetable of Classes for offerings. Repeatable with different topics with no maximum.

**Prerequisites & Notes:** CLST 260 or CLST 270 or CLST 350 or LBRL 121 or ENG 281

Credits: 3-5

## Eurasian Studies Courses

### **EUS 201 - Introduction to Russian Civilization**

Survey of the history and culture of the Russian people from the earliest times to the present.

Credits: 5  
GUR Attributes: HUM

**EUS 210 - Nomads of Eurasia**

Surveys the origins, cultures and languages of the pastoral peoples of Eurasia, including the Mongols, Turks, Arabs, peoples of Iran and Afghanistan, as well as the native tribes of Siberia and the North Pacific Rim.

Credits: 5  
GUR Attributes: ACGM

**EUS 450 - Topics in Eurasian Studies**

Variable topics in Eurasian Studies, including folklore, linguistics, area studies. Repeatable for credit.

**Prerequisites & Notes:** EUS 201 or EUS 210 or instructor permission  
Credits: 3

**French Courses**

**FREN 101 - Elementary French**

To be taken in sequence. Fundamentals of speaking, reading, writing and understanding French.

Credits: 5

**FREN 102 - Elementary French**

To be taken in sequence. Fundamentals of speaking, reading, writing and understanding French.

**Prerequisites & Notes:** FREN 101  
Credits: 5

**FREN 103 - Elementary French**

To be taken in sequence. Fundamentals of speaking, reading, writing and understanding French.

**Prerequisites & Notes:** FREN 102  
Credits: 5  
GUR Attributes: BCOM

**FREN 104 - Review of Elementary French**

Designed for students with two years of high school French or equivalent to prepare them for the intermediate level through review and development of basic structure and vocabulary. Also for students needing a review of the first year.

**Prerequisites & Notes:** FREN 103 or two years HS French or equivalent  
Credits: 5  
GUR Attributes: BCOM

**FREN 201 - Intermediate French**

To be taken in sequence. Continuation of skill development begun in elementary French, with additional work in vocabulary acquisition and grammar.

**Prerequisites & Notes:** FREN 103 or FREN 104 or equivalent  
Credits: 5  
GUR Attributes: BCOM

**FREN 202 - Intermediate French**

To be taken in sequence. Continuation of skill development begun in elementary French, with additional work in vocabulary acquisition and grammar.

**Prerequisites & Notes:** FREN 201 or equivalent  
Credits: 5  
GUR Attributes: HUM

**FREN 203 - Intermediate French**

To be taken in sequence. Continuation of skill development begun in elementary French, with additional work in vocabulary acquisition and grammar.

**Prerequisites & Notes:** FREN 202 or equivalent  
Credits: 5  
GUR Attributes: HUM

**FREN 301 - Grammar Review**

Study of language and structure, vocabulary building, use of reference tools and writing styles.

**Prerequisites & Notes:** FREN 203 or equivalent  
Credits: 4  
GUR Attributes: HUM



## MODERN AND CLASSICAL LANGUAGES

### **FREN 302 - Written Exposition**

Practice in written expression of various kinds: resumes, analyses de texte, personal and formal correspondence as well as fiction.

**Prerequisites & Notes:** FREN 301

Credits: 3

GUR Attributes: HUM

### **FREN 314 - Phonetics**

Emphasizes improvement of pronunciation, contrasts English and French pronunciations and teaches phonetic transcription.

**Prerequisites & Notes:** FREN 203 or equivalent

Credits: 4

### **FREN 331 - La France: société et culture**

An introduction to the culture and civilization of France from historical and modern perspectives. Readings, discussions, films, oral and written assignments in French.

**Prerequisites & Notes:** FREN 301 or equivalent

Credits: 4

### **FREN 332 - Civilisation Et Culture Du Quebec**

An introduction to Quebec culture and civilization from historical and modern perspectives. Readings, discussions, films, oral and written assignments in French.

**Prerequisites & Notes:** FREN 301 or equivalent

Credits: 3

### **FREN 340 - Introduction to French Literature I**

An introduction to literary analysis, explication de texte involving poetry, prose and drama from the works of major authors of the Middle Ages and Renaissance.

**Prerequisites & Notes:** FREN 301 or equivalent

Credits: 4

### **FREN 341 - Introduction to French Literature II**

An introduction to literary analysis, explication de texte involving poetry, prose and drama from works of major authors of the 17th and 18th centuries.

**Prerequisites & Notes:** FREN 301; FREN 340 recommended

Credits: 4

### **FREN 342 - Introduction to French Literature III**

Introduction to literary analysis, explication de texte involving poetry, prose and drama from works of major authors of the 19th and 20th centuries.

**Prerequisites & Notes:** FREN 301 or equivalent

Credits: 4

### **FREN 385 - Culture and Conversation**

French and Francophone cultures as seen in various media. Discussion of aspects of these cultures. Required for the major. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** FREN 301 or equivalent

Credits: 4

### **FREN 401 - Elements De Stylistique**

Extensive practice in writing and in analyzing grammatical, stylistic and textual forms.

**Prerequisites & Notes:** FREN 302, FREN 314

Credits: 3

### **FREN 402 - French for Business**

Extensive practice writing and analyzing French as used for professional purposes including business case studies, correspondence and contracts. May replace FREN 401 with permission of instructor.

**Prerequisites & Notes:** FREN 301 plus 2

additional 300-level French courses

Credits: 4

### **FREN 410 - Ecriture Feminine Francophone**

Introduces students to a variety of texts written by women from the Francophone world (from Belgium to North Africa, French Antilles to Canada), and explores social, cultural and literary topics such as bi- and multiculturalism, native cultures vs. exogenous cultures, colonization, women's writing and condition, attitudes toward France and the French language, and exile and memory reconstruction.

**Prerequisites & Notes:** FREN 401 and one of FREN 340, FREN 341 or FREN 342.  
Credits: 4

### **FREN 420 - Histoire De La Langue Francaise**

A cultural and linguistic survey of the development of the French language from its origins to the present day, with samples selected from phonetic, grammatical, lexical, and syntactical aspects of the language at various stages in its evolution.

**Prerequisites & Notes:** FREN 401 and one of FREN 340, FREN 341, FREN 342.  
Credits: 4

### **FREN 425 - Teaching-Learning Processes in Elementary French**

Practicum in course preparation, classroom and language laboratory procedures, materials, evaluation and counseling. Repeatable. S/U grading.

**Prerequisites & Notes:** Written permission and two upper-division french courses.  
Credits: 2  
Grade Mode: S/U

### **FREN 440 - Etude Sociolinguistique**

Discusses the current developments of French in relation to community identity in times of globalization and late modernity. Examines the sociocultural forces that cause language variation and change, as well as people's attitudes vis-à-vis French in the Francophone world. Also introduces students to current sociolinguistic research methods.

**Prerequisites & Notes:** FREN 314, FREN 401 and one of FREN 340, FREN 341 or FREN 342  
Credits: 4

### **FREN 460 - French Cinema**

Part I: Historical overview of French cinema from 1895 to 1945. Part II: Historical overview of French cinema from 1945 to present.

**Prerequisites & Notes:** FREN 401 and one of FREN 340, FREN 341 or FREN 342.  
Credits: 4

## **German Courses**

### **GERM 101 - Elementary German: Language, Communication & Culture**

To be taken in sequence. Fundamentals of the language (speaking, listening, reading, writing), language use for communication, and introduction to the cultures of the German-speaking countries.

Credits: 5

### **GERM 102 - Elementary German: Language, Communication & Culture**

Fundamentals of the language (speaking, listening, reading, writing), language use for communication, and introduction to the cultures of the German-speaking countries.

**Prerequisites & Notes:** GERM 101 or equivalent  
Credits: 5

### **GERM 103 - Elementary German: Language, Communication & Culture**

Fundamentals of the language (speaking, listening, reading, writing), language use for communication, and introduction to the cultures of the German-speaking countries.

**Prerequisites & Notes:** GERM 102 or equivalent  
Credits: 5  
GUR Attributes: BCOM

### **GERM 104 - Review of Elementary German: Language, Communication & Culture**

Designed for students with two years of high school German or equivalent. Review of language fundamentals (speaking, listening, reading, writing), language use for communication, and introduction to the cultures of the German-speaking countries.

**Prerequisites & Notes:** Two years of high school German.  
Credits: 5  
GUR Attributes: BCOM

### **GERM 201 - Intermediate German: Language, Communication & Culture**

Deepening of language and communication skills developed in Elementary German and introduction

## MODERN AND CLASSICAL LANGUAGES

of further cultural content in the target language.

**Prerequisites & Notes:** GERM 103 or GERM 104 or equivalent

Credits: 4

GUR Attributes: BCOM

### **GERM 202 - Intermediate German: Language, Communication & Culture**

Deepening of language and communication skills developed in Elementary German and introduction of further cultural content in target language.

**Prerequisites & Notes:** GERM 201 or equivalent

Credits: 4

GUR Attributes: HUM

### **GERM 203 - Intermediate German: Language, Communication & Culture**

Deepening of language and communication skills developed in Elementary German and introduction of further cultural content in the target language.

**Prerequisites & Notes:** GERM 202 or equivalent

Credits: 4

GUR Attributes: HUM

### **GERM 301 - High Intermediate German: Contexts & Culture**

To be taken in sequence. Comprehensive review of grammatical structures, further development of language skills, and discussion of authentic materials in their socio-historical contexts.

**Prerequisites & Notes:** GERM 203 or equivalent

Credits: 4

GUR Attributes: HUM

### **GERM 302 - Advanced German: Contexts & Cultures I**

Continuing review of grammatical structures, further development of language skills, and study of more complex authentic materials in their socio-historical contexts.

**Prerequisites & Notes:** GERM 301 or equivalent

Credits: 4

GUR Attributes: HUM

### **GERM 306 - Third-Year Conversation**

Development of speaking skills in communicative situations. S/U grading.

**Prerequisites & Notes:** GERM 302 or equivalent.

Credits: 3

Grade Mode: S/U

### **GERM 314 - Phonetics**

A course designed to improve the student's pronunciation and intonation, to become familiar with phonetic transcription, and to become aware of problems involved in teaching German sounds.

**Prerequisites & Notes:** GERM 203

Credits: 4

### **GERM 331 - Civilization of Germany Through the Nineteenth Century**

Significant elements of German civilization presented through German texts.

**Prerequisites & Notes:** GERM 301

Credits: 4

### **GERM 332 - German Civilization Today**

Significant elements of German civilization. Repeatable to a maximum of 8 cr.

**Prerequisites & Notes:** GERM 301

Credits: 4

### **GERM 340 - Introduction to German Literature**

Selected works of major German authors, with emphasis on reading improvement and methods of textual interpretation.

**Prerequisites & Notes:** GERM 301

Credits: 4

### **GERM 341 - Nineteenth-Century German Literature**

Emphasis on either Romanticism or Realism. Repeatable with different topics.

**Prerequisites & Notes:** GERM 340

Credits: 4

### **GERM 343 - Eighteenth-Century German Literature**

Classical period of German literature as reflected in a major work of Lessing, Goethe and Schiller.

**Prerequisites & Notes:** GERM 340

Credits: 4

**GERM 401 - Advanced German: Contexts & Cultures II**

In-depth work with the language, including complex structures and stylistics, communication and cultural content.

**Prerequisites & Notes:** GERM 302 or equivalent  
Credits: 4

**GERM 402 - Advanced German: Contexts & Cultures III**

In-depth work with the language, with an emphasis on effective written communication; analysis of written texts for style, organization and purpose.

**Prerequisites & Notes:** GERM 302 or equivalent; recommended take GERM 401 first  
Credits: 4

**GERM 406 - Fluency Through Dramatization**

Bridges the gap between grammar-based language learning and content-based culture and/or literature courses. Students profit highly from a holistic approach involving role playing and the actualization of works of modern German drama. Emphasis is placed on pronunciation and intonation to facilitate increased fluency in German.

**Prerequisites & Notes:** GERM 302  
Credits: 4

**GERM 407 - German Culture Through Film**

This course explores the main features of German culture of the 20th Century through the medium of feature films rather than textbooks.

**Prerequisites & Notes:** GERM 302  
Credits: 4

**GERM 425 - Teaching-Learning Process in Elementary German**

Practicum in preparation, implementation and evaluation of instructional materials. Repeatable with no maximum. S/U grading.

**Prerequisites & Notes:** 6 credits upper-division German; written department permission.  
Credits: 2  
Grade Mode: S/U

**GERM 432 - Contemporary German Culture**

Analysis of important trends and current events in the German-speaking countries presented through various texts and media.

**Prerequisites & Notes:** GERM 340 and department advisement.  
Credits: 4

**GERM 440 - Topics in Germanic Linguistics**

Study of major areas in Germanic linguistics. Topics may include history of German, lexicology, phonology, morphology, syntax, dialectology. Repeatable with different topics with no maximum.

**Prerequisites & Notes:** GERM 401  
Credits: 4

**GERM 450 - Studies in German Literature**

Major authors and movements. Repeatable with different topics with no maximum.

**Prerequisites & Notes:** GERM 302, GERM 340  
Credits: 4

## Greek Courses

**GREK 101 - Elementary Greek**

Fundamentals of ancient Greek grammar designed primarily to provide an elementary reading knowledge; selected readings from various Greek writers.

Credits: 5

**GREK 102 - Elementary Greek**

Fundamentals of ancient Greek grammar designed primarily to provide an elementary reading knowledge; selected readings from various Greek writers.

**Prerequisites & Notes:** GREK 101  
Credits: 5

**GREK 103 - Elementary Greek**

Fundamentals of ancient Greek grammar designed primarily to provide an elementary reading knowledge; selected readings from various Greek writers.

## MODERN AND CLASSICAL LANGUAGES

### **Prerequisites & Notes:** GREK 102

Credits: 5

GUR Attributes: BCOM

### **GREK 201 - Intermediate Greek I**

To be taken in sequence. Review of fundamentals of ancient Greek grammar; reading from Plato's dialogues, the orators, the Iliad or Odyssey.

Introduction to Greek civilization.

### **Prerequisites & Notes:** GREK 103 or equivalent

Credits: 4

GUR Attributes: BCOM

### **GREK 202 - Intermediate Greek II**

Review of fundamentals of ancient Greek grammar; reading from Plato's dialogues, the orators, the Iliad or Odyssey. Introduction to Greek civilization.

### **Prerequisites & Notes:** GREK 201

Credits: 4

GUR Attributes: BCOM

### **GREK 350 - Advanced Readings**

Selected readings from Greek authors with an emphasis on honing grammatical skills and deepening one's understanding of Greek literary and cultural achievements. Repeatable with different topics.

### **Prerequisites & Notes:** GREK 202

Credits: 4

## Italian Courses

### **ITAL 101 - First-Year Italian**

Fundamentals of the language: pronunciation, grammar, aural comprehension, reading and speaking.

Credits: 5

## Japanese Courses

### **JAPN 101 - First-Year Japanese**

Fundamentals of the language: writing and reading hiragana, katakana and kanji; grammar, listening and speaking. Audio-assisted oral practice is an integral part of the course.

Credits: 5

### **JAPN 102 - First-Year Japanese**

Fundamentals of the language: writing and reading hiragana, katakana and kanji; grammar, listening and speaking. Audio-assisted oral practice is an integral part of the course.

### **Prerequisites & Notes:** JAPN 101

Credits: 5

### **JAPN 103 - First-Year Japanese**

Fundamentals of the language: writing and reading hiragana, katakana and kanji; grammar, listening and speaking. Audio-assisted oral practice is an integral part of the course.

### **Prerequisites & Notes:** JAPN 102

Credits: 5

GUR Attributes: BCOM

### **JAPN 104 - Review of Elementary Japanese**

Designed for students with two years high school Japanese or equivalent to prepare them for the intermediate level through review and development of basic structure and vocabulary. Also for students needing a review of the first year.

### **Prerequisites & Notes:** 2 years high school

Japanese; proficiency in hiragana, katakana, and 150 basic kanji

Credits: 5

GUR Attributes: BCOM

### **JAPN 201 - Second-Year Japanese**

Further fundamental grammar; review of first-year grammar; emphasis on writing, reading, listening and speaking skills. Audio-assisted oral practice is an integral part of the course.

### **Prerequisites & Notes:** JAPN 103

Credits: 4

GUR Attributes: BCOM

### **JAPN 202 - Second-Year Japanese**

Further fundamental grammar; review of first-year grammar; emphasis on writing, reading, listening and speaking skills. Audio-assisted oral practice is an integral part of the course.

### **Prerequisites & Notes:** JAPN 201

Credits: 4  
GUR Attributes: ACGM

**JAPN 203 - Second-Year Japanese**

Further fundamental grammar; review of first-year grammar; emphasis on writing, reading, listening and speaking skills. Audio-assisted oral practice is an integral part of the course.

**Prerequisites & Notes:** JAPN 202  
Credits: 4  
GUR Attributes: ACGM

**JAPN 280 - Kanji**

Acquisition of 50 kanji per week by way of associative method. Not applicable to the minor. Repeatable to 10 cr. S/U grading.

Credits: 2  
Grade Mode: S/U

**JAPN 301 - Third-Year Japanese**

Emphasis on well-rounded development of reading, writing, listening and speaking abilities; introduction of colloquial Japanese. Audio-assisted oral practice is an integral part of the course.

**Prerequisites & Notes:** JAPN 203  
Credits: 4  
GUR Attributes: ACGM

**JAPN 302 - Third-Year Japanese**

Emphasis on well-rounded development of reading, writing, listening and speaking abilities; introduction of colloquial Japanese. Audio-assisted oral practice is an integral part of the course.

**Prerequisites & Notes:** JAPN 301  
Credits: 4  
GUR Attributes: ACGM

**JAPN 303 - Third-Year Japanese**

Emphasis on well-rounded development of reading, writing, listening and speaking abilities; introduction of colloquial Japanese. Audio-assisted oral practice is an integral part of the course.

**Prerequisites & Notes:** JAPN 302  
Credits: 4  
GUR Attributes: ACGM

**JAPN 305 - Japanese Conversation**

Development of speaking skills in communicative situations.

**Prerequisites & Notes:** JAPN 201  
Credits: 3  
GUR Attributes: ACGM

**JAPN 314 - Japanese Phonetics**

Improvement of pronunciation, familiarization with phonetic transcription, and awareness of pronunciation problems.

**Prerequisites & Notes:** JAPN 301 or instructor permission  
Credits: 4

**JAPN 330 - Japanese Culture Through Film**

Discussion of Japanese culture seen through Japanese films. Topics of discussion involve Japanese psychology, mentality, customs, society and history. This course is conducted in Japanese and is repeatable up to 8 credits.

**Prerequisites & Notes:** JAPN 203.  
Credits: 4

**JAPN 350 - Japanese Culture, History and Society**

This is a survey course that covers a broad scope of Japanese history, culture and society. It will be taught in Japanese but will include some readings and instruction in English when deemed appropriate. It is a requirement for students pursuing a major in Japanese, but other interested students may enroll with the permission of the instructor if space permits. Specific course contents vary according to instructors.

**Prerequisites & Notes:** JAPN 301  
Credits: 4

**JAPN 401 - Advanced Japanese**

Emphasis on well-rounded development of reading, writing, listening and speaking abilities; targets the advanced materials.

**Prerequisites & Notes:** JAPN 303; required for majors.  
Credits: 4  
GUR Attributes: ACGM

## MODERN AND CLASSICAL LANGUAGES

### **JAPN 402 - Topics in Japanese Literature**

This is a seminar, conducted entirely in Japanese, and is required of students majoring in Japanese. Advanced reading materials in Japanese literature are introduced according to the class discussion schedule. The topic of the seminar varies according to the instructor. Repeatable to a maximum of 8 cr. under advisement.

**Prerequisites & Notes:** JAPN 401  
Credits: 4

### **JAPN 403 - Topics in Japanese Thought**

This is a seminar, conducted entirely in Japanese, and is required of students majoring in Japanese. Students are introduced to advanced materials in Japanese thought according to the class discussion schedule. The topic of the seminar varies according to the instructor. This is a writing intensive course.

**Prerequisites & Notes:** JAPN 401 or equivalent  
Credits: 4

### **JAPN 425 - Teaching-Learning Process in Elementary Japanese**

Practicum in course preparation, classroom materials, evaluation and counseling. Repeatable up to 4 credits. S/U grading.

**Prerequisites & Notes:** Written permission of department; JAPN 303 with B or better.  
Credits: 2  
Grade Mode: S/U

## Latin Courses

### **LAT 101 - Elementary Latin**

Fundamentals of grammar to provide a reading knowledge; selected readings from various Roman writers.

Credits: 5

### **LAT 102 - Elementary Latin**

Fundamentals of grammar to provide a reading knowledge; selected readings from various Roman writers.

**Prerequisites & Notes:** LAT 101  
Credits: 5

### **LAT 103 - Elementary Latin**

Fundamentals of grammar to provide a reading knowledge; selected readings from various Roman writers.

**Prerequisites & Notes:** LAT 102

Credits: 5  
GUR Attributes: BCOM

### **LAT 201 - Intermediate Latin**

To be taken in sequence as the first in an intermediate language sequence. Review of fundamentals; selected readings from various Roman writers; introduction to Roman civilization.

**Prerequisites & Notes:** LAT 103 or two years of high school Latin

Credits: 4  
GUR Attributes: BCOM

### **LAT 202 - Intermediate Latin**

To be taken in sequence as the second in an intermediate language sequence. Review of fundamentals; selected readings from various Roman writers; introduction to Roman civilization.

**Prerequisites & Notes:** LAT 201

Credits: 4  
GUR Attributes: HUM

### **LAT 203 - Intermediate Latin**

To be taken in sequence as the third in an intermediate language sequence. Review of fundamentals; selected readings from Roman writers with an emphasis on honing grammatical skills and understanding Roman literary and cultural achievements.

**Prerequisites & Notes:** Latin 202 or equivalent.

Credits: 4  
GUR Attributes: HUM

### **LAT 340 - Classical Roman Literature**

Readings in major Roman authors of the late Republican and early Imperial periods; introduction to classical literary analysis.

**Prerequisites & Notes:** Two years university-level Latin or equivalent.

Credits: 4

### **LAT 341 - Medieval Latin Literature**

Readings in the Christian Latin authors of the European Middle Ages. Introduction to Latin paleography, Medieval literary genres and prosody.

**Prerequisites & Notes:** Two years university-level Latin or equivalent.

Credits: 4

**LAT 342 - Humanist and Neo-Latin Literature**

Selections from authors of the European Renaissance, Reformation and modern periods; special attention given to the continuity of Classical literary traditions.

**Prerequisites & Notes:** Two years university-level Latin or equivalent.

Credits: 4

## Modern and Classical Languages Courses

**LANG 410 - World Language Instruction: Theory and Method I**

To be taken prior to field experience. Theory of world language instruction. Topics include contrastive analysis of English with target language; comparative first and second language acquisition; cognitive, attitudinal and political dimensions.

**Prerequisites & Notes:** 6 credits in one world language beyond second year; Grade of B or better in LING 201 or instructor permission.

Credits: 4

Grade Mode: S/U

**LANG 420 - World Language Instruction: Theory and Method II**

To be taken prior to field experience. Methods of world language instruction Demonstration of and practice with techniques appropriate to a variety of levels. Use, analysis and critique of technology, grammar and translation, audiolingual techniques, and direct methods. Professional development is discussed and analyzed.

**Prerequisites & Notes:** LANG 410.

Credits: 4

Grade Mode: S/U

**LANG 430 - Asian Language Pedagogy and Practice**

The course is designed to help students develop a better understanding of the current theories and practice of Chinese/Japanese language pedagogy and acquisition, to become acquainted with the National Standards (the five goal areas: communication, cultures, connections, comparisons, and communities and the three communicative modes: presentational, interpretive and interpersonal) and the teaching materials and methodologies in five major content areas of Chinese/Japanese language learning (i.e. the pronunciation system, characters, sentences/grammar, discourse, and culture). Students will be given opportunities to design/develop teaching materials (including both language and cultural components) for different levels of classes and to strategize and articulate their courses based on assessment guidelines. This course may also be used as Linguistics 402 for linguistics majors.

**Prerequisites & Notes:** CHIN 202 or JAPN 202

Credits: 4

GUR Attributes: ACGM

## Portuguese Courses

**PORT 105 - Intensive Portuguese for Speakers of Spanish**

An accelerated course designed for students with one year of college-level Spanish or equivalent to introduce them to the fundamentals of the language: pronunciation, grammar, aural comprehension, reading and speaking.

Credits: 5

**PORT 304 - Portuguese for Spanish Speakers**

An accelerated course designed for students with two years of college-level Spanish or equivalent to prepare them for the advanced level through development of skills in pronunciation, grammar, aural comprehension, reading and speaking.

**Prerequisites & Notes:** Two years of college-level Spanish or equivalent.

Credits: 5

GUR Attributes: HUM



## Russian Courses

### **RUSS 110 - Beginning Russian I**

Introduces the Russian alphabet, basic conversation and grammar. First course in the Russian language sequence.

Credits: 5

### **RUSS 120 - Elementary Russian 2**

The second half of the introductory Russian language sequence.

**Prerequisites & Notes:** RUSS 110

Credits: 5

GUR Attributes: BCOM

### **RUSS 201 - Intermediate Russian I**

Review of fundamentals: speaking, reading, writing and understanding.

**Prerequisites & Notes:** RUSS 120 or equivalent

Credits: 5

GUR Attributes: BCOM

### **RUSS 202 - Intermediate Russian II**

Review of fundamentals: speaking, reading, writing and understanding.

**Prerequisites & Notes:** RUSS 201

Credits: 5

GUR Attributes: HUM

### **RUSS 203 - Intermediate Russian III**

Review of fundamentals: speaking, reading, writing and understanding.

**Prerequisites & Notes:** RUSS 202

Credits: 5

GUR Attributes: HUM

### **RUSS 214 - Russian Phonetics**

Systematic practical and theoretical introduction to the Russian sound system.

**Prerequisites & Notes:** RUSS 101

Credits: 2

### **RUSS 301 - Third-Year Composition**

Written and oral expression, advanced grammar, and vocabulary building.

**Prerequisites & Notes:** RUSS 203 or equivalent

Credits: 3

GUR Attributes: HUM

### **RUSS 302 - Third-Year Composition**

Written and oral expression, advanced grammar and vocabulary building.

**Prerequisites & Notes:** RUSS 301 or equivalent

Credits: 3

GUR Attributes: HUM

## Spanish Courses

### **SPAN 101 - Elementary Spanish**

Fundamentals of the language: pronunciation, grammar, aural comprehension, reading and speaking.

Credits: 5

### **SPAN 102 - Elementary Spanish**

Fundamentals of the language: pronunciation, grammar, aural comprehension, reading and speaking.

**Prerequisites & Notes:** SPAN 101.

Credits: 5

### **SPAN 103 - Elementary Spanish**

Fundamentals of the language: pronunciation, grammar, aural comprehension, reading and speaking.

**Prerequisites & Notes:** SPAN 102.

Credits: 5

GUR Attributes: BCOM

### **SPAN 104 - Review of Elementary Spanish**

Designed for students with two years of high school Spanish or equivalent to prepare them for the intermediate level through review and development of basic structure and vocabulary. Also for students needing a review of the first year. Offered fall only.

**Prerequisites & Notes:** Two years of high school

Spanish recommended.  
Credits: 5  
GUR Attributes: BCOM

**SPAN 201 - Intermediate Spanish**

Review of fundamentals: understanding, speaking, reading and writing.

**Prerequisites & Notes:** SPAN 103 or SPAN 104 or equivalent.  
Credits: 5  
GUR Attributes: BCOM

**SPAN 202 - Intermediate Spanish**

Review of fundamentals: understanding, speaking, reading and writing.

**Prerequisites & Notes:** SPAN 201.  
Credits: 5  
GUR Attributes: HUM

**SPAN 203 - Intermediate Spanish**

Review of fundamentals: understanding, speaking, reading and writing.

**Prerequisites & Notes:** SPAN 202.  
Credits: 5  
GUR Attributes: HUM

**SPAN 301 - Grammar Review and Composition**

Language development, including written composition, vocabulary building, analysis of grammatical problems and discussion of selected Spanish texts.

**Prerequisites & Notes:** SPAN 203 or equivalent.  
Credits: 4  
GUR Attributes: HUM

**SPAN 302 - Grammar Review and Composition**

Language development, including written composition, vocabulary building, analysis of grammatical problems and discussion of selected Spanish texts.

**Prerequisites & Notes:** SPAN 301.  
Credits: 4  
GUR Attributes: HUM

**SPAN 305 - Third-Year Conversation**

Development of speaking skills in communicative situations. S/U grading.

**Prerequisites & Notes:** SPAN 203 or equivalent.  
Credits: 4  
Grade Mode: S/U

**SPAN 310 - Writing Through Film**

Writing Through Film is designed to give students the opportunity to improve, stimulate, and strengthen their writing skills. This class captures the history and culture in the selection of Hispanic films, providing students with the cultural context, vocabulary, and societal themes for written compositions.

**Prerequisites & Notes:** SPAN 203  
Credits: 3

**SPAN 314 - Phonetics**

Improvement of student pronunciation, familiarization with phonetic transcription and description of Spanish sounds.

**Prerequisites & Notes:** SPAN 301 or equivalent.  
Credits: 4

**SPAN 331 - Culture of Spain**

Survey of Spanish culture.

**Prerequisites & Notes:** SPAN 301 or equivalent.  
Credits: 4

**SPAN 332 - Culture of Latin America**

Survey of Latin American culture.

**Prerequisites & Notes:** SPAN 301 or equivalent.  
Credits: 4

**SPAN 340 - Introduction to Hispanic Literature**

Selected works of major Hispanic authors, with emphasis on reading improvement and methods of textual interpretation.

**Prerequisites & Notes:** SPAN 302 or equivalent.  
Credits: 4

**SPAN 351 - Survey of the Literature of Spain**

Historical survey of ten centuries of Spanish (Peninsular) literature.

## MODERN AND CLASSICAL LANGUAGES

**Prerequisites & Notes:** SPAN 340.

Credits: 4

### **SPAN 352 - Survey of the Literature of Latin America**

Historical survey of Latin American literature from the pre-Hispanic period until the present.

**Prerequisites & Notes:** SPAN 340.

Credits: 4

### **SPAN 401 - Advanced Grammar**

Analysis of special problems in Spanish syntax.

**Prerequisites & Notes:** SPAN 302 or equivalent.

Credits: 4

### **SPAN 402 - Advanced Composition**

Composition and stylistics; analysis of textual examples of style and organization.

**Prerequisites & Notes:** SPAN 401 or equivalent.

Credits: 4

### **SPAN 405 - Fourth-Year Conversation**

Advanced speaking practice in communicative situations. S/U grading.

**Prerequisites & Notes:** SPAN 302 or equivalent.

Credits: 3

Grade Mode: S/U

### **SPAN 425 - Teaching-Learning Processes in Elementary Spanish**

Practicum in teaching Spanish. Repeatable. S/U grading.

**Prerequisites & Notes:** Permission of department and two courses in upper- division Spanish.

Credits: 2

Grade Mode: S/U

### **SPAN 430 - Cultures Through Film**

Selected films and readings. Emphasis on film as a medium through which to achieve understanding of chosen topics in various cultures of the Spanish-speaking world. Repeatable with different topics with no maximum.

**Prerequisites & Notes:** SPAN 302

Credits: 4

### **SPAN 440 - Studies in Hispanic Linguistics**

Study of major areas in Hispanic linguistics. Topics may include history of the Spanish language, lexicology, phonology, morphology, syntax, dialectology or sociolinguistics. Repeatable with different topics with no maximum.

**Prerequisites & Notes:** SPAN 314; or SPAN 301 and LING 201; or equivalent.

Credits: 4

### **SPAN 450 - Studies in Hispanic Literature**

Major authors and movements. Repeatable with various topics with no maximum.

**Prerequisites & Notes:** SPAN 351 or SPAN 352.

Credits: 3-5

### **SPAN 450A - Studies in Hispanic Literature**

Major authors and movements. Repeatable with various topics with no maximum.

**Prerequisites & Notes:** SPAN 351 or SPAN 352.

Credits: 3-5

### **SPAN 450B - Studies in Hispanic Literature**

Major authors and movements. Repeatable with various topics with no maximum.

**Prerequisites & Notes:** SPAN 351 or SPAN 352.

Credits: 3-5

# Philosophy

## Introduction

Philosophy is among the oldest of intellectual disciplines. Many areas of study now distinct from philosophy — for example, the various sciences — may be regarded as offspring of philosophy which have come of age. Nevertheless, the central philosophical questions remain as vital as ever.

Historically, philosophy has been regarded by many as the most basic of intellectual disciplines; it is the firm conviction of the faculty of the Department of Philosophy that it is among the most relevant. Among the questions dealt with in one philosophy course or another are "What is knowledge?" "What is truth?" "Can we gain knowledge?" "Can we know the truth?" "Are there such things as right and wrong?" "Does God exist?" "What is the nature of the distinction between minds and bodies?" "Are persons machines?" and the like. The department believes that consideration of these and related questions is fundamental to being educated and, as such, should be of interest to all students; moreover, the department believes that many students are sufficiently able and mature intellectually to pursue answers to these questions at an advanced level with profit, and the faculty invite them to join in this pursuit.

The Department of Philosophy offers a wide range of courses in most of the traditional areas of philosophical concern: history of philosophy, ethics, philosophy of religion, metaphysics, to name only a few. A number of courses satisfy General University Requirements. Beyond this, the department offers a major and a minor program in philosophy. The major program is intentionally one of the smallest in the University to allow students maximum opportunity to explore other areas of interest.

Work in philosophy fits well into many pre-professional programs. It is highly desirable as preparation for law school; indeed, some law schools have historically listed it as the preferred undergraduate major. Emphasizing, as it does, careful, deep, critical analysis of concepts and problems, philosophy is an excellent major for students who will seek positions in business and government which require a liberal arts background.

Recent studies show that students who major in philosophy are among the very highest groups in performance on the Graduate Record and other such qualifying examinations.

## Faculty

**RYAN WASSERMAN** (2005) Chair and Associate Professor. BA, Western Washington University; PhD, Rutgers University.

**DANIEL HOWARD-SNYDER** (2001) Professor. BA, Seattle Pacific University; PhD, Syracuse University.

**FRANCES HOWARD-SNYDER** (1993) Professor. BA, MA, University of Capetown; PhD, Syracuse University.

**HUD HUDSON** (1992) Professor. BA, Boise State University; MA, PhD, University of Rochester.

**NED MARKOSIAN** (1998) Professor. BA, Oberlin College; PhD, University of Massachusetts.

**DENNIS WHITCOMB** (2007) Associate Professor. BS, Kansas State University; PhD, Rutgers University.

## Bachelor of Arts

### Philosophy, BA

Department of Philosophy, College of Humanities and Social Sciences

**57 credits**

#### Introduction/What is the Study of Philosophy?

Philosophy is among the oldest of intellectual disciplines. Among the questions dealt with in philosophy courses are "What is knowledge?", "What is truth?", and "Does God exist?" The Philosophy Department believes that consideration of these, and related questions, is fundamental to being educated and, as such,

# PHILOSOPHY

should be of interest to all students. The Department offers a wide range of courses in most of the traditional areas of philosophical concern such as ethics, epistemology, logic, metaphysics, and the history of philosophy.

## Why Consider a Philosophy Major?

Work in Philosophy fits well into many pre-professional programs, including law school. Emphasizing, as it does, careful, deep, critical analysis of concepts and problems, Philosophy is an excellent major for students who will seek positions in business and government which require a liberal arts background.

### Contact Information

#### Major/Transfer Advisor and Philosophy Department Chair

Ryan Wasserman  
Bond Hall 302A  
360-650-3860  
Ryan.Wasserman@wwu.edu

#### Academic Department Manager

DeNora Lombard  
Bond Hall 302B  
360-650-3859  
DeNora.Lombard@wwu.edu

### Sample Careers

Attorney | Analyst | Diplomat | Lobbyist | News Writer | Journalist | Clergy | Critic

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- PHIL 102 - Introduction to Logic
- PHIL 112 - Introduction to Philosophy: Moral Issues
- PHIL 114 - Introduction to Philosophy: Knowledge and Reality
- PHIL 202 - Intermediate Logic
- PHIL 310 - Theory of Knowledge
- PHIL 320 - Ethical Theory I
- PHIL 330 - Metaphysics I
- PHIL 364 - History of Philosophy: Ancient Philosophy
- PHIL 366 - History of Philosophy: the Rationalists
- PHIL 367 - History of Philosophy: the Empiricists
- PHIL 410 - Theory of Knowledge II
- PHIL 417 - Seminar in Philosophy
- PHIL 420 - Ethical Theory II
- PHIL 430 - Metaphysics II
- 15 additional philosophy credits

## Politics/Philosophy/Economics, BA (see Economics Department)

Politics/Philosophy/Economics, BA (see Economics Department)

# Minor

## Philosophy Minor

Department of Philosophy, College of Humanities and Social Sciences

### 24 credits

### Introduction/What is the Study of Philosophy?

### Why Consider a Philosophy Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- PHIL 102 - Introduction to Logic
- PHIL 112 - Introduction to Philosophy: Moral Issues
- PHIL 114 - Introduction to Philosophy: Knowledge and Reality
  - One course from:
    - PHIL 364 - History of Philosophy: Ancient Philosophy
    - PHIL 366 - History of Philosophy: the Rationalists
    - PHIL 367 - History of Philosophy: the Empiricists
    - PHIL 368 - History of Philosophy: Kant and Post-Kantian Philosophy
  - Two courses from:
    - PHIL 310 - Theory of Knowledge
    - PHIL 320 - Ethical Theory I
    - PHIL 330 - Metaphysics I
  - Electives under departmental advisement

## Philosophy Courses

### PHIL 102 - Introduction to Logic

The development of a formal system of propositional and predicate logic for the evaluation of reasoning.

Credits: 3

GUR Attributes: QSR

### PHIL 107 - Logical Thinking

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An aid in speaking and writing so as to reflect clear, critical and responsive thinking, covering definition, classification, fallacies and techniques of good argument. Not applicable to the philosophy major or minor.

Credits: 3

GUR Attributes: BCOM

## **PHIL 112 - Introduction to Philosophy: Moral Issues**

Introduction to philosophical thinking about moral problems. Seeks to understand central moral concepts such as good, right, duty, etc., in the context of contemporary issues.

Credits: 3

GUR Attributes: HUM

## **PHIL 113 - Introduction to Philosophy: Philosophy of Religion**

Special attention is given to questions about the nature and existence of God. Also examined are such topics as the problem of evil, concepts of faith, religious experience, miracles, etc.

Credits: 3

GUR Attributes: HUM

## **PHIL 114 - Introduction to Philosophy: Knowledge and Reality**

Emphasis is given to the nature and possibility of knowledge, to related concepts such as truth, belief and evidence, and to selected metaphysical problems.

Credits: 3

GUR Attributes: HUM

## **PHIL 115 - Environmental Ethics**

This course examines a broad range of environmental issues. Primary emphasis is given to how theoretical frameworks in ethics have been applied in substantive thinking about the rightful treatment of animals, biotic communities, species in danger of extinction, and the protection, conservation, and preservation of natural resources. Emphasis may also be given to how ethical thinking intersects with issues addressed in economics, conservation biology, and other academic disciplines or how ethical perspectives

have influenced social movements, public debate, and law.

Credits: 3

GUR Attributes: HUM

## **PHIL 202 - Intermediate Logic**

The development of a formal system of logic with multiple quantifiers, identity and definite descriptions; other topics may include probability, set theory, metatheory, nonclassical logics, or extensions of classical logic.

**Prerequisites & Notes:** PHIL 102

Credits: 3

## **PHIL 310 - Theory of Knowledge**

The attempt to understand the possibility, nature, origins and limits of knowledge; problems and concepts.

**Prerequisites & Notes:** PHIL 102; PHIL 114 or HNRS 256.

Credits: 3

## **PHIL 320 - Ethical Theory I**

An examination of traditional and contemporary views concerning the overall nature of morality (views such as cognitivism and realism), and also of specific moral theories (such as utilitarianism and contractualism). Other topics include moral rights, moral responsibility and the moral virtues.

**Prerequisites & Notes:** PHIL 112 or HNRS 255 or instructor permission.

Credits: 3

## **PHIL 330 - Metaphysics I**

A systematic study of the fundamental categories of reality, such as existence, substance, property, identity, space, time, change, event, causality, necessity, essence, free will and mind. The philosophical issues in which these categories play a part also will be discussed.

**Prerequisites & Notes:** PHIL 102; PHIL 114 or HNRS 256.

Credits: 3

## **PHIL 335 - Philosophy of Religion**

Philosophy of religion and philosophical theology at an advanced level. Topics may include arguments

for and against the existence of God, the attributes of God, religious pluralism, religion and science, religion and ethics, miracles, and the epistemology of religious belief.

**Prerequisites & Notes:** PHIL 102, PHIL 113

Credits: 3

### **PHIL 340 - Philosophy of Science**

An examination of the basic methods and concepts of the sciences through the study of such topics as explanation, confirmation, causality, probability, laws of nature, theories, revolution, reduction and realism.

**Prerequisites & Notes:** PHIL 102; PHIL 114 or HNRS 256; or instructor permission

Credits: 3

GUR Attributes: HUM

### **PHIL 350 - Political Philosophy**

The nature of the state, and of the institutions and practices of which it is comprised; the basis and scope of political obligation, the proper role of political activity; considerations of concepts of sovereignty, legitimacy, limits of state power, representation, and the like.

**Prerequisites & Notes:** Any one philosophy course or HNRS 255 or HNRS 256; PHIL 350 and PLSC 360 may not both be taken for GUR credit.

Credits: 3

GUR Attributes: HUM

### **PHIL 355 - Aesthetics and the Philosophy of Art**

Examination of the concept of art and related concepts, and also of aesthetic evaluation and interpretation as they apply to nature and to human artifacts.

**Prerequisites & Notes:** One philosophy course

Credits: 3

GUR Attributes: HUM

### **PHIL 360 - Society, Law and Morality**

Concepts and principles involved in analysis and appraisal of social institutions with attention to freedom, rights, justice, and the relation between laws and morality.

**Prerequisites & Notes:** An one philosophy course or HNRS 255 or HNRS 256.

Credits: 3

GUR Attributes: HUM

### **PHIL 364 - History of Philosophy: Ancient Philosophy**

Great philosophical thinkers from the pre-Socratic philosophers to the Hellenistic period; special attention to Plato and Aristotle.

**Prerequisites & Notes:** Any one philosophy course or HNRS 255 or HNRS 256.

Credits: 3

### **PHIL 366 - History of Philosophy: the Rationalists**

Great philosophical thinkers in the rationalist tradition, their problems and their methods: Descartes, Spinoza, Leibniz, et al.

**Prerequisites & Notes:** PHIL 114 or HNRS 256.

Credits: 3

### **PHIL 367 - History of Philosophy: the Empiricists**

Great philosophical thinkers in the empiricist tradition, their problems and their methods: Locke, Berkeley, Hume, et al.

**Prerequisites & Notes:** PHIL 114 or HNRS 256.

Credits: 3

### **PHIL 368 - History of Philosophy: Kant and Post-Kantian Philosophy**

Kant and post-Kantian philosophers, their problems and their methods: Kant, Fichte, Hegel, Schopenhauer, Nietzsche. Normally offered in odd-numbered academic years.

**Prerequisites & Notes:** PHIL 114

Credits: 3

### **PHIL 403 - Philosophy of Language**

An examination of the nature of language through the study of such topics as truth, reference, meaning, use, convention, language's differences from other forms of communication and representation, and language's relations to thought and reality. The relevance of theories on these topics to selected philosophical issues also will be



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discussed.

**Prerequisites & Notes:** PHIL 202  
Credits: 3

## **PHIL 410 - Theory of Knowledge II**

An intensive examination of selected topics and methods in epistemology.

**Prerequisites & Notes:** PHIL 310  
Credits: 3

## **PHIL 417 - Seminar in Philosophy**

Examination of a special topic, a particular philosophical issue or the writings of a specific philosopher. Repeatable for credit, but not as a substitute for PHIL 403 or 425.

**Prerequisites & Notes:** 3 upper-division PHIL courses  
Credits: 3

## **PHIL 420 - Ethical Theory II**

An intensive examination of selected topics and methods in ethical theory.

**Prerequisites & Notes:** PHIL 320  
Credits: 3

## **PHIL 425 - Philosophy of Mind**

A study of the mind through the examination of such topics as the mind-body problem, intentionality, consciousness, 'qualia,' introspection and knowledge of other minds. Philosophical theories on these topics - such as dualism, behaviorism, type physicalism, functionalism and eliminativism.

**Prerequisites & Notes:** PHIL 102 plus one upper-division philosophy course.  
Credits: 3

## **PHIL 430 - Metaphysics II**

An intensive examination of selected topics and methods in metaphysics.

**Prerequisites & Notes:** PHIL 330  
Credits: 3

# Physical Education, Health and Recreation

## Introduction

The Department of Physical Education, Health, and Recreation offers degree programs for students interested in professions related to kinesiology, P-12 physical education and health, community health education, and recreation.

### *Faculty*

The department currently consists of 15 faculty members whose backgrounds span the entire range of kinesiology and physical education, health education, and recreation. Students are provided opportunities to interact individually with faculty who are involved in community projects and research in public schools, kinesiology, health, and recreation.

### *Facilities*

The department is housed in the Carver Academic Facility. For students in the kinesiology and physical education programs, exercise physiology and biomechanics laboratories afford students an opportunity for in-depth study in the exercise sciences and health assessment as applied to health and sports science. Considerable practical experience using laboratory and computerized equipment enables students to develop skills in cardiorespiratory, anthropometric, strength and movement analysis, and health appraisals.

### *Major Programs*

#### *Kinesiology and Physical Education*

The major programs are varied and include undergraduate student preparation for careers as professional physical and health educators, and undergraduate and graduate kinesiology options. Kinesiology degree completion prepares students for clinical or research graduate school programs or for careers as health fitness instructors in agencies, schools, industries, hospitals and health care facilities. Students are expected to perform community service in all programs. The concentrations offered include the following:

- Teacher Education P-12 Physical Education and Health
- Kinesiology
  - Movement Studies
  - Health and Fitness Specialist
  - Pre-Healthcare Professions
  - Pre-Physical Therapy
  - Sport Psychology

#### *Kinesiology and Physical Education Mid-Program Checkpoint*

Students seeking to complete a BAE degree in teacher education P-12 physical education and health or a BS in kinesiology within a four-year time span should have completed the following courses by the start of their junior year:

- All General University Requirements (GURs)
- BIOL 101 or BIOL 205; and BIOL 348 preferred

Major omissions from this list will make it difficult or impossible to complete this degree within two additional years.

**NOTE:** The *teacher education P-12* option requires a 4½-year commitment, which includes a one-semester student teaching internship. Students must meet the minimum entry requirements of the Woodring College of Education before being considered for admission to the P-12 physical education and health program. Students should first declare a pre-major in this specialization in order to register for required pre-major classes and then apply for entry into the P-12 physical education and health program during the fall quarter of their junior

## PHYSICAL EDUCATION, HEALTH AND RECREATION

year while they are enrolled in pre-major courses. Students who do not meet the minimum qualifications of the Woodring College of Education cannot apply to be considered for entry into the P-12 physical education and health program.

**NOTE:** The *pre-physical therapy* specialization of the kinesiology option requires careful planning if students are to complete the degree in a four-year period. It is suggested that students who are interested in this specialization consult with Dr. Gordon Chalmers or Dr. Dave Suprak (PEHR faculty) during their freshman or sophomore year in order to establish a reasonable plan of study for the completion of this degree.

**NOTE: Development Skills/Fitness Leadership - Physical Education Activity Courses**

*Activity courses, with the exception of varsity sports and those so noted, may not be repeated for credit. Courses offered depend on instructor availability. All 100-level physical activity courses are S/U graded. Course fees are variable.*

### *Health Education*

**Health education** is a discipline with roots in the behavioral sciences of psychology, sociology, social psychology, and anthropology; the biological sciences; education; and public health. Health educators use multidisciplinary theories and behavioral and organizational change principles to plan, implement, and evaluate interventions that enable individuals, groups, and communities to achieve personal, social, and environmental health. To this end, health educators apply many different methods and strategies to achieve goals: group process, teaching, training, mass media, communication, community organization, organization development, strategic planning, skills training, legislation, policy development, and advocacy. Health educators practice in schools, colleges, work places, medical care settings, public health settings, and community-based agencies and organizations. (Adapted from the Joint Committee on Health Education and Promotion Terminology.)

**Health educators** are defined by the *U.S. Federal Register* as individuals who promote, maintain, and improve individual and community health by assisting individuals and communities to adopt healthy behaviors. They collect and analyze data to identify community needs prior to planning, implementing, monitoring and evaluating programs designed to encourage healthy lifestyles, policies, and environments. They may also serve as a resource to assist individuals, other professionals, or the community, and may administer fiscal resources for health education programs.

**Certified Health Education Specialists (CHES)** are individuals who have met required health education training qualifications and successfully passed a competency-based examination administered by the National Commission for Health Education Credentialing, Inc. The WWU Community Health major prepares students to meet the eligibility requirements for becoming a Certified Health Education Specialist.

**NOTE:** Students interested in teaching health education in P-12 schools are referred to the Physical Education and Health major to meet state requirements for teaching Health and Fitness in the state of Washington.

### *Health Education Mid-Program Checkpoint*

Students seeking to complete a BS degree in Community Health within a four-year time span should make normal progress toward the GUR requirements and should apply for pre-major admission to the program during their freshman or sophomore year. Admission is competitive and the number of majors accepted is limited. It is suggested that students interested in Community Health consult the program coordinator (Dr. Jeanne Freeman) to establish a reasonable plan of study and be assigned an advisor. The following courses should be completed during the sophomore and junior years and prior to the start of the senior year. Major omissions from this list make it difficult or impossible to complete the degree within the four-year time span.

- HLED 150, HLED 151, HLED 152, HLED 345, HLED 350
- BIOL 348, BIOL 349
- CHEM 121; CHEM 251 or CHEM 351

### *Recreation*

The curriculum in Recreation offers generalist preparation for a wide range of career entry-level positions including:

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- Community Recreation
- Therapeutic Recreation
- Outdoor Recreation
- Tourism

Students seeking to complete a BA degree in Recreation within a four-year time span should have made normal progress toward the GUR requirements and should apply for admission to the program during fall quarter of their sophomore year. Junior and senior level students are also welcome to apply. Interested students are encouraged to contact the Recreation Program faculty advisors as early as possible to insure timely academic progress.

In support of healthy individuals, families, and communities, career opportunities in recreation and leisure services are numerous and diverse. The Recreation curriculum prepares students to plan, develop, and administer programs and resources in a variety of settings. The program is designed as four sequential 15-16 credit hour blocks of classes (phases) with students moving through the program as a cohort group. Students enter Phase 1 of the program during spring quarter, typically during sophomore year. The following schedule shows the sequential order of the four program phases:

-	Fall	Winter	Spring	Summer
<b>Fresh</b>	-	-	-	-
<b>Soph</b>	-	-	<b>I</b>	-
<b>Junior</b>	-	<b>II</b>	<b>III</b>	<b>or III</b>
<b>Senior</b>	<b>IV</b>	-	-	-

The phase system allows maximum flexibility for scheduling students' educational experience to include workshops, field experiences, conferences and seminars both on and off campus. By making use of other departments at Western, statewide recreation resources, and recreation professionals, students are provided with exposure to a wide variety of experiential and service-learning opportunities.

The Recreation Program emphasizes preparation in the broad areas of outdoor recreation, community recreation, therapeutic recreation, and tourism. Community and outdoor recreation graduates find employment in federal and state recreation and park agencies, county and community recreation departments, and non-profit agencies serving people from all walks of life. Therapeutic recreation graduates find employment in hospitals; senior centers; nursing homes; mental health agencies; community recreation departments; and federal, state, and private agencies serving persons with disabilities or other adapted recreation needs. Graduates prepared in tourism plan and lead trips worldwide or work in destination planning.

The Recreation Program is nationally accredited by the Council on Accreditation. Students should inquire directly to the Recreation Program office in Old Carver 6 for current information on admission procedures.

## Faculty

**CHARLES D. SYLVESTER** (1984) Chair and Professor. BS, MA, University of Maryland; PhD, University of Oregon.

**LORRAINE BRILLA** (1985) Professor. BS, Pennsylvania State University; MS, Pennsylvania State University; PhD, University of Oregon.

**RANDALL T. BURTZ** (2003) Associate Professor. BA, MA, Washington State University; PhD, Colorado State University.

**GORDON CHALMERS** (1996) Professor. BS, Simon Fraser University; MS, PhD, University of California-Los Angeles.

**JEANNE FREEMAN** (2007) Associate Professor. BS, LaSierra University; MS, University of Nevada; PhD, University of Arkansas.

**JASMINE GOODNOW** (2013) Assistant Professor. BS, Brigham Young University; MS, University of Utah;

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PhD, University of Utah.

**JILL HECKATHORN** (1980) Senior Instructor. BS, MA, Michigan State University.

**LINDA A. KEELER** (2012) Assistant Professor. BA, Colgate University; MA, University of Maryland; EdD, West Virginia University.

**YING LI** (2006) Associate Professor. BMed, Zhejiang College; MS, Zhejiang University; MEd, University of Cincinnati; PhD, University of Florida.

**LEAANN MARTIN** (1991) Interim Dean and Professor. BS, Southwest Missouri State University; MS, University of Arizona; PhD, University of Texas.

**DERRICK MEARS** (2005) Associate Professor. BS, MS, University of Central Missouri; PhD, University of Arkansas.

**MICHELLE MIELKE** (2012) Assistant Professor. BS, Barry University; MS, Florida Atlantic University; PhD, University of Nebraska.

**KEITH C. RUSSELL** (2008) Professor. BS, Lewis and Clark College; MS, PhD, University of Idaho.

**BERNARDO SAN JUAN JR.** (2013) Assistant Professor. BS, University of Philippines; MA, San Diego State University; PhD, University of Oregon.

**DAVID N. SUPRAK** (2008) Associate Professor. BS, Eastern Washington University; MS, Western Washington University; PhD, University of Oregon.

## Affiliated Teaching Faculty

**WREN CUNNINGHAM** (2012) Instructor, BS, MS, Western Washington University; PhD, Duke University.

**LORI DEKUBBER** (1991) Rehabilitation Athletic Trainer. BS, MEd, Western Washington University.

**KELVEN HALSELL** (1987) Head Coach, Track and Cross Country. BS, MEd, Wayland Baptist University.

**LINDSAY POYNTER** (2010) Instructor. BA, Western Washington University; MA, Naropa University.

**MARC WHITLOCK** (1983) Instructor, BA, Hope College; M.Ed. Western Washington University.

## Bachelor of Arts

### Recreation, BA

Department of Physical Education, Health & Recreation, College of Humanities and Social Sciences

### 66 credits

#### Introduction/What is the Study of Recreation?

The purpose of recreation and leisure is to contribute to the health and well being of individuals and to enhance the quality of community life. As such, the study of Recreation is multidisciplinary, requiring understanding of the social, behavioral, physical, and environmental sciences as they pertain to helping people grow and develop in their leisure while conserving our vital natural resources. Knowledge of the arts and humanities is important as well, because leisure is one of the most fertile opportunities for self-expression and the development of community.

In support of healthy individuals, families, and communities, career opportunities in recreation and leisure services are numerous and diverse. The Recreation curriculum prepares students to design, implement, manage, lead, and evaluate recreation programs and services. The program is designed as four sequential 15-16 credit hour blocks of classes (phases) with students moving through the program as a cohort group. Students enter Phase 1 of the program during spring quarter, typically during their sophomore or junior year. The following schedule shows the sequential order of the four program phases:

-	Fall	Winter	Spring	Summer
Freshman	-	-	-	-
Sophomore	-	-	I	-

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<b>Junior</b>	-	<b>II</b>	<b>III</b>	<b>or III</b>
<b>Senior</b>	<b>IV</b>	-	-	-

The phase system allows maximum flexibility for scheduling students' educational experience to include workshops, field experiences, conferences and seminars both on and off campus. By making use of other departments at Western, statewide recreation resources, and recreation professionals, students are provided with exposure to a wide variety of experiential and service-learning opportunities.

### Why Consider a Recreation Major?

Recreation and leisure contribute to the health and well being of individuals and their communities. Graduates of the Recreation Program are employed throughout the region, nation and world in a variety of settings, including public recreation departments, outdoor recreation programs, hospitals, and tourism agencies. Specific jobs performed by graduates include working as recreation therapists, organizing and leading outdoor adventure trips, managing youth-serving agencies, such as Boys and Girls Clubs, supervising public sports programs, coordinating community cultural arts, operating eco-tourism trips, and serving as park rangers with state and federal agencies. Some graduates have found their degrees useful for work in fields such as social work, the ministry and law enforcement.

The Recreation Program emphasizes preparation in the broad areas of outdoor recreation, community recreation, therapeutic recreation, and tourism. Community and outdoor recreation graduates find employment in federal and state recreation and park agencies, county and community recreation departments, non-profit agencies, and commercial recreation settings. Therapeutic recreation graduates find employment in hospitals; senior centers; nursing homes; mental health agencies; community recreation departments; and federal, state, and private agencies serving persons with disabilities or other adapted recreation needs. Graduates prepared in tourism plan and lead trips worldwide or work in destination planning.

The Recreation Program is nationally accredited by the Council on Accreditation. Students should inquire directly to the Recreation Program office in Old Carver 6 for current information on admission procedures.

#### Contact Information

##### Recreation Program Coordinator Outdoor Recreation/ General Recreation

Keith Russell, Professor  
Carver Gymnasium 6  
360-650-3529  
Keith.Russell@wwu.edu

##### Recreation Program Secretary

Katey Roemmele  
Carver Gymnasium 6  
360-650-7572  
Katey.Roemmele@wwu.edu

##### Community Recreation/ Outdoor Recreation

Randall Burtz, Associate Professor  
Carver Gymnasium 6  
360-650-7572  
Randall.Burtz@wwu.edu

##### Therapeutic Recreation

Charles Sylvester, Professor  
Carver Gymnasium 107  
360-650-3541  
cdsyl@wwu.edu

##### Tourism

Jasmine Goodnow,  
Assistant Professor  
Carver Gymnasium 6  
360-650-2393  
Jasmine.Goodnow@wwu.edu

##### Tourism/Therapeutic Recreation

Jill Heckathorn, Senior  
Instructor  
Carver Gymnasium 6  
360-650-7559  
Jill.Heckathorn@wwu.edu

#### Sample Careers

Recreation Therapist | Outdoor Adventure Leader | Youth Programs Coordinator | Eco-tourism Operator | Park Ranger

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

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## **How to Declare (Admission and Declaration Process):**

First priority is given to students who have submitted applications by the first Thursday in November during fall quarter. After this date, consideration is given to applicants on a case-by-case basis. However, the program is popular and the number of majors admitted is limited, so students are encouraged to apply by the deadline. Students interested in the program should contact the Recreation Program in Old Carver 6 if they have any questions about available space and the application process. Students must have completed 45 quarter unit credits, including approved transfer credits, before starting Phase I. The deadline also applies to transfer students. Transfer students are urged to contact the Recreation Program for guidance and further information. A minor in Recreation is not offered presently.

## **Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

RECR 380 is required for the therapeutic recreation option and is offered fall quarter each year.

#### □ Prerequisite:

- RECR 201 - Foundations of Recreation and Leisure

#### □ Phase I:

- RECR 271 - Introduction to Community Recreation and Leisure Services
- RECR 272 - Introduction to Outdoor Recreation
- RECR 274 - Introduction to Therapeutic Recreation
- RECR 275 - Professional Practicum and Seminar
- RECR 276 - Introduction to Program Leadership
- RECR 279 - Introduction to Tourism

#### □ Phase II:

- RECR 372 - Management of Recreation and Leisure Services
- RECR 373 - Recreation Programming
- RECR 378 - Human Relations: Concepts and Skills

One course from:

- RECR 370 - Outdoor Program Development
- RECR 376 - Therapeutic Recreation Program Design
- RECR 379 - Foundations of Ecotourism
- RECR 385 - Leisure and Aging

#### □ Phase III:

- RECR 471 - Internship I  
and
- RECR 472 - Internship II  
or
- RECR 473 - Internship III

#### □ Phase IV:

- RECR 444 - Recreation Budgeting and Finance
- RECR 450 - Recreation Program Evaluation
- RECR 480 - Leisure and Society

One course from:

- RECR 421 - Therapeutic Recreation Trends and Issues
- RECR 470 - Adventure-Based Programming
- RECR 475 - Community Development and Leisure Services

- RECR 479 - Ecotourism: Principles and Practices

Support Area

Recreation majors must develop a 25-credit support area. Support areas may range from traditional minors (e.g., sociology, environmental studies, business, and other fields) to interdisciplinary studies incorporating courses from a broader spectrum of University course offerings. The interdisciplinary support area is designed under the guidance of the student’s faculty advisor and must have the advisor’s final approval.

## Bachelor of Arts in Education

### Physical Education and Health P-12, BAE

Department of Physical Education, Health & Recreation, College of Humanities and Social Sciences

**131 credits\***

#### Introduction/What is the Study of Physical Education and Health?

The study of Physical Education and Health involves courses in Kinesiology, Behavioral and Cultural Foundations, Health Education, Physical Education pedagogy, and educational foundations. These courses prepare individuals to effectively teach pre-kindergarten through 12th grade students motor skills and movement patterns; develop their understanding of movement concepts, skills, and strategies; and facilitate students' knowledge of health related concepts related to lifelong fitness and health.

The Physical Education and Health P-12 major must be accompanied by the Secondary Education Professional Program offered through Woodring College of Education.

\*84 credits in Physical Education and Health content area; 47 credits from the Secondary Education program including the student teaching internship.

This major leads to an endorsement in health and fitness for grades P-12. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### Why Consider a Teaching Certification in P-12 Physical Education and Health Major?

This major provides concentrated study of Physical and Health Education. Completion of requirements leads to Teacher Certification in P-12 Physical Education and Health (Health and Fitness). The program is unique in that it consists of four sequential five-credit blocks in Physical Education pedagogy with practicum experiences at the elementary, middle, high school, and college levels in diverse teaching environments, allowing students concentrated time to develop teaching strategies while working with children and adolescents in the school based setting. Ongoing analysis of teaching effectiveness is incorporated throughout the program. The health component requires a series of 17 credits of coursework and practica in a health education setting which is integrated into PE 441p. *The number of students admitted into the program is limited.*

Contact Information

**PE/Health - Education Advisors**

Derrick Mears  
Carver Gymnasium 106  
360-650-3106  
Derrick.Mears@wwu.edu

**Secondary Education Website**  
<http://www.wce.wwu.edu/Depts/SEC>

**For General Information**

Sherena Geariety  
Carver Gymnasium 102  
360-650-3505  
Sherena.Geariety@wwu.edu

**Secondary Education Program Manager**

Janna Cecka  
Miller Hall 401C  
360-650-3327

**Secondary Education Program Coordinator**

Debbie Gramm  
Miller Hall 401A



## Sample Careers

P-12 Physical Education Teacher | Health Education Teacher

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

Students desiring entry into the program should follow the process outlined below:

- Meet the minimum qualifications of the Woodring College of Education admissions process. This can be initiated and completed as early as the winter or spring quarters before applying to the physical education and health program the following fall. It is imperative that students begin this process as soon as they are interested in the program. Students who do not meet the minimum qualifications of Woodring College of Education cannot apply for entry into the P-12 physical education and health program.
- Meet with a department advisor to declare the pre-major and outline a plan of study.
- Enroll in KIN 308, PE 340 and BIOL 348 fall quarter.

**NOTE:** BIOL 348 may be taken prior to fall quarter.

- Submit a completed application packet for the P-12 physical education and health program early in October. See advisor for exact application date. Students are encouraged to submit applications as soon as they meet the minimum qualifications of Woodring College of Education. This can be done as early as spring quarter before applying to the P-12 physical education and health program the following fall (applications are available in Carver 102, the main office of the PEHR department).
- Successful completion (grade C or better) of BIOL 348, KIN 308, PE 340
- Applications for the P-12 physical education and health program will be reviewed by faculty, and a limited number of candidates will be accepted into the program and notified prior to winter quarter. Criteria for acceptance are established by physical education faculty, and applications will be evaluated accordingly. Application procedures include an oral presentation and interview.

### **Grade Requirements**

Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement and the academic major.

#### Program of Study

- BIOL 348 - Human Anatomy and Physiology
- HLED 150 - Consumer and Environmental Health
- HLED 151 - Society and Drugs
- HLED 152 - Society and Sex
- HLED 345 - Health Promotion/Disease Prevention
- HLED 455 - Health Education Grades K-8
- KIN 308 - Human Growth and Motor Development
- KIN 312 - Functional Anatomy
- KIN 320 - Psychology of Sport
- KIN 321 - Sociology of Sport
- KIN 410 - Motor Control and Learning
- KIN 413 - Physiology of Exercise
- KIN 416 - Strength and Conditioning Program Design

- KIN 422 - Professional Issues in Health and Exercise Settings
- PE 340 - Block I: Elementary Physical Education Methods
- PE 341 - Block II: Elementary Physical Education Methods
- PE 341P - Elementary Physical Education Practicum
- PE 440 - Block III: Middle School Physical Education Methods
- PE 440P - Middle School Physical Education Practicum
- PE 441 - Block IV: High School Physical Education Methods
- PE 441P - High School Health and Physical Education Practicum
- PE 442P - Practicum in Physical Education
- PE 443 - Adapted Physical Education Methods & Practicum
- SEC 301 - Educational Psychology I: Development and Individual Differences
- SEC 302 - Educational Psychology II: Motivation, Learning and Assessment
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 495 - Internship - Secondary
- One course from:
  - KIN 414 - Physical Activity and Nutrition
  - HLED 350 - Nutrition

## Bachelor of Science

### Community Health, BS

Department of Physical Education, Health & Recreation, College of Humanities and Social Sciences

**102 credits**

#### Introduction/What is the Study of Community Health?

The Community Health degree consists of two to three years of course work in Health Education and supporting areas. This includes required course work in both content and process-oriented Health Education courses, Social Sciences (Anthropology, Psychology, and Sociology), Biological and Physical Sciences (Anatomy and Physiology, Exercise Physiology, and Chemistry), Nutrition, and electives that complement a student's interests and professional needs.

#### Why Consider a Community Health Major?

Community Health Educators assess individual and community needs for health education; plan, implement and administer health education strategies, interventions and programs; conduct evaluation and research; serve as a health education resource; and communicate and advocate for health and health education.

Effective Health Education is ecological in its approach. When planning the focus of interventions, trained Health Educators consider all factors that contribute to health and disease: individual behavior; group dynamics; environmental conditions; economics; politics, laws and policies; culture, ethnicity, and gender; and the availability, accessibility, and quality of health services.

Students who are accepted into the Community Health major explore the biological, social, environmental and individual determinants of health. The curriculum is based on the skills and competencies to become a Certified Health Education Specialist (CHES) through the National Commission on Health Education Credentialing, Inc. The program is rigorous and faculty members emphasize diverse classroom projects and

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community outreach. At the end of the program, a full-time internship (40 hours per week for 10 weeks) in a health education setting is required.

The Community Health major is appropriate for students who want to work in community, public, and global health; health communication; governmental and non-profit agencies and organizations; medical care settings; worksite wellness programs; and college and university student service health education programs. It can also serve as a preparatory program for graduate or post-baccalaureate study in Health Education, Public Health, and related areas.

## Contact Information

### Program Coordinator

Jeanne Freeman  
Carver Gymnasium 101C  
360-650-2125  
Jeanne.Freeman@wwu.edu

## Sample Careers

Community Health Educator | Tobacco Control Specialist | Sexuality Education Coordinator | HIV/AIDS Educator | Hospital-based Wellness Program Director | Public Health Director | Substance Abuse Educator | College Health Educator | Injury Prevention Specialist | Curriculum Development Specialist | Health Consultant | Health Information Specialist | Nutrition and Physical Activity Coordinator

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Admission to the Community Health major is selective and the number of majors is limited. Interested students meet with program faculty to pre-major in Community Health. This allows students access to entry-level courses. Pre-majors are strongly advised to complete biology prerequisites for BIOL 348 and 349 and chemistry prerequisites for CHEM 251 or 351 by the end of the sophomore year. A 2.5 GPA is required to pre-major.

Application to the major is due by October 15 of the year prior to the senior 400-level courses. The application includes an essay; current résumé; two letters of reference; and transcripts. Program faculty will provide information on application specifics. Fulfillment of the requirement does not automatically secure admission to the major. Pre-majors are notified regarding acceptance before winter quarter registration. Majors must maintain the 2.5 GPA in all major courses to enroll in the required full-time internship at the end of the program of study.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

##### *Health Education Core: 67 credits*

- HLED 150 - Consumer and Environmental Health
- HLED 151 - Society and Drugs
- HLED 152 - Society and Sex
- HLED 345 - Health Promotion/Disease Prevention
- HLED 350 - Nutrition
- HLED 407 - Principles and Foundations of Health Education
- HLED 410 - Health Communication and Social Marketing
- HLED 420 - Epidemiology and Biostatistics

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- HLED 432 - Organization and Administration of Community Health Programs
  - HLED 447 - Community Health
  - HLED 450 - Methods and Materials in Health Education
  - HLED 460 - Program Planning and Implementation of Health Programs
  - HLED 465 - Program Evaluation and Research Design
  - One of the following options:
    - HLED 471 - Internship I and
    - HLED 472 - Internship II
    - or
    - HLED 473 - Internship III
- Supporting Required Courses: 25 credits*
- BIOL 348 - Human Anatomy and Physiology
  - BIOL 349 - Human Physiology
  - CHEM 121 - General Chemistry I
  - KIN 413 - Physiology of Exercise
  - One course from:
    - CHEM 251 - Elementary Organic Chemistry
    - CHEM 351 - Organic Chemistry

*Electives Under Advisement: 10 credits*

Students interested in becoming peer health educators through the Lifestyle Advisor Program may include HLED 250 as one of their electives. Enrollment in HLED 250 is contingent upon acceptance into the Lifestyle Advisor Program by the staff of Prevention & Wellness Services.

- SOC 260 - The Family in Society
- SOC 333 - Aging and Societies
- SOC 338 - Sociology of Sexual Behavior
- SOC 340 - Sociology of Organizations
- SOC 380 - Sociology of Youth
- ANTH 353 - Sex and Gender in Culture
- ANTH 424 - Medical Anthropology
- COMM 224 - Small Group Processes
- HLED 210 - Introduction to Public Health
- KIN 435 - Worksite Health Promotion
- JOUR 330 - Principles of Public Relations
- PSY 230 - Lifespan Developmental Psychology
- PSY 240 - Social Psychology
- KIN 414 - Physical Activity and Nutrition
- KIN 415 - Physical Fitness Assessment and Exercise Prescription
- ENG 302 - Introduction to Technical and Professional Writing

Substitutions may be made with approval of the student's advisor.

Exit Requirement: Standard First Aid/CPR certification

### **Kinesiology - Health and Fitness Specialist Specialization, BS**

Department of Physical Education, Health & Recreation, College of Humanities and Social Sciences

**87-96 credits**

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## Introduction/What is the Study of Kinesiology?

This major provides a concentrated study of human movement from mechanical, physiological and pathological perspectives. The program is appropriate for students who plan to work in the fitness/exercise industry or any other field such as coaching or rehabilitation, where human movement and exercise prescription are the focus. Additionally, this degree can serve as the gateway degree to the allied health professions (i.e., physical therapy, occupational therapy, physician assistant) or preparation for post-baccalaureate study in other areas such as exercise physiology, health/ fitness, biomechanics, physical therapy, sport psychology, nutrition, and human growth and motor development. Supporting courses from biology, chemistry, computer science, communications, health education and physics are included to provide more in-depth analysis of principles associated with human structure and function.

## Why Consider a Health and Fitness Specialist Specialization in Kinesiology Major?

Health and fitness specialist professionals work in the health and fitness industry. The program prepares professionals who are skilled in evaluating health behaviors and risk factors, conducting fitness assessments, writing appropriate exercise prescriptions, and motivating individuals to modify negative health habits and maintain positive lifestyle behaviors for optimal health. Health and fitness specialists conduct these activities in the university, clinical, corporate, and commercial or community settings where their clients participate in health promotion and fitness-related activities. This specialization is also appropriate preparation for graduate study in exercise physiology and cardiac or pulmonary rehabilitation.

The Kinesiology major is in very high demand at Western. WWU students are strongly urged to declare the Kinesiology major early in order to be connected with a departmental advisor and to develop a plan of study. Once declared as a major, however, students are not assured access to courses offered in the Kinesiology major until they have accumulated a significant number of credits, allowing them to register when there is space open in the desired classes. **It is often not until late in the junior year or at the start of the senior year that students can start the core classes required in the Kinesiology major due to its popularity.** Some required and elective courses for the Kinesiology major that are offered in other departments can be taken prior to Kinesiology courses.

### Contact Information

#### General Kinesiology Information

Sherena Geariety  
Carver Gymnasium 102  
360-650-3505  
Sherena.Geariety@wwu.edu

#### Health and Fitness Specialist Advisor

Lorrie Brilla  
Carver Gymnasium 26  
360-650-3056  
Lorrie.Brilla@wwu.edu

#### Program Coordinator

Gordon Chalmers  
Engineering Technology 275  
360-650-3113  
Gordon.Chalmers@wwu.edu

### Sample Careers

Wellness Coordinator | Health Club Manager | Personal Trainer | Fitness Product Sales | Pharmaceutical Drug Sales | Biomedical Research &/or Sales | Athletic Trainer\* | Nutrition Specialist\* | Graduate School in Kinesiology\*

\*with post-baccalaureate study

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Contact the Kinesiology- Health and Fitness Specialist Advisor, Lorrie Brilla, to declare the major and develop a plan of study. To explore other Kinesiology specializations, contact Sherena Geariety to be connected with an advisor.

**Advising Tips:** Students are advised to declare the kinesiology major as early as possible in order to be connected with a departmental advisor and develop a plan of study.

See departmental advisor, Lorrie Brilla, for selection of courses. Students may request to be advised by

another KIN/PE program faculty member. To request a new advisor, contact faculty member you would like to be advised by and ask that person to serve as your advisor.

**Registration:** To determine if you can register for a PE, KIN or HLED course in Phase I or Phase II, obtain a "Class Access" document from the Kinesiology and Physical Education Program website.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- BIOL 348 - Human Anatomy and Physiology
- KIN 301 - Survey of Kinesiology, Physical Education and Health
- KIN 304 - Prevention and Care of Athletic Injuries
- KIN 306 - Measurement and Evaluation in Kinesiology
- KIN 308 - Human Growth and Motor Development
- KIN 311 - Biomechanics
- KIN 312 - Functional Anatomy
- KIN 320 - Psychology of Sport
- KIN 409 - Aging and Functional Assessments
- KIN 410 - Motor Control and Learning
- KIN 413 - Physiology of Exercise
- KIN 414 - Physical Activity and Nutrition
- KIN 415 - Physical Fitness Assessment and Exercise Prescription
- KIN 416 - Strength and Conditioning Program Design
- KIN 422 - Professional Issues in Health and Exercise Settings
- Choose one of the following options:
  - KIN 491 - Field Experience I (3 credits)
  - and KIN 492 - Field Experience II (3 credits)
  - OR
  - KIN 491 - Field Experience I (3 credits)
  - and KIN 493 - Exercise And Sport Science Research (3 credits)
  - OR
  - KIN 491 - Field Experience I (3 credits)
  - and KIN 494 - Instructional Assistant (3 credits)
  - OR
  - KIN 471 - Internship I (3 credits)
  - and KIN 472 - Internship II (12 credits)
- Select 4 credits from:
  - PE 101 - Beginning Conditioning
  - PE 102 - Beginning Group Fitness
  - PE 104 - Beginning Yoga
  - PE 108 - Beginning Weight Training
  - PE 134 - Beginning Pickleball
  - PE 144 - Beginning Soccer
  - PE 145 - Beginning Volleyball
  - PE 149 - Beginning Ultimate Disc

## PHYSICAL EDUCATION, HEALTH AND RECREATION

- PE 168 - Beginning Martial Arts
- Select a minimum of 21 credits from below:
  - BIOL 349 - Human Physiology
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - CHEM 251 - Elementary Organic Chemistry
  - CHEM 375 - Elements of Biochemistry
  - COMM 244 - Advocacy Through Media
  - COMM 318 - Professional Communication
  - COMM 325 - Intercultural Communication
  - COMM 327 - Interpersonal Communication
  - COMM 416 - Topics in Communication
  - CSCI 101 - Computers and Applications
  - CSCI 140 - Programming Fundamentals in C++
  - ENG 302 - Introduction to Technical and Professional Writing
  - HLED 345 - Health Promotion/Disease Prevention
  - HLED 350 - Nutrition
  - KIN 315 - Fitness Instruction and Leadership
  - KIN 321 - Sociology of Sport
  - KIN 421 - Psychology of Exercise
  - KIN 435 - Worksite Health Promotion
- Up to one course from (none required):
- KIN 307 - Statistics in Exercise & Sport Science
- OR
- MATH 240 - Introduction to Statistics
- PHYS 114 - Principles of Physics I
- PHYS 115 - Principles of Physics II
- PHYS 116 - Principles of Physics III
- PSY 220 - Introduction to Behavioral Neuroscience
- PSY 230 - Lifespan Developmental Psychology
- PSY 250 - Introduction to Abnormal Psychology

### **Kinesiology - Movement Studies Specialization, BS**

Department of Physical Education, Health & Recreation, College of Humanities and Social Sciences

#### **86-95 credits**

#### **Introduction/What is the Study Kinesiology?**

This major provides a concentrated study of human movement from mechanical, physiological and pathological perspectives. The program is appropriate for students who plan to work in the fitness/exercise industry or any other field such as coaching or rehabilitation, where human movement and exercise prescription are the focus. Additionally, this degree can serve as the gateway degree to the allied health professions (i.e., physical therapy, occupational therapy, physician assistant) or preparation for post-baccalaureate study in other areas such as exercise physiology, health/ fitness, biomechanics, physical therapy, sport psychology, nutrition, and human growth and motor development. Supporting courses from biology, chemistry, computer science, communications, health education and physics are included to provide more in-depth analysis of principles associated with human structure and function.

**Why Consider a Movement Studies Specialization in Kinesiology Major?**

The movement studies specialization is recommended for students who wish to pursue a variety of career opportunities related to kinesiology (see sample career list). Students should seek advising to determine the appropriate set of courses leading to a specialized emphasis.

The Kinesiology major is in very high demand at Western. WWU students are strongly urged to declare the Kinesiology major early in order to be connected with a departmental advisor and to develop a plan of study. Once declared as a major, however, students are not assured access to courses offered in the Kinesiology major until they have accumulated a significant number of credits, allowing them to register when there is space open in the desired classes. **It is often not until late in the junior year or at the start of the senior year that students can start the core classes required in the Kinesiology major due to its popularity.** Some required and elective courses for the Kinesiology major that are offered in other departments can be taken prior to Kinesiology courses. *Due to very high enrollment in the Kinesiology major, declare your major as soon as possible, and seek advising early and often!*

Contact Information		
<p><b>General Kinesiology Information</b>                      Sherena Geariety                      Carver Gymnasium 102                      360-650-3505                      Sherena.Geariety@wwu.edu</p>	<p><b>Movement Studies Specialization Advisor</b>                      Gordon Chalmers                      Engineering Technology 275                      360-650-3113                      Gordon.Chalmers@wwu.edu</p> <p><b>Movement Studies Specialization Advisor</b>                      David Suprak                      Carver Gymnasium 105                      360-650-2586                      David.Suprak@wwu.edu</p>	<p><b>Program Coordinator</b>                      Gordon Chalmers                      Engineering Technology 275                      360-650-3113                      Gordon.Chalmers@wwu.edu</p>

**Sample Careers**  
 Wellness Coordinator | Health Club Manager | Personal Trainer | Fitness Product Sales | Pharmaceutical Drug Sales | Biomedical Research &/or Sales | Athletic Trainer\* | Nutrition Specialist\* | Graduate School in Kinesiology\*  
 \*with post-baccalaureate study

**Major/Career Resources**  
[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Contact Sherena Geariety in the PEHR department to obtain advisor assignment and, after meeting with the departmental advisor, to declare a major in your specialization.

**Advising Tips:** Students are advised to declare the kinesiology major early in order to be connected with a departmental advisor and develop a plan of study. See departmental advisor for selection of courses. Students may request to be advised by another KIN/PE program faculty member. To request a new advisor, contact the faculty member you would like to be advised by and ask that person to be your advisor.

**Registration:** To determine if you can register for a PE, KIN or HLED course in Phase I or Phase II, obtain a "Class Access" document from the Kinesiology and Physical Education Program website.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.



# PHYSICAL EDUCATION, HEALTH AND RECREATION

## Requirements

- BIOL 348 - Human Anatomy and Physiology
- KIN 301 - Survey of Kinesiology, Physical Education and Health
- KIN 306 - Measurement and Evaluation in Kinesiology
- One course from:
  - KIN 308 - Human Growth and Motor Development
  - KIN 409 - Aging and Functional Assessments
  - KIN 311 - Biomechanics
  - KIN 312 - Functional Anatomy
- 3 credits from:
  - KIN 320 - Psychology of Sport
  - KIN 321 - Sociology of Sport
  - KIN 410 - Motor Control and Learning
  - KIN 413 - Physiology of Exercise
  - KIN 416 - Strength and Conditioning Program Design
  - KIN 422 - Professional Issues in Health and Exercise Settings
- Choose one of the following options:
  - KIN 491 - Field Experience I (3 credits)
  - and KIN 492 - Field Experience II (3 credits)
  - OR
  - KIN 491 - Field Experience I (3 credits)
  - and KIN 493 - Exercise And Sport Science Research (3 credits)
  - OR
  - KIN 491 - Field Experience I (3 credits)
  - and KIN 494 - Instructional Assistant (3 credits)
  - OR
  - KIN 471 - Internship I (3 credits)
  - and KIN 472 - Internship II (12 credits)
- Select 4 credits from:
  - PE 101 - Beginning Conditioning
  - PE 102 - Beginning Group Fitness
  - PE 104 - Beginning Yoga
  - PE 108 - Beginning Weight Training
  - PE 134 - Beginning Pickleball
  - PE 144 - Beginning Soccer
  - PE 145 - Beginning Volleyball
  - PE 149 - Beginning Ultimate Disc
  - PE 168 - Beginning Martial Arts
- Select a minimum of 35 credits from:
  - BIOL 349 - Human Physiology
  - HLED 345 - Health Promotion/Disease Prevention
  - HLED 350 - Nutrition
  - KIN 304 - Prevention and Care of Athletic Injuries
  - KIN 315 - Fitness Instruction and Leadership
  - KIN 414 - Physical Activity and Nutrition
  - KIN 415 - Physical Fitness Assessment and Exercise Prescription

## PHYSICAL EDUCATION, HEALTH AND RECREATION

- KIN 421 - Psychology of Exercise
  - KIN 435 - Worksite Health Promotion
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - CHEM 251 - Elementary Organic Chemistry
  - CHEM 375 - Elements of Biochemistry
  - COMM 244 - Advocacy Through Media
  - COMM 318 - Professional Communication
  - COMM 325 - Intercultural Communication
  - COMM 327 - Interpersonal Communication
  - COMM 416 - Topics in Communication
  - CSCI 101 - Computers and Applications
  - CSCI 140 - Programming Fundamentals in C++
  - ENG 302 - Introduction to Technical and Professional Writing
  - PHYS 114 - Principles of Physics I
  - PHYS 115 - Principles of Physics II
  - PHYS 116 - Principles of Physics III
  - PSY 220 - Introduction to Behavioral Neuroscience
  - PSY 230 - Lifespan Developmental Psychology
  - PSY 250 - Introduction to Abnormal Psychology
- Up to one course from (none required):
- KIN 307 - Statistics in Exercise & Sport Science
  - MATH 240 - Introduction to Statistics
- Up to one course from (none required):
- KIN 308 - Human Growth and Motor Development
  - KIN 409 - Aging and Functional Assessments
- Up to one course from (none required):
- KIN 320 - Psychology of Sport
  - KIN 321 - Sociology of Sport

NOTE: KIN 308, KIN 320, KIN 321 and KIN 409 cannot be counted twice.

### **Kinesiology - Pre-Healthcare Professions Specialization, BS**

Department of Physical Education, Health & Recreation, College of Humanities and Social Sciences

#### **104-105 credits**

#### **Introduction/What is the Study of Kinesiology?**

This major provides a concentrated study of human movement from mechanical, physiological and pathological perspectives. The program is appropriate for students who plan to work in the fitness/exercise industry or any other field such as coaching or rehabilitation, where human movement and exercise prescription are the focus. Additionally, this degree can serve as the gateway degree to the allied health professions (i.e., occupational therapy, physician assistant) or preparation for post-baccalaureate study in other areas such as exercise physiology, health/fitness, biomechanics, physical therapy, sport psychology, nutrition, and human growth and motor development. Supporting courses from biology, chemistry, computer science, communications, health education and physics are included to provide more in-depth analysis of principles associated with human structure and function.

## PHYSICAL EDUCATION, HEALTH AND RECREATION

### Why Consider a Pre-Healthcare Professions Specialization in the Kinesiology Major?

The pre-healthcare professions option is available for students who wish to pursue post-baccalaureate study in a healthcare profession such as occupational therapy, physician assistant, nursing, naturopathy or chiropractic. Students meet with an advisor to select a set of courses that will meet the admission requirements of their program(s) of choice. This option also can serve as a foundation for graduate study in exercise science.

The Kinesiology major is in very high demand at Western. WWU students are strongly urged to declare the Kinesiology major early in order to be connected with a departmental advisor and to develop a plan of study. Once declared as a major, however, students are not assured access to courses offered in the Kinesiology major until they have accumulated a significant number of credits, allowing them to register when there is space open in the desired classes. **It is often not until late in the junior year or at the start of the senior year that students can start the core classes required in the Kinesiology major due to its popularity.** Some required and elective courses for the Kinesiology major that are offered in other departments can be taken prior to Kinesiology courses. *Due to very high enrollment in the Kinesiology major, declare your major as soon as possible, and seek advising early and often!*

#### Contact Information

##### General Kinesiology Information

Sherena Geariety  
Carver Gymnasium 102  
360-650-3505  
Sherena.Geariety@wwu.edu

##### Pre-Healthcare Professions Specialization Advisor

Gordon Chalmers  
Engineering Technology 275  
360-650-3113  
Gordon.Chalmers@wwu.edu

##### Program Coordinator

Gordon Chalmers  
Engineering Technology 275  
360-650-3113  
Gordon.Chalmers@wwu.edu

##### Pre-Healthcare Professions Specialization Advisor

David Suprak  
Carver Gymnasium 105  
360-650-2586  
David.Suprak@wwu.edu

#### Sample Careers

Nursing\* | Occupational Therapy\* | Physician Assistant\* | Naturopathic Medicine\* | Chiropractic Medicine\* | Wellness Coordinator | Health Club Manager | Personal Trainer | Fitness Product Sales | Pharmaceutical Drug Sales | Biomedical Research &/or Sales | Athletic Trainer\* | Nutrition Specialist\* | Graduate School in Kinesiology\*

\*with post-baccalaureate study

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Contact Sherena Geariety in the PEHR department to obtain advisor assignment and, after meeting with the departmental advisor, to declare a major in your specialization.

**Advising Tips:** Students are advised to declare the kinesiology major early in order to be connected with a departmental advisor and develop a plan of study. See departmental advisor for selection of courses. Students may request to be advised by another KIN/PE program faculty member. To request a new advisor, contact the faculty member you would like to be advised by and ask that person to be your advisor.

**Registration:** To determine if you can register for a PE, KIN or HLED course in Phase I or Phase II, obtain a "Class Access" document from the Kinesiology and Physical Education Program website.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- BIOL 348 - Human Anatomy and Physiology
- KIN 301 - Survey of Kinesiology, Physical Education and Health
- KIN 306 - Measurement and Evaluation in Kinesiology
- One course from:
  - KIN 308 - Human Growth and Motor Development
  - KIN 409 - Aging and Functional Assessments
  - KIN 311 - Biomechanics
  - KIN 312 - Functional Anatomy
  - One course from:
    - KIN 320 - Psychology of Sport
    - KIN 321 - Sociology of Sport
    - KIN 410 - Motor Control and Learning
    - KIN 413 - Physiology of Exercise
    - KIN 416 - Strength and Conditioning Program Design
    - KIN 422 - Professional Issues in Health and Exercise Settings
  - Choose one of the following options:
    - KIN 491 - Field Experience I (3 credits)  
and KIN 492 - Field Experience II (3 credits)  
OR  
KIN 491 - Field Experience I (3 credits)  
and KIN 493 - Exercise And Sport Science Research (3 credits)  
OR  
KIN 491 - Field Experience I (3 credits)  
and KIN 494 - Instructional Assistant (3 credits)  
OR  
KIN 471 - Internship I (3 credits)  
and KIN 472 - Internship II (12 credits)
  - Select 4 credits from:
    - PE 101 - Beginning Conditioning
    - PE 102 - Beginning Group Fitness
    - PE 104 - Beginning Yoga
    - PE 108 - Beginning Weight Training
    - PE 134 - Beginning Pickleball
    - PE 144 - Beginning Soccer
    - PE 145 - Beginning Volleyball
    - PE 149 - Beginning Ultimate Disc
    - PE 168 - Beginning Martial Arts
- Students should select 53 credits if they complete the field experience option, or 45 credits if they complete the internship option.
- ANTH 201 - Introduction to Cultural Anthropology
- ANTH 215 - Introductory Biological Anthropology

## PHYSICAL EDUCATION, HEALTH AND RECREATION

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- BIOL 245 - Microbiology for Health Sciences
- BIOL 349 - Human Physiology
- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- CHEM 251 - Elementary Organic Chemistry
- CHEM 351 - Organic Chemistry
- CHEM 352 - Organic Chemistry
- CHEM 353 - Organic Chemistry
- CHEM 354 - Organic Chemistry Laboratory I
- CHEM 356 - Organic Chemistry Laboratory II for Life Sciences
- CHEM 375 - Elements of Biochemistry
- ENG 302 - Introduction to Technical and Professional Writing
- HLED 345 - Health Promotion/Disease Prevention
- KIN 409 - Aging and Functional Assessments
- KIN 421 - Psychology of Exercise
- PHYS 101 - Physics Analysis
- PHYS 114 - Principles of Physics I
- PHYS 115 - Principles of Physics II
- PHYS 116 - Principles of Physics III
- PSY 101 - Introduction to Psychology
- PSY 230 - Lifespan Developmental Psychology
- PSY 250 - Introduction to Abnormal Psychology
- Up to one course from (none required):
- KIN 307 - Statistics in Exercise & Sport Science
- MATH 240 - Introduction to Statistics
- Up to one course from (none required):
- KIN 414 - Physical Activity and Nutrition
- HLED 350 - Nutrition

NOTE: KIN 409 cannot be counted twice.

### **Kinesiology - Pre-Physical Therapy Specialization, BS**

Department of Physical Education, Health & Recreation, College of Humanities and Social Sciences

#### **104-105 credits**

##### **Introduction/What is the Study of Kinesiology?**

This major provides a concentrated study of human movement from mechanical, physiological and pathological perspectives. The program is appropriate for students who plan to work in the fitness/exercise industry or any other field such as coaching or rehabilitation, where human movement and exercise prescription are the focus. Additionally, this degree can serve as the gateway degree to the allied health professions (i.e., physical therapy, occupational therapy, nursing, physician assistant) or preparation for post-baccalaureate study in other areas such as exercise physiology, health/ fitness, biomechanics, physical therapy, sport psychology, nutrition, and human growth and motor development. Supporting courses from

biology, chemistry, computer science, communications, health education and physics are included to provide more in-depth analysis of principles associated with human structure and function.

**Why Consider a Pre-Physical Therapy Specialization in the Kinesiology Major?**

The pre-physical therapy option is available for students who wish to pursue graduate study in a physical therapy program. Students meet with an advisor to select a set of courses that will meet the admission requirements of their program(s) of choice. This option also can serve as a foundation for graduate study in exercise science.

The Kinesiology major is in very high demand at Western. WWU students are strongly urged to declare the Kinesiology major early in order to be connected with a departmental advisor and to develop a plan of study. Once declared as a major, however, students are not assured access to courses offered in the Kinesiology major until they have accumulated a significant number of credits, allowing them to register when there is space open in the desired classes. **It is often not until late in the junior year or at the start of the senior year that students can start the core classes required in the Kinesiology major due to its popularity.** Some required and elective courses for the Kinesiology major that are offered in other departments can be taken prior to Kinesiology courses. *Due to very high enrollment in the Kinesiology major, declare your major as soon as possible, and seek advising early and often!*

Contact Information

**General Kinesiology Information**

Sherena Geariety  
Carver Gymnasium 102  
360-650-3505  
Sherena.Geariety@wwu.edu

**Pre-Physical Therapy Specialization Advisor**

Gordon Chalmers  
Engineering Technology 275  
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Gordon.Chalmers@wwu.edu

**Program Coordinator**

Gordon Chalmers  
Engineering Technology 275  
360-650-3113  
Gordon.Chalmers@wwu.edu

**Pre-Physical Therapy Specialization Advisor**

David Suprak  
Carver Gymnasium 105  
360-650-2586  
David.Suprak@wwu.edu

Sample Careers

Wellness Coordinator | Health Club Manager | Personal Trainer | Fitness Product Sales | Pharmaceutical Drug Sales | Biomedical Research &/or Sales | Athletic Trainer\* | Nutrition Specialist\* | Graduate School in Kinesiology\*

\*with post-baccalaureate study

Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Contact Sherena Geariety in the PEHR department to obtain advisor assignment and, after meeting with the departmental advisor, to declare a major in your specialization.

**Advising Tips:** Students are advised to declare the kinesiology major early in order to be connected with a departmental advisor and develop a plan of study. See departmental advisor for selection of courses. Students may request to be advised by another KIN/PE program faculty member. To request a new advisor, contact the faculty member you would like to be advised by and ask that person to be your advisor.

**Registration:** To determine if you can register for a PE, KIN or HLED course in Phase I or Phase II, obtain a "Class Access" document from the Kinesiology and Physical Education Program website.

# PHYSICAL EDUCATION, HEALTH AND RECREATION

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- BIOL 348 - Human Anatomy and Physiology
- KIN 301 - Survey of Kinesiology, Physical Education and Health
- KIN 306 - Measurement and Evaluation in Kinesiology
- One course from:
  - KIN 308 - Human Growth and Motor Development
  - KIN 409 - Aging and Functional Assessments
  - KIN 311 - Biomechanics
  - KIN 312 - Functional Anatomy
- One course from:
  - KIN 320 - Psychology of Sport
  - KIN 321 - Sociology of Sport
  - KIN 410 - Motor Control and Learning
  - KIN 413 - Physiology of Exercise
  - KIN 416 - Strength and Conditioning Program Design
  - KIN 422 - Professional Issues in Health and Exercise Settings
- Choose one of the following options:
  - KIN 491 - Field Experience I (3 credits)
  - and KIN 492 - Field Experience II (3 credits)
  - OR
  - KIN 491 - Field Experience I (3 credits)
  - and KIN 493 - Exercise And Sport Science Research (3 credits)
  - OR
  - KIN 491 - Field Experience I (3 credits)
  - and KIN 494 - Instructional Assistant (3 credits)
  - OR
  - KIN 471 - Internship I (3 credits)
  - and KIN 472 - Internship II (12 credits)
- Select 4 credits from:
  - PE 101 - Beginning Conditioning
  - PE 102 - Beginning Group Fitness
  - PE 104 - Beginning Yoga
  - PE 108 - Beginning Weight Training
  - PE 134 - Beginning Pickleball
  - PE 144 - Beginning Soccer
  - PE 145 - Beginning Volleyball
  - PE 149 - Beginning Ultimate Disc
  - PE 168 - Beginning Martial Arts
- Students should select 53 credits if they complete the field experience option, or 45 credits if they complete the internship option.
  - BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
  - BIOL 205 - Introduction to Cellular and Molecular Biology
  - BIOL 206 - Introduction to Organismal Biology

- BIOL 245 - Microbiology for Health Sciences
- BIOL 349 - Human Physiology
- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- CHEM 251 - Elementary Organic Chemistry
- ENG 302 - Introduction to Technical and Professional Writing
- KIN 409 - Aging and Functional Assessments
- KIN 421 - Psychology of Exercise
- PHYS 114 - Principles of Physics I
- PHYS 115 - Principles of Physics II
- PHYS 116 - Principles of Physics III
- PSY 101 - Introduction to Psychology
- PSY 230 - Lifespan Developmental Psychology
- PSY 250 - Introduction to Abnormal Psychology
- Up to one course from (none required):
- KIN 307 - Statistics in Exercise & Sport Science
- MATH 240 - Introduction to Statistics

## **Kinesiology - Sport Psychology Specialization, BS**

Department of Physical Education, Health and Recreation, College of Humanities and Social Sciences

### **87-99 credits**

#### **Introduction/What is the Study of Kinesiology?**

This major provides a concentrated study of human movement from mechanical, physiological and pathological perspectives. The program is appropriate for students who plan to work in the fitness/exercise industry or any other field such as coaching or rehabilitation, where human movement and exercise prescription are the focus. Additionally, this degree can serve as the gateway degree to the allied health professions (i.e., physical therapy, occupational therapy, physician assistant) or preparation for post-baccalaureate study in other areas such as exercise physiology, health/ fitness, biomechanics, physical therapy, sport psychology, nutrition, and human growth and motor development. Supporting courses from biology, chemistry, computer science, communications, health education and physics are included to provide more in-depth analysis of principles associated with human structure and function.

#### **Why Consider a Sport Psychology Specialization in the Kinesiology Major?**

The sport psychology option provides students with the behavioral knowledge and educational techniques to enhance performance in recreational, exercise, and athletic settings. This option provides an emphasis in psychology and exercise science that will serve as preparation for coaching and as an adequate set of prerequisites for post-baccalaureate study in sport and/or exercise psychology.

The Kinesiology major is in very high demand at Western. WWU students are strongly urged to declare the Kinesiology major early in order to be connected with a departmental advisor and to develop a plan of study. Once declared as a major, however, students are not assured access to courses offered in the Kinesiology major until they have accumulated a significant number of credits, allowing them to register when there is space open in the desired classes. **It is often not until late in the junior year or at the start of the senior year that students can start the core classes required in the Kinesiology major due to its popularity.** Some required and elective courses for the Kinesiology major that are offered in other departments can be taken prior to Kinesiology courses. *Due to very high enrollment in the Kinesiology major, declare your major as soon as possible, and seek advising early and often!*



# PHYSICAL EDUCATION, HEALTH AND RECREATION

## Contact Information

### General Kinesiology Information

Sherena Geariety  
Carver Gymnasium 102  
360-650-3505  
Sherena.Geariety@wwu.edu

### Sports Psychology Specialization Advisor

Linda Keeler  
Carver Gymnasium 106  
360-650-3514  
Linda.Keeler@wwu.edu

### Program Coordinator

Gordon Chalmers  
Engineering Technology 275  
360-650-3113  
Gordon.Chalmers@wwu.edu

## Sample Careers

Athletic Coaching | Wellness Coordinator | Health Club Manager | Personal Trainer | Fitness Product Sales | Pharmaceutical Drug Sales | Biomedical Research &/or Sales | Athletic Trainer\* | Graduate School in Kinesiology\*

\*with post-baccalaureate study

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Contact Sherena Geariety in the PEHR department to obtain advisor assignment and, after meeting with the departmental advisor, to declare a major in your specialization.

**Advising Tips:** Students are advised to declare the kinesiology major early in order to be connected with a departmental advisor and develop a plan of study. See departmental advisor for selection of courses. Students may request to be advised by another KIN/PE program faculty member. To request a new advisor, contact the faculty member you would like to be advised by and ask that person to be your advisor.

**Registration:** To determine if you can register for a PE, KIN or HLED course in Phase I or Phase II, obtain a "Class Access" document from the Kinesiology and Physical Education Program website.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- BIOL 348 - Human Anatomy and Physiology
- KIN 301 - Survey of Kinesiology, Physical Education and Health
- KIN 306 - Measurement and Evaluation in Kinesiology
- One course from:
  - KIN 308 - Human Growth and Motor Development
  - KIN 409 - Aging and Functional Assessments
  - KIN 311 - Biomechanics
  - KIN 312 - Functional Anatomy
  - KIN 320 - Psychology of Sport
  - KIN 321 - Sociology of Sport
  - KIN 410 - Motor Control and Learning
  - KIN 413 - Physiology of Exercise
  - KIN 416 - Strength and Conditioning Program Design
  - KIN 420 - Seminar in Sport Psychology
  - KIN 421 - Psychology of Exercise
  - KIN 422 - Professional Issues in Health and Exercise Settings

## PHYSICAL EDUCATION, HEALTH AND RECREATION

- PSY 101 - Introduction to Psychology
- PSY 210 - Cognition
- PSY 230 - Lifespan Developmental Psychology
- PSY 240 - Social Psychology
- PSY 250 - Introduction to Abnormal Psychology
- Choose one of the following options:
  - KIN 491 - Field Experience I (3 credits)
  - and KIN 492 - Field Experience II (3 credits)
  - OR
  - KIN 491 - Field Experience I (3 credits)
  - and KIN 493 - Exercise And Sport Science Research (3 credits)
  - OR
  - KIN 491 - Field Experience I (3 credits)
  - and KIN 494 - Instructional Assistant (3 credits)
  - OR
  - KIN 471 - Internship I (3 credits)
  - and KIN 472 - Internship II (12 credits)
- Select 4 credits from:
  - PE 101 - Beginning Conditioning
  - PE 102 - Beginning Group Fitness
  - PE 104 - Beginning Yoga
  - PE 108 - Beginning Weight Training
  - PE 134 - Beginning Pickleball
  - PE 144 - Beginning Soccer
  - PE 145 - Beginning Volleyball
  - PE 149 - Beginning Ultimate Disc
  - PE 168 - Beginning Martial Arts
- Select one course under advisement from:
  - HLED 345 - Health Promotion/Disease Prevention
  - KIN 304 - Prevention and Care of Athletic Injuries
  - KIN 307 - Statistics in Exercise & Sport Science
  - KIN 315 - Fitness Instruction and Leadership
  - KIN 414 - Physical Activity and Nutrition
  - KIN 415 - Physical Fitness Assessment and Exercise Prescription
  - PSY 119 - Psychology of Gender
  - PSY 220 - Introduction to Behavioral Neuroscience
  - PSY 319 - Cognitive Neuroscience
  - PSY 322 - Motivation
  - PSY 323 - Psychopharmacology
  - PSY 341 - Psychology and Culture
  - PSY 375 - Health Psychology
  - PSY 377 - Positive Psychology

## Master of Science

### Kinesiology, Exercise Science, Thesis, MS

*College of Humanities and Social Sciences*

#### Graduate Faculty

**Brilla, Lorraine**, PhD, exercise physiology/nutrition.

**Chalmers, Gordon**, PhD, motor control/learning.

**Keeler, Linda**, EdD, sport psychology.

**Martin, LeaAnn**, PhD, pedagogy/elementary physical education/curriculum.

**Mears, Derrick**, PhD, pedagogy/secondary physical education/curriculum.

**Mielke, Michelle**, PhD, exercise physiology/nutrition.

**San Juan Jr., Bernardo**, PhD, biomechanics/functional anatomy.

**Suprak, David**, PhD, motor development, biomechanics.

Program Advisor: Lorrie Brilla, CV 26, 360-650-3056

#### Program Description

Graduate study leading to a Master of Science degree is offered in two areas: exercise science and sport psychology. The purpose of the program is to provide students with the technical and professional knowledge necessary for the assessment and improvement of human movement and performance. Students will be provided with information that will assist them in the design and implementation of programs that enhance human movement and performance. Through independent research and inquiry, students will solve problems associated with human movement and performance.

#### Goals

The educational mission of the program is to develop individuals who make informed decisions about exercise, human movement, and performance, that foster health and physically active lifestyles. To this end faculty are dedicated to quality teaching, scholarship and service.

#### Prerequisites

Kinesiology major/minor or equivalent courses from the exercise science, behavioral and cultural and professional activity areas are required prerequisites for the graduate program. An applicant to the **exercise science program** who does not have a major or minor must take the following equivalency courses: three courses from the exercise science area (KIN 306, 308, 309, 311, 312, 410, 413, 416), one behavioral and cultural foundations course (KIN 320, 321, 323), and two credits from the PE 100-level activity courses. All applicants must have taken an introductory statistics course. These courses may be taken concurrently with graduate courses but must be completed before submitting a thesis proposal. Equivalent courses taken at other institutions may be applied.

#### Application Information

**Admission:** Program faculty will review application materials for notification by February 1 and will continue to review materials until the enrollment is reached or June 1, whichever comes first for fall quarter admission. Students may enter at other quarters. Because maximum student enrollment in the exercise science program is limited, all applicants are strongly encouraged to submit application materials by February 1. The exercise science area accepts students every year.

Applicants to the sport psychology program are admitted based on specific qualifications that can be found on the department's website.

Specific Test Requirements: Graduate Record Exam, General Test; applicants with advanced degrees are not required to submit GRE scores.

**Deadlines:** Please see Graduate School deadlines.

**TA Deadlines:** To receive full consideration for a graduate teaching assistantship, applicants should have their application materials reviewed by February 1.

**Supporting Materials:**

- Students must submit a written statement of purpose outlining areas of interest, goals for graduate study and future career plans relating to the degree.

Program Requirements (45-50 credits)

- Basic requirements: (13-16)
    - KIN 506 - Research Design in Human Movement and Performance
    - KIN 520 - Readings in Human Movement and Performance
    - KIN 690 - Thesis
  - Required courses: (20)
    - KIN 510 - Laboratory Techniques in Exercise Science
    - KIN 513 - Exercise Prescription and Programming
    - KIN 540 - Applied Exercise Physiology
    - KIN 543 - Biomechanical Analysis of Human Movement
    - KIN 544 - Biomechanics of the Musculoskeletal System
  - Electives: — Select 14 credits from:
    - KIN 502 - Research Topics in Human Movement and Performance
    - KIN 507 - Motor Control
    - KIN 511 - Physical Activity and Hypokinetic Diseases
    - KIN 512 - Data Processing Methods
    - KIN 516 - Advanced Conditioning Principles and Practice
    - KIN 533 - Cardiovascular Physiology
    - KIN 541 - Foundations and Ethics of Sport Psychology
    - KIN 592 - Internship
    - PSY 512 - Correlation Methods and Data Analysis
    - PSY 513 - Experimental Methods and Data Analysis
- 400 level courses selected under departmental advisement

## **Kinesiology, Sport Psychology, Thesis, MS**

*College of Humanities and Social Sciences*

### **Graduate Faculty**

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Program Advisor: Dr. Lorrie Brilla, CV 26, 360-650-3056

# PHYSICAL EDUCATION, HEALTH AND RECREATION

## Program Description

Graduate study leading to a Master of Science degree is offered in two areas: exercise science and sport psychology. The purpose of the program is to provide students with the technical and professional knowledge necessary for the assessment and improvement of human movement and performance. Students will be provided with information that will assist them in the design and implementation of programs that enhance human movement and performance. Through independent research and inquiry, students will solve problems associated with human movement and performance.

## Goals

The educational mission of the program is to develop individuals who make informed decisions about exercise, human movement, and performance, that foster health and physically active lifestyles. To this end faculty are dedicated to quality teaching, scholarship and service.

## Prerequisites

Kinesiology major/minor or equivalent courses from the exercise science, behavioral and cultural and professional activity areas are required prerequisites for the graduate program. An applicant to the **sport psychology** program who does not have a major or minor must take the following equivalency courses: two courses from the exercise science area (KIN 306, 308, 309, 311, 312, 410, 413, 416), two behavioral and cultural foundations courses (KIN 320, 321, 323), and two credits from the PE 100-level activity courses. Students applying to the sport psychology program must have a minimum of 15 credits in undergraduate psychology courses.

All applicants must have taken an introductory statistics course. These courses may be taken concurrently with graduate courses but must be completed before submitting a thesis proposal. Equivalent courses taken at other institutions may be applied.

## Application Information

**Admission:** Program faculty will review application materials for notification by February 1 and will continue to review materials until the enrollment is reached or June 1, whichever comes first for fall quarter admission. Because maximum student enrollment in the sport psychology program is limited, all applicants are strongly encouraged to submit application materials by February 1. For sport psychology, 3-5 applicants are accepted in the fall quarter of odd-numbered years.

Applicants to the sport psychology program are admitted based on specific qualifications that can be found on the department's website.

**Specific Test Requirements:** Graduate Record Exam, General Test; applicants with advanced degrees are not required to submit GRE scores.

**Deadlines:** Please see Graduate School deadlines.

**TA Deadlines:** To receive full consideration for a graduate teaching assistantship, applicants should have their application materials submitted by February 1.

### Supporting Materials:

- Students must submit a written statement of purpose outlining areas of interest, goals for graduate study and future career plans relating to the degree.

### Program Requirements (45-48 credits)

- Basic Requirements: (13-16)
  - KIN 506 - Research Design in Human Movement and Performance
  - KIN 520 - Readings in Human Movement and Performance
  - KIN 690 - Thesis
- Required Courses: (16)
  - KIN 541 - Foundations and Ethics of Sport Psychology

- KIN 542 - Seminar in Sport Sociology
  - KIN 551 - Applied Sport and Exercise Psychology
  - KIN 592 - Internship
  - Electives: 16 credits (at least 6 credits required from psychology)
    - KIN 502 - Research Topics in Human Movement and Performance
    - KIN 507 - Motor Control
    - KIN 511 - Physical Activity and Hypokinetic Diseases
    - KIN 513 - Exercise Prescription and Programming
    - KIN 533 - Cardiovascular Physiology
    - KIN 540 - Applied Exercise Physiology
    - KIN 543 - Biomechanical Analysis of Human Movement
    - KIN 544 - Biomechanics of the Musculoskeletal System
    - PSY 502 - Adult Psychopathology
    - PSY 503 - Cognition
    - PSY 504 - Lifespan Psychological Development
    - PSY 505 - Social Psychology
    - PSY 512 - Correlation Methods and Data Analysis
    - PSY 543 - Seminar in Cognition
    - PSY 544 - Seminar in Developmental Psychology
    - PSY 546 - Seminar in Social Psychology
    - PSY 554 - Standardized Tests
- 400 level courses selected under departmental advisement (maximum 10 credits).

## Minor

### Sport Psychology Minor

Combined minor offered by the Department of Psychology, College of Humanities and Social Sciences and the Department of Physical Education, Health and Recreation

#### 30 credits

#### Introduction/What is the Study of Sports Psychology?

This interdisciplinary program is designed to introduce the student to the discipline of sport psychology. More specifically, it emphasizes the educational and behavioral approaches to sport psychology that can be applied in recreational, exercise, and athletic settings.

#### Why Consider a Sports Psychology Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

# PHYSICAL EDUCATION, HEALTH AND RECREATION

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- KIN 320 - Psychology of Sport
- KIN 321 - Sociology of Sport
- KIN 420 - Seminar in Sport Psychology
- KIN 421 - Psychology of Exercise
- PSY 101 - Introduction to Psychology
- Select 13 elective credits under advisement from:
  - PSY 119 - Psychology of Gender
  - PSY 210 - Cognition
  - PSY 220 - Introduction to Behavioral Neuroscience
  - PSY 230 - Lifespan Developmental Psychology
  - PSY 240 - Social Psychology
  - PSY 250 - Introduction to Abnormal Psychology
  - PSY 319 - Cognitive Neuroscience
  - PSY 322 - Motivation
  - PSY 323 - Psychopharmacology
  - PSY 332 - Adolescent Development
  - PSY 341 - Psychology and Culture
  - PSY 375 - Health Psychology
  - PSY 377 - Positive Psychology

NOTE: Kinesiology majors cannot use KIN 320 and 321 for both major and minor requirements and must select replacement courses from psychology electives (PSY 119, 210, 220, 230, 240, 250, 319, 322, 323, 332, 341, 375, 377). Kinesiology and physical education majors cannot use PSY 119, 210-250 for both major and minor requirements.

NOTE: Psychology majors cannot use PSY 210-250, 319, 322, or 323 for both major and minor requirements and should choose other courses under advisement.

## Coaching Development Courses

### CD 280 - Coaching Practicum - Basketball

A practical application of principles and techniques used in sport coaching, including program organization and administration, team building, teaching sports strategies, leadership principles related to sport performance, sport-related motor skill acquisition and performance principles, and the evaluation of coaching strategies and methods.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 2  
Grade Mode: S/U

### CD 281 - Coaching Practicum - Volleyball

A practical application of principles and techniques used in sport coaching, including program organization and administration, team building, teaching sports strategies, leadership principles related to sport performance, sport-related motor skill acquisition and performance principles, and the evaluation of coaching strategies and methods.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 2  
Grade Mode: S/U

### CD 343 - Sports Officiating/Track & Field

Officiating techniques for individual and team sports.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 2

**CD 381 - Coaching Sports: Basketball**

Practical and theoretical aspects of coaching the sport with special emphasis on advanced skill development and current methodology and resource material being utilized.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 3

**CD 383 - Coaching Sports: Track**

Practical and theoretical aspects of coaching the sport with special emphasis on advanced skill development and current methodology and resource material being utilized.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 3

**Health Education Courses**

**HLED 150 - Consumer and Environmental Health**

Analysis of media promotion of health products and services; health fraud; choosing health/medical care; investigation of environmental factors that affect human health; consumer and environmental protection agencies.

**Prerequisites & Notes:** open registration begins Phase II  
Credits: 4

**HLED 151 - Society and Drugs**

Physiological and behavioral effects of legal and illegal drugs; societal substance use and abuse; alternatives to drug use.

Credits: 2

**HLED 152 - Society and Sex**

Sociological, psychological, and biological aspects of human sexuality.

Credits: 2

**HLED 201 - Perspectives of Human Lifestyle and Wellness**

Overview and analysis of the role and place lifestyle and wellness play in society (past, present and future). Issues in health, fitness, and lifestyle choices.

Credits: 3  
GUR Attributes: SSC

**HLED 210 - Introduction to Public Health**

A survey of public health principles, history, philosophy, services, ethics, tools, systems, interventions, and applications to current events.

Credits: 4  
GUR Attributes: SSC

**HLED 250 - Health of the College Student**

Analysis of major health risks; personal health status assessment; strategies for reducing risk behaviors and promoting healthy lifestyles among college students. S/U grading.

**Prerequisites & Notes:** HLED 150, HLED 151, HLED 152 recommended  
Credits: 4  
Grade Mode: S/U

**HLED 345 - Health Promotion/Disease Prevention**

Investigation of chronic/degenerative diseases and infectious/communicable illnesses; intentional and unintentional injuries; relationship of lifestyle choices and personal beliefs to well-being.

**Prerequisites & Notes:** BIOL 101 or BIOL 205  
Credits: 4

**HLED 350 - Nutrition**

Study of functions of nutrients in the body, factors that govern nutrient requirements, and the impact of diet on health and disease.

**Prerequisites & Notes:** BIOL 101 or BIOL 205 or CHEM 115 or CHEM 121; junior standing.  
Credits: 3

**HLED 407 - Principles and Foundations of Health Education**



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History, philosophy, ethics, health behavior theories and models, credentialing, occupations, professional organizations and literature, current issues, and future trends in health education practice.

**Prerequisites & Notes:** BIOL 348  
Credits: 5

## **HLED 410 - Health Communication and Social Marketing**

Examines the key concepts and practical skills of health communication/social marketing campaigns and their application to individual, group, and community public health initiatives.

**Prerequisites & Notes:** HLED 407, HLED 460  
Credits: 4

## **HLED 420 - Epidemiology and Biostatistics**

An introduction to biostatistics and epidemiology in community health.

**Prerequisites & Notes:** Math 240 or KIN 307  
Credits: 5

## **HLED 432 - Organization and Administration of Community Health Programs**

Basic principles of organization and administration of health programs, leadership skills, and grant-writing.

**Prerequisites & Notes:** HLED 407, HLED 460, HLED 465  
Credits: 4

## **HLED 447 - Community Health**

Concept of community health, health advocacy, and cultural competence; role of government, nonprofit and private agencies; investigation of national health goals; engagement with community agencies required.

**Prerequisites & Notes:** BIOL 348 or concurrent; community health major.  
Credits: 4

## **HLED 450 - Methods and Materials in Health Education**

Principles and application of methodology for educating about health; learning styles;

development of computer-generated materials; selection, utilization, and evaluation of resources.

**Prerequisites & Notes:** HLED 447  
Credits: 5

## **HLED 455 - Health Education Grades K-8**

Instructional methods in health for grades K-8; selection, analysis and application of health education curricula and materials; education about prevention of child abuse and alcohol/drug abuse, and AIDS/HIV.

**Prerequisites & Notes:** Admission to Woodring College of Education; ELED 370 or ELED 372 or SPED 420 or PE 340.  
Credits: 2

## **HLED 460 - Program Planning and Implementation of Health Programs**

Application of processes of program development in designing health education/health promotion programs.

**Prerequisites & Notes:** HLED 407, HLED 450  
Credits: 5

## **HLED 465 - Program Evaluation and Research Design**

Basics of health education program evaluation including formative, summative, process, impact and outcome evaluation. Research design and applied methods in program evaluation.

**Prerequisites & Notes:** HLED 420  
Credits: 5

## **HLED 471 - Internship I**

Full-time supervised professional experience emphasizing functional proficiency under joint sponsorship of University and agency personnel. S/U grading.

**Prerequisites & Notes:** HLED 407, HLED 410, HLED 420, HLED 432, HLED 447, HLED 450, HLED 460, HLED 465, and proof of malpractice insurance.  
Credits: 3  
Grade Mode: S/U

## **HLED 472 - Internship II**

Full-time supervised professional experience emphasizing functional proficiency under joint sponsorship of University and agency personnel. S/U grading.

**Prerequisites & Notes:** HLED 407, HLED 410, HLED 420, HLED 432, HLED 447, HLED 450, HLED 460, HLED 465, proof of malpractice insurance.

Credits: 12  
Grade Mode: S/U

**HLED 473 - Internship III**

Full-time supervised professional experience emphasizing functional proficiency under joint sponsorship of University and agency personnel. S/U grading.

**Prerequisites & Notes:**  
HLED 407, HLED 410, HLED 420, HLED 432, HLED 447, HLED 450, HLED 460, HLED 465, and proof of malpractice insurance.

Credits: 15  
Grade Mode: S/U

## Kinesiology Courses

**KIN 301 - Survey of Kinesiology, Physical Education and Health**

Library research methods, and current issues in kinesiology, physical education and health.

**Prerequisites & Notes:** Junior status.  
Credits: 3

**KIN 304 - Prevention and Care of Athletic Injuries**

Overview of current information on the care and prevention, and immediate care, of common sports injuries.

**Prerequisites & Notes:** KIN 301, BIOL 348.  
Credits: 3

**KIN 306 - Measurement and Evaluation in Kinesiology**

Application of the theory of measurement, evaluation and appropriate statistical processes to kinesiology programs; practical experiences involving test selection, administration and

evaluation and interpretation of results in health and fitness settings.

**Prerequisites & Notes:** KIN 301 or concurrent.  
Credits: 3

**KIN 307 - Statistics in Exercise & Sport Science**

Statistical techniques utilized in the exercise and sport science fields.

**Prerequisites & Notes:** KIN 301, KIN 306; or instructor permission.  
Credits: 4

**KIN 308 - Human Growth and Motor Development**

The study of postnatal growth, maturation, and physical activity, their interrelationship with cognitive and psychosocial development, with application to health promotion and physical activity programs for children and youth.

Credits: 3

**KIN 311 - Biomechanics**

Application of basic mechanical principles to movement. Motion fundamentals, kinetics, kinematics, aerodynamics, hydrodynamics, equilibrium and external forces, rebound and spin, two-dimensional analysis, and the body as a machine; lab work is included.

**Prerequisites & Notes:** KIN 301 or concurrent; completion of Math GURs.  
Credits: 5

**KIN 312 - Functional Anatomy**

Muscles of the body that contribute to providing motion; origin, insertion, and action; principles of human movement, including the fundamental contributors to the production of muscle force and the analysis of how muscle actions contribute to achieving motion; performance analysis of basic locomotor movement, daily living activities and sports skills; lab work included.

**Prerequisites & Notes:** BIOL 348, junior status.  
Credits: 5

**KIN 315 - Fitness Instruction and Leadership**

# PHYSICAL EDUCATION, HEALTH AND RECREATION

Instructional strategies, general progressions, pedagogical principles, teaching methods, class management, peer teaching, self-evaluation strategies, and supervision strategies for teaching in various health and fitness settings.

**Prerequisites & Notes:** KIN 301, KIN 308.  
Credits: 2

## **KIN 320 - Psychology of Sport**

Psychological principles and states which are present in sporting activities, both at recreational and highly competitive levels.

**Prerequisites & Notes:** KIN 301 or PE 443, or concurrent; permission of instructor.  
Credits: 3

## **KIN 321 - Sociology of Sport**

Sociological implications of sport in contemporary American society.

**Prerequisites & Notes:** KIN 301 or PE 443 or concurrent; or permission of instructor.  
Credits: 3

## **KIN 409 - Aging and Functional Assessments**

This course will be a study of age-related physical and psychosocial changes which occur during the older adult years, their interrelationship with physical activity, with application to health promotion and disease prevention. Additionally, this course will examine the physical functional assessment methods commonly used with older adults, including those that are novel or in development. The research foundations and effectiveness of such assessments will be examined, and their appropriate utilization and interpretation will be practiced with community senior volunteers.

**Prerequisites & Notes:** KIN 301; or permission of instructor.  
Credits: 4

## **KIN 410 - Motor Control and Learning**

Principles of motor control and skill acquisition, as it relates to human movement.

**Prerequisites & Notes:** KIN 301 or PE 443; and BIOL 348.

Credits: 3

## **KIN 413 - Physiology of Exercise**

Nature of muscular, metabolic, cardiovascular and respiratory adjustments to acute and chronic exercise. The effect of training on fitness and health. Includes experimental laboratory sessions.

**Prerequisites & Notes:** KIN, PE or Community Health major status; BIOL 348; KIN 306 recommended; or permission of instructor.  
Credits: 5

## **KIN 414 - Physical Activity and Nutrition**

Current topics on exercise and nutrition; weight control, dietary supplementation and performance, fluid regulation, atherosclerosis and diabetes. Applications include metabolic balance, consumer issues such as marketing strategies, label analysis, food choices, attributes of food products such as natural, organic, fat-free, among others.

**Prerequisites & Notes:** KIN, PE or Community Health major status or permission of instructor; KIN 413, or concurrent.  
Credits: 3

## **KIN 415 - Physical Fitness Assessment and Exercise Prescription**

Examine techniques of evaluation for physical fitness with an emphasis on aerobic capacity, flexibility, and body composition; case studies; develop appropriate exercise program and re-evaluation. Includes experimental laboratory sessions and practical laboratory skills analysis.

**Prerequisites & Notes:** KIN 413.  
Credits: 5

## **KIN 416 - Strength and Conditioning Program Design**

Theoretical and practical knowledge necessary to design safe and effective training programs for optimization of health, fitness and performance.

**Prerequisites & Notes:** KIN 312.  
Credits: 3

## **KIN 420 - Seminar in Sport Psychology**

An interdisciplinary seminar (psychology/physical education) exploring core topics of sport

psychology including: evaluation of athletes, research design and strategies, personality assessment, mental and physical preparation for competition, clinical applications.

**Prerequisites & Notes:** KIN 320, KIN 321, KIN 410; and 10 credits in psychology or permission of instructor.  
Credits: 3

**KIN 421 - Psychology of Exercise**

This theory and application course will examine the relationship between personal, mental, and behavioral factors with exercise (bi-directional). Major topics will include, but are not limited to, the impact of exercise on mood states, mental health and immune function, exercise motivation, interventions and adherence.

**Prerequisites & Notes:** KIN 320  
Credits: 3

**KIN 422 - Professional Issues in Health and Exercise Settings**

The focus of this course is on professional issues relating to human resources, philosophy, finance and legal concerns with a focus on technical and professional writing.

**Prerequisites & Notes:** KIN 301 or PE 443; Senior Status.  
Credits: 3

**KIN 435 - Worksite Health Promotion**

Theoretical and practical aspects of developing and implementing worksite health promotion programs, including student team development and implementation of a community worksite based health promotion program.

**Prerequisites & Notes:** HLED 345; HLED 350 or concurrent, or KIN 414 or concurrent  
Credits: 5

**KIN 471 - Internship I**

Full-time supervised professional experience emphasizing functional proficiency under joint sponsorship of University and agency personnel. S/U grading.

**Prerequisites & Notes:** First Aid/CPR

certification, proof of malpractice insurance, and permission of instructor.

Credits: 3  
Grade Mode: S/U

**KIN 472 - Internship II**

Full-time supervised professional experience emphasizing functional proficiency under joint sponsorship of University and agency personnel. S/U grading.

**Prerequisites & Notes:** First Aid/CPR certification, proof of malpractice insurance, and permission of instructor.  
Credits: 12  
Grade Mode: S/U

**KIN 491 - Field Experience I**

Practical volunteer experience in agencies such as hospitals, physical therapy clinics, retirement or convalescent centers, worksite wellness programs, fitness facilitation, on-campus fitness programs and community sports organizations. S/U grading.

**Prerequisites & Notes:** First Aid/CPR certification, proof of malpractice insurance, and permission of instructor.  
Credits: 3  
Grade Mode: S/U

**KIN 492 - Field Experience II**

Practical volunteer experience in agencies such as hospitals, physical therapy clinics, retirement or convalescent centers, worksite wellness programs, fitness facilitation, on-campus fitness programs and community sports organizations. S/U grading.

**Prerequisites & Notes:** First Aid/CPR certification, proof of malpractice insurance, and permission of instructor.  
Credits: 3  
Grade Mode: S/U

**KIN 493 - Exercise And Sport Science Research**

Investigation of a problem conducted independently or as part of a group under faculty supervision. S/U grading.

**Prerequisites & Notes:** 15 credits completed in Exercise and Sport Science; permission of instructor.

# PHYSICAL EDUCATION, HEALTH AND RECREATION

Credits: 3

Grade Mode: S/U

## **KIN 494 - Instructional Assistant**

Assist faculty in the classroom and lab instruction. Assist faculty with activities such as lab and lecture preparation and implementation, leading classroom discussions, assisting students with class materials. Duties vary by course and instructor but the time commitment will be 8 to 10 hours per week. Repeatable to a maximum of 6 credits. S/U grading.

**Prerequisites & Notes:** Permission of instructor; a minimum grade of B in the course for which the student will be a teaching assistant.

Credits: 3

Grade Mode: S/U

## **KIN 502 - Research Topics in Human Movement and Performance**

Prereq: permission of instructor. Supervised research or study in topics related to sociology/psychology of sport, biomechanics, exercise physiology, motor learning/control, human growth and motor development, and epidemiology of physical activity. Repeatable to a maximum of 10 credits.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 1-5

## **KIN 506 - Research Design in Human Movement and Performance**

Purpose and design of various research methods used in the analysis of human movement and performance problems; survey of common statistical applications; development of research proposals.

**Prerequisites & Notes:** Graduate status; MATH 240 or KIN 307 or equivalent.  
Credits: 4

## **KIN 507 - Motor Control**

Examination of the structure and function of the human neuromuscular system, as it pertains to the production of movement.

**Prerequisites & Notes:** KIN 410 or equivalent.

Credits: 3

## **KIN 510 - Laboratory Techniques in Exercise Science**

Common laboratory techniques utilized in exercise science are presented with emphasis on body composition analysis, circulo-respiratory testing, phlebotomy/blood analysis, muscular strength and endurance, computer usage, force platform analysis, electromyography and motion capture techniques.

**Prerequisites & Notes:** KIN 311 and KIN 413 or equivalent, or permission of instructor.  
Credits: 4

## **KIN 511 - Physical Activity and Hypokinetic Diseases**

Survey of effects of physical activity on disease processes related to hypokinesia: cardiovascular disease, obesity, diabetes, osteoporosis, arthritis, inflammation, sarcopenia. Overview of physical activity needs of special populations.

**Prerequisites & Notes:** KIN 413 or permission of instructor.  
Credits: 3

## **KIN 512 - Data Processing Methods**

Principles of data processing in Kinesiology using software applications common in the field.

**Prerequisites & Notes:** KIN 311, KIN 413, KIN 510 maybe taken concurrently; or permission of instructor.  
Credits: 3

## **KIN 513 - Exercise Prescription and Programming**

Design safe and effective physical activities for selected populations in rehabilitative, preventative, and competitive programs. Medico-legal aspects and administration of exercise prescription and programming. Case studies.

**Prerequisites & Notes:** KIN 413 or permission of instructor.  
Credits: 4

## **KIN 516 - Advanced Conditioning Principles and Practice**

This course is designed to equip students with the theoretical and practical knowledge related to the most advanced and state-of-the-art methods used to maximize fitness and athletic performance.

**Prerequisites & Notes:** KIN 416 or permission of instructor.  
Credits: 3

**KIN 520 - Readings in Human Movement and Performance**

Directed readings, analysis, discussion of current literature on human movement culminating in a written paper and discussion of chosen topic.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 3

**KIN 533 - Cardiovascular Physiology**

Advanced principles and concepts regarding cardiovascular dynamics. Examines various parameters of the cardiovascular system, the relationship of resting data to exercise data, and electrocardiography.

**Prerequisites & Notes:** KIN 413 or permission of instructor.  
Credits: 3

**KIN 540 - Applied Exercise Physiology**

Selected topics in advanced exercise physiology: homeostasis, energy systems, metabolism, cardiorespiratory adjustments, hormonal control, neuromuscular physiology, nephrology, immunology, environmental responses and adaptations, by lecture and recitation.

**Prerequisites & Notes:** KIN 413 or permission of instructor.  
Credits: 4

**KIN 541 - Foundations and Ethics of Sport Psychology**

Theoretical foundations and behavioral applications of sport psychology including: history, ethics and current status of sport psychology, individual differences in sport behavior, motivation in sport, exercise psychology, social influence and sport, and the dynamics of sport groups.

**Prerequisites & Notes:** KIN 320 or permission of

instructor.  
Credits: 3

**KIN 542 - Seminar in Sport Sociology**

The study of sport as a microcosm of society with particular emphasis on the following topical areas: economics and sport, social mobility and sport, socialization, ethnic issues and sport, gender issues and sport, education and sport, sport and politics, and current social issues and sport.

**Prerequisites & Notes:** KIN 321 or permission of instructor.  
Credits: 3

**KIN 543 - Biomechanical Analysis of Human Movement**

Kinematic and kinetic analysis of human movement with focus on practical application of mechanical laws governing human motion; laboratory and computer applications.

**Prerequisites & Notes:** KIN 311, 312 or permission of instructor.  
Credits: 4

**KIN 544 - Biomechanics of the Musculoskeletal System**

Selected topics relating to biomechanics of the musculoskeletal system, muscular and skeletal system characteristics, biomechanics of the hip, knee, shoulder, foot, ankle and vertebral column.

**Prerequisites & Notes:** KIN 311, 312 or permission of instructor.  
Credits: 4

**KIN 551 - Applied Sport and Exercise Psychology**

Provides comprehensive overview of applied educational strategies and techniques in sport and exercise psychology, including performance enhancement/intervention strategies and techniques, exercise psychology, psychosocial foundations of youth sport programs and psychology of coaching.

**Prerequisites & Notes:** KIN 541.  
Credits: 4

**KIN 592 - Internship**

# PHYSICAL EDUCATION, HEALTH AND RECREATION

Supervised internship in schools, hospitals, clinics or corporation/industries as appropriate to complement the student's area of interest. Repeatable to a maximum of 6 credits. S/U grading.

**Prerequisites & Notes:** First Aid/CPR certification, proof of malpractice insurance, and permission of instructor.

Credits: 1-6

Grade Mode: S/U

## **KIN 690 - Thesis**

Repeatable to a maximum of 9 credits.

**Prerequisites & Notes:** problem approval and permission of instructor.

Credits: 1-9

## **KIN 699 - Continuous Enrollment**

S/U grading.

Credits: 2

Grade Mode: S/U

## **Physical Education Courses**

### **PE 101 - Beginning Conditioning**

Through lecture and physical practice, students will gain an understanding of the quantity and quality of exercise essential for developing and maintaining cardiorespiratory fitness, muscular fitness, and flexibility for healthy adults. S/U grading.

Credits: 1

Grade Mode: S/U

### **PE 102 - Beginning Group Fitness**

Students will learn about and engage in a variety of group fitness class formats and activities, and gain an understanding of the health and benefits of each. S/U grading.

Credits: 1

Grade Mode: S/U

### **PE 103 - Beginning Jogging**

Through lecture and physical participation, students will learn safe jogging principles and

techniques, experience improved cardiovascular fitness, and increase muscular endurance and conditioning. S/U grading.

Credits: 1

Grade Mode: S/U

### **PE 104 - Beginning Yoga**

Through lecture and physical participation, students will learn and practice yoga correctly and safely while enhancing health and well being. S/U grading.

Credits: 1

Grade Mode: S/U

### **PE 108 - Beginning Weight Training**

Through lecture and physical participation, students will learn correct lifting and spotting technique, the basic muscle groups and weight training principles, and understand types of potential injuries and injury prevention. S/U grading.

Credits: 1

Grade Mode: S/U

### **PE 120 - Beginning Social Dance**

Through lecture and physical participation, students will gain a sense of rhythm (moving in time with the music), learn basic footwork and positioning for a variety of social dances, and practice techniques for leading and following. S/U grading.

Credits: 1

Grade Mode: S/U

### **PE 122 - Beginning Folk and Country Dance**

Introduction and practice of traveling and setting steps appropriate for a wide variety of English and Scottish Folk and Country dances. Students will learn how to put together 'figures' to form a dance. S/U grading.

Credits: 1

Grade Mode: S/U

### **PE 123 - Beginning Scottish Country Dancing**

Introduction and practice to traveling and setting steps appropriate for Scottish Country dances in

both reel and strathspey time. Students will learn about the tradition from which Scottish dances and their music have come. S/U grading.

Credits: 1  
Grade Mode: S/U

**PE 124 - Intermediate Scottish Country Dance**

Introduction and practice of the more advanced Scottish Country Dance figures in both reel and strathspey time. A higher level of experience and concentration will be required of all students. S/U grading.

**Prerequisites & Notes:** PE 123

Credits: 1  
Grade Mode: S/U

**PE 132 - Beginning Badminton**

Introduction and practice of the basic skills of both singles and doubles court positioning and strategy, game playing rules, scoring and etiquette. Students will work toward proficiency in basic badminton strokes (forehand, backhand, overhead clear, forehand smash, and short serve). S/U grading.

Credits: 1  
Grade Mode: S/U

**PE 134 - Beginning Pickleball**

Introduction and practice of the basic skills of both singles and doubles court positioning and strategy, game playing rules, scoring and etiquette. Students will work toward proficiency in basic pickleball strokes (forehand, backhand, lob, drop-shot, dink, deep serve, and short serve). S/U grading.

Credits: 1  
Grade Mode: S/U

**PE 136 - Beginning Tennis**

Introduction and practice of the basic strokes (volley, serve, forehand, and backhand), rules, scoring, and court etiquette for singles and doubles tennis court positioning and playing strategy. S/U grading.

**Prerequisites & Notes:** Students must provide tennis racket and 3 good tennis balls. Court or

cross-training shoes are required.  
Credits: 1  
Grade Mode: S/U

**PE 139 - Beginning Racquetball**

Introduction and practice of the basic shots (forehand, backhand, ceiling, back-wall, corner, and kill), rules, scoring, and court etiquette for singles, cut-throat, and doubles court positioning and playing strategy. S/U grading.

Credits: 1  
Grade Mode: S/U

**PE 144 - Beginning Soccer**

Introduction, practice and demonstration of the basic soccer fundamentals (passing, controls, dribbling, heading, covering, shooting, tackling/jockeying); offensive and defensive concepts; game play, including goalkeeping; and knowledge of the rules of the game. S/U grading.

**Prerequisites & Notes:** Soccer shoes are recommended; running shoes do not provide adequate lateral support.

Credits: 1  
Grade Mode: S/U

**PE 145 - Beginning Volleyball**

Introduction and practice of the basic individual and game playing skills, including serving, passing, spiking, setting, blocking, digging and floor skills. Students will be able to demonstrate mastery of the basic team patterns and understand the rules of play both in a game and in written form. S/U grading.

**Prerequisites & Notes:** Court or cross-training shoes are required.

Credits: 1  
Grade Mode: S/U

**PE 149 - Beginning Ultimate Disc**

Introduction and practice of the basic throwing, catching, offense and defensive skills. Students will gain an understanding of the 'spirit of the game,' and knowledge of rules and strategies (stacking, flow, cutting, forcing, and defensive set-up). S/U grading.



# PHYSICAL EDUCATION, HEALTH AND RECREATION

Credits: 1  
Grade Mode: S/U

## **PE 157 - Beginning Skiing**

Introduction and practice of beginning level skiing or snowboarding maneuvering skills and techniques. Students will be graded on effort, progress, overall participation and attitude. S/U grading.

Credits: 1  
Grade Mode: S/U

## **PE 158 - Intermediate Skiing**

Introduction and practice of intermediate level skiing or snowboarding maneuvering skills and techniques. Students will be graded on effort, progress, overall participation and attitude. S/U grading.

Credits: 1  
Grade Mode: S/U

## **PE 159 - Advanced Skiing**

Introduction and practice of advanced skiing or snowboarding maneuvering skills and techniques. Students will be graded on effort, progress, overall participation and attitude. S/U grading.

Credits: 1  
Grade Mode: S/U

## **PE 165 - Beginning Handball**

Four wall handball. S/U grading.

Credits: 1  
Grade Mode: S/U

## **PE 166 - Intermediate Handball**

Demonstration and practice designed to enhance the student's skill level and dedication to the sport of four-wall handball. Exercise structures to influence focus, style, and versatility. S/U grading.

Credits: 1  
Grade Mode: S/U

## **PE 167 - Beginning Mountain Bicycling**

S/U grading.

**Prerequisites & Notes:** Students must provide their own bicycle and required helmet.

Credits: 1  
Grade Mode: S/U

## **PE 168 - Beginning Martial Arts**

Introduction and practice of the foundational principles of Judo and Ju-Jitsu as martial arts, and as they relate to fitness, safe falling, throwing techniques, controlling techniques, and ground techniques. S/U grading.

Credits: 1  
Grade Mode: S/U

## **PE 169 - Beginning Self-Defense**

Introduction and practice of personal, physical and mental self-defense skills with significant focus on the use of posture and demeanor to de-escalate potential risk. S/U grading.

Credits: 1  
Grade Mode: S/U

## **PE 170 - Beginning Sailing**

The purpose of the course is to teach students the basics of safe and effective sailing for life long health and enjoyment. Students will learn how to prepare for sailing and safely perform basic sailing skills. S/U grading.

Credits: 1  
Grade Mode: S/U

## **PE 171 - Beginning Sailboat Racing**

Introduction to collegiate style sailboat racing, including: strategy, boat handling and tactics. Students will receive lectures, demonstrations and use on the water drills to develop the skills and concepts involved in racing. Emphasis on practical application, with racing on the water occurring as often as safe and practical. S/U grading.

**Prerequisites & Notes:** PE 170 or PE 179; or basic skippering skills.

Credits: 1  
Grade Mode: S/U

## **PE 175 - Beginning Windsurfing**

The purpose of the course is to teach students the basics of safe and effective windsurfing for life-long health and enjoyment. Students will learn how to prepare for windsurfing and safely perform basic windsurfing skills. S/U grading.

Credits: 1  
Grade Mode: S/U

**PE 177 - Beginning Windsurfing**

Course provides an introduction to the basic skills of Kayak Touring. Including boat handling, rescues, navigation, weather, safety tactics, and tide forecasting and trip planning. Instructional emphasis on the water paddling skills. S/U grading.

Credits: 1  
Grade Mode: S/U

**PE 179 - Intermediate Sailing**

Course provides intermediate skills through the use of multiple designs of boats. Techniques for control and efficiency are examined as students learn to sail more complex and challenging boats. With more sophisticated boats and rig adjustments a more sophisticated understanding of the hydro and aerodynamic principals can be gained. S/U grading.

**Prerequisites & Notes:** PE 170 or instructor permission.

Credits: 1  
Grade Mode: S/U

**PE 181 - Intercollegiate Basketball**

This course is designed for the Varsity Athletes. Each student is required to attend regularly scheduled practices, individual meetings, team meetings, conditioning, games/events, and team activities. Repeatable up to 10 credits. S/U grading.

**Prerequisites & Notes:** Instructor permission.  
Credits: 2  
Grade Mode: S/U

**PE 183 - Intercollegiate Track and Field**

This course is designed for the Varsity Athletes. Each student is required to attend regularly scheduled practices, individual meetings, team meetings, conditioning, games/events, and team activities. Repeatable up to 10 credits. S/U grading.

**Prerequisites & Notes:** Instructor permission.

Credits: 2  
Grade Mode: S/U

**PE 185 - Intercollegiate Golf**

This course is designed for the Varsity Athletes. Each student is required to attend regularly scheduled practices, individual meetings, team meetings, conditioning, games/events, and team activities. Repeatable up to 10 credits. S/U grading.

**Prerequisites & Notes:** Instructor permission.  
Credits: 2  
Grade Mode: S/U

**PE 189 - Intercollegiate Cross Country**

This course is designed for the Varsity Athletes. Each student is required to attend regularly scheduled practices, individual meetings, team meetings, conditioning, games/events, and team activities. Repeatable up to 10 credits. S/U grading.

**Prerequisites & Notes:** Instructor permission.  
Credits: 2  
Grade Mode: S/U

**PE 190 - Intercollegiate Rowing**

This course is designed for the Varsity Athletes. Each student is required to attend regularly scheduled practices, individual meetings, team meetings, conditioning, games/events, and team activities. Repeatable up to 10 credits. S/U grading.

**Prerequisites & Notes:** Instructor permission.  
Credits: 2  
Grade Mode: S/U

**PE 192 - Intercollegiate Volleyball**

This course is designed for the Varsity Athletes. Each student is required to attend regularly scheduled practices, individual meetings, team meetings, conditioning, games/events, and team activities. Repeatable up to 10 credits. S/U grading.

**Prerequisites & Notes:** Instructor permission.  
Credits: 2  
Grade Mode: S/U

# PHYSICAL EDUCATION, HEALTH AND RECREATION

## **PE 193 - Intercollegiate Soccer**

This course is designed for the Varsity Athletes. Each student is required to attend regularly scheduled practices, individual meetings, team meetings, conditioning, games/events, and team activities. Repeatable up to 10 credits. S/U grading.

**Prerequisites & Notes:** Instructor permission.  
Credits: 2  
Grade Mode: S/U

## **PE 194 - Intercollegiate Softball**

This course is designed for the Varsity Athletes. Each student is required to attend regularly scheduled practices, individual meetings, team meetings, conditioning, games/events, and team activities. Repeatable up to 10 credits. S/U grading.

**Prerequisites & Notes:** Instructor permission.  
Credits: 2  
Grade Mode: S/U

## **PE 340 - Block I: Elementary Physical Education Methods**

Incorporates pedagogical principles and instructional techniques in physical education based on the characteristics and needs of elementary students with emphasis on rhythms and dance, fundamental movement, and gymnastics.

**Prerequisites & Notes:** Physical Education and Health P-12 pre-major status.  
Credits: 5

## **PE 341 - Block II: Elementary Physical Education Methods**

Incorporates pedagogical principles and instructional techniques in physical education based on the characteristics and needs of elementary students with emphasis on fitness development, fundamental skills, sport-related activities and contemporary recreational activities.

**Prerequisites & Notes:** PE 340, P-12 PE and Health major  
Credits: 5

## **PE 341P - Elementary Physical Education Practicum**

Observing/assisting/teaching in an elementary school setting. Includes weekly seminar which covers: academic learning time, student success rates, feedback, professional growth.

**Prerequisites & Notes:** PE 341, or concurrent.  
Credits: 3

## **PE 345 - Physical Education for Elementary School**

Physical activities in fundamental skill development, fitness, creative movement, rhythms and gymnastics for elementary age. Includes methods of teaching and developmental characteristics of children.

**Prerequisites & Notes:** Admission to Woodring College of Education; EDUC 301 or ELED 301 or SPED 301.  
Credits: 3

## **PE 440 - Block III: Middle School Physical Education Methods**

Course incorporates pedagogical principles, instructional methodology, planning and implementation of instructional programs for middle school level students. Curricular emphasis will focus upon skill acquisition and lead up to activities in the following areas: team building, loco-motor/fitness, striking w/hands & feet, rhythmic movements and recreational activities.

**Prerequisites & Notes:** PE 341P.  
Credits: 5

## **PE 440P - Middle School Physical Education Practicum**

Observing/assisting/teaching in a middle school setting. Includes weekly seminar which covers: characteristics of middle school students, research on effective teaching, developing routines, class management, skill progressions and sequencing, pre-assessment, unit planning, assessment.

**Prerequisites & Notes:** PE 341P; PE 440 or concurrent.  
Credits: 3

**PE 441 - Block IV: High School Physical Education Methods**

Course incorporates pedagogical principles, instructional methodology, planning and implementation of instructional programs for high school level students. Curricular emphasis will focus upon tactical games and lifetime fitness in the following areas: team building, multi-skill activities, group exercise, striking w/implements, rhythmic movements, content integration and recreational activities.

**Prerequisites & Notes:** PE 440P  
Credits: 5

**PE 441P - High School Health and Physical Education Practicum**

Observing/assisting/teaching health and physical education in a high school setting. Includes weekly seminar which covers characteristics of high school students, curriculum development for health and physical education, assessment and transitioning from student to student teacher.

**Prerequisites & Notes:** PE 440P  
Credits: 3

**PE 442P - Practicum in Physical Education**

Individualized practicum in teaching physical education activities. S/U grading.

**Prerequisites & Notes:** PE341P.  
Credits: 2  
Grade Mode: S/U

**PE 443 - Adapted Physical Education Methods & Practicum**

Course incorporates library research methods related to specific disabilities and APA research writing skills, pedagogical principles, instructional methods, and planning and implementation of instructional interventions for individuals with disabilities in the educational setting. Includes field based experiences working with adapted physical education/recreational settings.

**Prerequisites & Notes:** PE 341.  
Credits: 3

**Recreation Courses**

**RECR 105 - Challenge Facilitation I**

Course provides an overview of the theory and application of adventure based programming. Students will be introduced to safety practices, goal setting, framing and debriefing both group and individual challenge activities. Students will practice leading others in challenge learning activities. S/U grading.

Credits: 2  
Grade Mode: S/U

**RECR 201 - Foundations of Recreation and Leisure**

Professional course dealing with the history, philosophy, present status, future goals, and challenges of leisure and the recreation service professions.

Credits: 4

**RECR 271 - Introduction to Community Recreation and Leisure Services**

Community-based recreation service agencies: philosophies, functions, services, personnel and facilities. Emphasis on the diversity and inter-relatedness of community recreation service agencies.

**Prerequisites & Notes:** RECR 201  
Credits: 3

**RECR 272 - Introduction to Outdoor Recreation**

Introduction to the major professional components of the outdoor recreation field: interpretive services, camping, resource management, programming, private recreation and tourism. Focuses on trends, programs and related professional issues.

**Prerequisites & Notes:** RECR 201  
Credits: 3

**RECR 274 - Introduction to Therapeutic Recreation**

Introduction to the principles and practices of therapeutic recreation. Includes history,

# PHYSICAL EDUCATION, HEALTH AND RECREATION

philosophy, and trends and issues. Also presents an overview of consumer groups associated with therapeutic recreation.

**Prerequisites & Notes:** RECR 201

Credits: 4

## **RECR 275 - Professional Practicum and Seminar**

Career opportunities in leisure services investigated through organized visits to recreation and leisure agencies. Includes class meetings to explore professional development. S/U grading.

**Prerequisites & Notes:** RECR 201

Credits: 1

Grade Mode: S/U

## **RECR 276 - Introduction to Program Leadership**

Leading and processing recreation experiences in community, outdoor and therapeutic settings that promote individual and social well being.

**Prerequisites & Notes:** RECR 201

Credits: 2

## **RECR 279 - Introduction to Tourism**

Introduction to the major professional components of tourism: tour development, guiding, visitor services, resort management, and event planning. Also examines history of travel, types of travelers, motives of travel, niche markets, and current trends.

**Prerequisites & Notes:** RECR 201

Credits: 3

## **RECR 301 - Work and Leisure Through the Ages**

A historical survey of the evolution of work and leisure from antiquity to the present, examining developments from social, cultural, political, and economic perspectives. The course also explores how work and leisure have affected societies throughout history. The central goal of the course is to use the past as a means for students to examine beliefs, values, and practices regarding work and leisure in the present and the future.

**Prerequisites & Notes:** any 100-level history

class or PSY 101, SOC 221, SOC 251, SOC 255, SOC 260, SOC 268, SOC 269

Credits: 4

GUR Attributes: HUM

## **RECR 370 - Outdoor Program Development**

Methods and techniques in the organization, implementation and evaluation of recreation programs in outdoor settings.

**Prerequisites & Notes:** Phase I Recreation majors or permission of instructor.

Credits: 4

## **RECR 372 - Management of Recreation and Leisure Services**

Entry-level administrative skills associated with managing personnel and organizational resources within parks and recreation systems.

**Prerequisites & Notes:** Phase I Recreation majors or permission of instructor.

Credits: 4

## **RECR 373 - Recreation Programming**

Systems approach to programming methods for individual and group program planning in all parks and recreation settings.

**Prerequisites & Notes:** Phase I Recreation majors or permission of instructor.

Credits: 4

## **RECR 376 - Therapeutic Recreation Program Design**

Methods and techniques in the organization, implementation and evaluation of recreation programs for special populations: needs assessment, activity modification, adaptive equipment, physical and behavioral management and intervention techniques.

**Prerequisites & Notes:** Phase I Recreation majors or permission of instructor.

Credits: 4

## **RECR 378 - Human Relations: Concepts and Skills**

Knowledge of human relations concepts and development of basic helping skills needed by individuals working in therapeutic relationships in

outdoor, community, tourism, and institutional settings. Designed to meet certification requirements for therapeutic recreation.

**Prerequisites & Notes:** Phase I Recreation majors or permission of instructor.

Credits: 4

**RECR 379 - Foundations of Ecotourism**

Course will introduce students to the history, concepts, principles, marketing, and planning of ecotourism activities. The focus will be on tours and activities that promote cultural and environmental awareness, community empowerment, and local economic benefits. Emphasis will be on non-western cultures.

**Prerequisites & Notes:** Phase I Recreation majors or permission of instructor.

Credits: 4

**RECR 380 - Therapeutic Recreation Principles, Practices and Techniques**

Concentrated analysis of the process and practice of therapeutic recreation. Includes medical terminology, disabling conditions, adaptations, models of health care, rehabilitation techniques, and further examination of the foundations and development of therapeutic recreation. Includes one hour arranged.

**Prerequisites & Notes:** Phase I Recreation majors or appropriate experience; written permission.

Credits: 5

**RECR 385 - Leisure and Aging**

An overview of aging with respect to leisure services. Examines physical, social, psychological, economic and political aspects of aging as they relate to designing recreation programs and leisure opportunities.

**Prerequisites & Notes:** RECR 201 or instructor permission

Credits: 4

**RECR 421 - Therapeutic Recreation Trends and Issues**

Analysis of trends and issues affecting the profession of therapeutic recreation.

**Prerequisites & Notes:** Phase III Recreation majors or appropriate experience; written permission.

Credits: 3

**RECR 444 - Recreation Budgeting and Finance**

Principles and techniques of obtaining, budgeting and managing financial resources in parks and recreation agencies.

**Prerequisites & Notes:** Phase III Recreation majors or permission of Instructor.

Credits: 4

**RECR 450 - Recreation Program Evaluation**

Quantitative and qualitative methods of program evaluation emphasizing experiential learning, questionnaire design and survey research, interviews, observations, and consensus techniques.

**Prerequisites & Notes:** Phase III Recreation majors or permission of Instructor.

Credits: 4

**RECR 470 - Adventure-Based Programming**

Methods and techniques in the assessment, design, implementation and evaluation of adventure programs in enrichment and therapeutic recreation settings.

**Prerequisites & Notes:** Phase III Recreation majors or permission of instructor.

Credits: 3

**RECR 471 - Internship I**

Full-time supervised professional experience emphasizing functional proficiency under joint sponsorship of University and agency personnel. S/U grading.

**Prerequisites & Notes:** Phase II Recreation majors.

Credits: 3

Grade Mode: S/U

**RECR 472 - Internship II**

Full-time supervised professional experience emphasizing functional proficiency under joint sponsorship of University and agency personnel.

# PHYSICAL EDUCATION, HEALTH AND RECREATION

**Prerequisites & Notes:** Phase II Recreation  
Majors  
Credits: 12  
Grade Mode: S/U

majors.  
Credits: 4

## **RECR 473 - Internship III**

Full-time supervised professional experience emphasizing functional proficiency under joint sponsorship of University and agency personnel.

**Prerequisites & Notes:** Phase II Recreation  
majors.  
Credits: 15  
Grade Mode: S/U

## **RECR 475 - Community Development and Leisure Services**

An analysis of community development from the context of recreation and leisure services. Emphasis is placed on the roles and relationships among community members and recreation and leisure services for the purposes of promoting the health and well-being of communities.

**Prerequisites & Notes:** Phase III Recreation  
majors or permission of instructor.  
Credits: 3

## **RECR 479 - Ecotourism: Principles and Practices**

Provides an understanding of the principles and practices of ecotourism. Examines theory, practice, history, terminology and issues in ecotourism planning and management. Emphasizes sustainable practices as they relate to traveler education, tour planning, and destination development.

**Prerequisites & Notes:** RECR 379 or permission of instructor.  
Credits: 3

## **RECR 480 - Leisure and Society**

A senior capstone course that builds on general education and foundations of professional education. Goal is to synthesize diverse strands of theory and practice into an integrated understanding of recreation and leisure in modern society, with implications for professional service.

**Prerequisites & Notes:** Phase III Recreation

# Political Science

## Introduction

Politics and government affect the lives of all of us. What we do, and what we think, is affected by the decisions and actions of state, local and national governmental institutions and political leaders. The objectives and policies of foreign countries also can affect our daily lives, particularly during periods of international tension and war.

Political science is one of the oldest fields of academic inquiry. Social ideals and their realization through law were systematically studied in ancient Greece. In an increasingly interdependent world, the study of politics and government has flourished as the relations between persons, groups and nations have become more complex, and questions of freedom and authority have challenged every citizen. Modern political science is equally concerned with questions of political philosophy and with the pursuit of social scientific research. These concerns are reflected in a broad and diverse curriculum.

The political science faculty is committed to the belief that understanding politics and government is essential to a well-educated person, vital to democratic citizenship, indispensable to effective public service, and critical to the maintenance and ethical progress of a free society.

The political science curriculum prepares students for careers in public service-related occupations in both government and business. Many students majoring in political science go on to law school, graduate school and into the professions; many others who are not majors take political science courses as an essential part of their liberal arts education.

## Faculty

**SARA J. WEIR** (1989) Chair. Associate Professor. BA, MA, Ball State University; PhD, University of Washington.

**AMIR ABEDI** (2003) Associate Professor. BA, University of Hanover, Germany; MA, PhD, University of British Columbia.

**DONALD K. ALPER** (1971) Professor. BA, MA, California State University- Long Beach; PhD, University of British Columbia.

**BIDISHA BISWAS** (2006) Associate Professor. BA, Hindu College, University of New Delhi; MA, PhD, University of Maryland.

**PAUL CHEN** (2002) Associate Professor. BA, University of California-Berkeley; JD, Southwestern University School of Law; MA, Biola University; MA, PhD, University of Southern California.

**SHIRIN DEYLAMI** (2008) Assistant Professor BA University of California, Santa Cruz; MA University of North Carolina; PhD University of Minnesota

**TODD A. DONOVAN** (1991) Professor. BA, California State University, Sacramento; MA, PhD, University of California-Riverside.

**CYNTHIA HORNE** (2006) Associate Professor. BA, Dartmouth College; MS, Georgetown University; PhD, University of Washington.

**VICKI HSUEH** (2003) Associate Professor. BA, Williams College; MA, PhD, Johns Hopkins University.

**VERNON D. JOHNSON** (1986) Professor. BA, Akron University; MA, PhD, Washington State University.

**KRISTEN D. PARRIS** (1991) Associate Professor. BA, MA, PhD, Indiana University.

**DEBRA J. SALAZAR** (1990) Professor. BS, University of California-Berkeley; MS, PhD, University of Washington.

**SARA SINGLETON** (2001) Associate Professor. BA, MA, PhD, University of Washington.

The department's faculty and staff invite questions about the program and its career potential. Persons seeking more information should visit the department in Arntzen Hall or call 360-650-3469. Written inquiries should be directed to the Department of Political Science, Western Washington University, Bellingham, Washington 98225-9082.



## Declaration Process

Students are eligible to declare the political science major and any of the majors combined with political science if they have completed any three of the following core courses with an average grade of 2.7 or above: PLSC 250, 261, 271, 291, or the equivalent course(s) at another college or university. Due to high student demand and limited capacity, immediate access to specific courses cannot be guaranteed. Priority is given to seniors and juniors who need courses to graduate. Students who have no transfer credits for political science course work, stop by the political science department office, Arntzen Hall 415, with an unofficial Western Washington University transcript showing the three completed courses from the list above. If you have transfer credits for political science coursework from another institution, also bring an unofficial transcript from that institution showing the political science courses completed.

## Other Departmental Information

### *The Curricula*

The political science department offers several curricula leading to the Bachelor of Arts, the Master of Arts, and the Master of Arts option in political science/environmental studies. These curricula are listed below, and their details are set forth following the list of the department faculty.

- Bachelor of Arts
  - *Majors*: political science, political science/economics, politics/philosophy/economics, political science/social studies.
  - *Minors*: political science, Canadian-American studies, East Asian studies
- Master of Arts in Political Science
- Master of Arts in Political Science (Environmental Studies)

### *Mid-Program Checkpoint*

To finish the political science major in a timely fashion, students should try, by the end of their sophomore year, to complete the core courses (and necessary prerequisites) needed for the advanced courses in the three fields within the major. The core courses for the three fields are:

- *American Politics and Public Policy*: PLSC 250
- *Political Theory*: PLSC 261
- *International and Comparative Politics*: PLSC 271 or PLSC 291

### *Internships*

Students are encouraged to obtain internships in state, local or national government agencies, political parties and interest groups. Initial contact with the intern coordinator should usually be at least one quarter in advance of registration if the student is interested in a local internship. In the case of state and federal agencies, longer lead times are necessary, and contact with the intern coordinator should be at least two quarters in advance of registration. Credit may be divided over two quarters where the internship placement requires a commitment of more than 10 weeks. No more than 10 credits of internship and independent study, combined, may be counted toward the major.

To qualify for an internship, requirements are:

- Completion of the core field requirements for the political science major (PLSC 250, PLSC 261, PLSC 271 or PLSC 291)
- Completion of at least one advanced course in the field of study to which the internship most closely relates
- Acceptability to the agency

### *Independent Study*

Students wishing to pursue research and directed reading in areas of the discipline where they have had prior course work may apply to do independent study projects. Enrollment is with the consent of the instructor and

the chair. No more than 10 credits of independent study and internship, combined, may be counted toward the major.

## Graduate Study

For concentrations leading to the Master of Arts degree, see the *Graduate School* section of this catalog.

## Bachelor of Arts

### Economics/Political Science, BA (see Economics Department)

Economics/Political Science, BA (see Economics Department)

### Political Science, BA

Department of Political Science, College of Humanities and Social Sciences

#### 60 credits

#### Introduction/What is the Study of Political Science?

Political Science is one of the oldest fields of academic inquiry. Social ideals and their realization through law were systematically studied in ancient Greece. In an increasingly interdependent world, the study of politics and government has flourished as the relations between persons, groups and nations have become more complex, and questions of freedom and authority have challenged every citizen. Modern Political Science is equally concerned with questions of political philosophy and with the pursuit of social scientific research. These concerns are reflected in a broad and diverse curriculum.

The Political Science faculty is committed to the belief that understanding politics and government is essential to a well-educated person, vital to democratic citizenship, indispensable to effective public service, and critical to the maintenance and ethical progress of a free society.

#### Why Consider a Political Science Major?

The Political Science curriculum prepares students for careers in public service-related occupations in both government and business. Many students majoring in Political Science go on to law school, graduate school and into related professions.

Contact Information		
Political Science Department Chair	Department Manager	Program Coordinator
Sara Weir	Joan Blackwell	Peggy Warner
Arntzen Hall 415	Arntzen Hall 415	Arntzen Hall 415
360-650-2912	360-650-3469	360-650-3469
Sara.Weir@wwu.edu	Joan.Blackwell@wwu.edu	Peggy.Warner@wwu.edu

Sample Careers
Campaign Manager   Politician   Lobbyist   Attorney   Public Relations Specialist   FBI/CIA Agent   Consumer Advocate   Journalist   Labor Relations Specialist   City Manager   Author   Urban Planner

Major/Career Resources
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>

#### How to Declare (Admission and Declaration Process):

Declaration of Major

# POLITICAL SCIENCE

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. For more information go to the

### Requirements

PLSC 101, 435, 443, 444, 447, 448, and 491 credits apply toward the major but do not count in any field. No more than 10 credits of internship or independent study may be counted toward the major.

- Students select a first, second and third field of study from the three fields listed below
  - American Politics and Public Policy
  - Political Theory
  - International and Comparative Politics
- Core courses in each of the three fields are required. They are:
  - PLSC 250 for American Politics and Public Policy
  - PLSC 261 for Political Theory
  - PLSC 271 or PLSC 291 for International and Comparative Politics
- In the three fields, the students must complete:
  - 15 credits in the first field plus required core course
  - 10 credits in the second field plus required core course
  - 4 credits in the third field plus required core course
  - One course from:  
PLSC 431, PLSC 432, PLSC 433, PLSC 434

Courses in the three fields are organized as follows:

#### □ *American Politics and Public Policy:*

- PLSC 250 - The American Political System
- PLSC 311 - Introduction to Law and Judicial Process
- PLSC 313 - Law and Society
- PLSC 314 - U.S. Supreme Court
- PLSC 345 - Women and Politics
- PLSC 346 - Politics of Inequality
- PLSC 347 - Race, Politics and Public Policy
- PLSC 353 - State and Local Politics
- PLSC 366 - Research in Politics
- PLSC 414 - Constitutional Law I: National Powers
- PLSC 415 - Constitutional Law II: Individual Rights
- PLSC 420 - Environmental Politics
- PLSC 421 - Lesbian, Gay, Bisexual, Transgendered Politics
- PLSC 423 - The American Presidency
- PLSC 427 - Policy-Making and Policy Analysis
- PLSC 431 - Senior Seminar in American Politics and Public Policy
- PLSC 449 - Politics and Social Change
- PLSC 450 - Parties, Campaigns and Elections
- PLSC 467 - Philosophical and Ethical Issues in Law
- PLSC 489 - Managing An International Ecosystem Wi

#### □ *Political Theory:*

- PLSC 261 - Introduction to Political Theory
- PLSC 361 - Classical Political Thought
- PLSC 362 - Political Theory: Renaissance and Modern
- PLSC 432 - Senior Seminar - Political Theory

- PLSC 462 - The Rise of Modern Political Economy
- PLSC 463 - American Political Thought
- PLSC 464 - Contemporary Political Theory
- PLSC 469 - Feminist Political Theory
- PLSC 480 - Politics, Government and Religion
- PLSC 493 - Issues in Political Theory
- *International and Comparative Politics:*
  - PLSC 271 - Introduction to International Relations
  - PLSC 291 - Introduction to Comparative Politics
  - PLSC 301 - The British Parliamentary System
  - PLSC 302 - Western Europe
  - PLSC 307 - East Asia
  - PLSC 308 - African Political Systems
  - PLSC 310 - The International Relations of East Asia
  - PLSC 312 - International Relations of South Asia
  - PLSC 366 - Research in Politics
  - PLSC 370 - Global Issues in International Politics
  - PLSC 372 - International Political Economy
  - PLSC 376 - American Foreign Policy
  - PLSC 390 - The Politics of Development
  - PLSC 399 - The Politics of Democratization
  - PLSC 402 - Regional European Society and Politics
  - PLSC 403 - The European Union and the Process of European Integration
  - PLSC 406 - Canadian Government and Politics
  - PLSC 430 - Modern Chinese Politics
  - PLSC 433 - Senior Seminar in Comparative Politics
  - PLSC 434 - Senior Seminar in International Politics
  - PLSC 436 - Managing Environmental Commons
  - PLSC 453 - Comparative Electoral Systems

#### Departmental Honors

##### *Entrance requirements*

Students must satisfy the following eligibility requirements **prior** to registration for PLSC 496 Honors Tutorial.

The student must:

- Be a declared political science major with senior standing
- Have a 3.50 GPA in all upper-division political science courses
- Have completed **both** of the following:
  - Core requirements for the major (PLSC 250, PLSC 261, and PLSC 271 or 291)
  - Credit requirements in the area most closely related to the thesis topic
- Have completed **one** of the following:
  - Two years of foreign language with a B (3.0) or better GPA; the Honors advisor, at his or her discretion, may choose to waive this requirement for students who demonstrate a satisfactory reading knowledge of the language
  - PLSC 366 Research in Politics, or an equivalent class in social statistics under advisement, and earn a grade of B (3.0) or better
  - Submit the completed Honors Contract to the political science department office with proper faculty signatures

##### *Completion Requirements*

To graduate with honors in political science the student must:

# POLITICAL SCIENCE

- Maintain a 3.50 grade point average in all upper-division political science courses
- Complete 4-10 credits of PLSC 496 Honors Tutorial over two quarters under the supervision of a faculty thesis advisor
- Give an oral presentation of the thesis in arrangement with the faculty thesis advisor
- Submit a copy of the honors thesis to the political science department office before the final grade is assigned

## Political Science/Social Studies, BA

Department of Political Science, College of Humanities and Social Sciences

### 92-94 credits

#### Introduction/What is the Study of Political Science/Social Studies?

Political Science is one of the oldest fields of academic inquiry. Social ideals and their realization through law were systematically studied in ancient Greece. In an increasingly interdependent world, the study of politics and government has flourished as the relations between persons, groups and nations have become more complex, and questions of freedom and authority have challenged every citizen. Modern political science is equally concerned with questions of political philosophy and with the pursuit of social scientific research. These concerns are reflected in a broad and diverse curriculum.

The Political Science faculty are committed to the belief that understanding politics and government is essential to a well-educated person, vital to democratic citizenship, indispensable to effective public service, and critical to the maintenance and ethical progress of a free society.

#### Why Consider a Political Science/Social Studies Major?

The Political Science curriculum prepares students for careers in public service-related occupations in both government and business. Many students majoring in Political Science go on to law school, graduate school and into the professions.

Secondary Education students who wish to be endorsed in Social Studies may choose this major. However, the Political Science/Social Studies degree does not require that a student pursue a teaching certificate. To receive a recommendation for state of Washington certification, students must complete the "teacher certification" program, including the contents method course SEC 426, which is offered by the Department of Secondary Education as 1) part of the undergraduate Bachelor of Arts degree, or 2) as a post-baccalaureate program, or 3) as a part of the Master's in Teaching degree. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements. Completion of this combined major leads to endorsement in social studies.

Contact Information		
<b>Political Science Department Chair</b> Sara Weir Arntzen Hall 415 360-650-2912 Sara.Weir@wwu.edu	<b>Department Manager</b> Joan Blackwell Arntzen Hall 415 360-650-3469 Joan.Blackwell@wwu.edu	<b>Program Coordinator</b> Peggy Warner Arntzen Hall 415 360-650-3469 Peggy.Warner@wwu.edu
<b>Secondary Education Information</b> Janna Cecka Miller Hall 401C 360-650-3347 <a href="http://www.wce.wwu.edu/sec">http://www.wce.wwu.edu/sec</a>	<b>Teacher Education Admissions</b> Miller Hall 214 360-650-3313 <a href="http://www.wce.wwu.edu/admiss">http://www.wce.wwu.edu/admiss</a>	

#### Sample Careers

Teacher - Secondary Education | Attorney | Consumer Advocate | City Manager | Politician | Public Relations Specialist | Journalist | Author | Lobbyist | FBI/CIA Agent | Labor Relations Specialist | Urban Planner

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Declaration of Major

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better

## Requirements

- ENVS 204 - Human Geography
- HIST 103 - Introduction to American Civilization: American History to 1865
- HIST 104 - Introduction to American Civilization: American History Since 1865
- HIST 121 - World History to 500
- HIST 123 - World History, 1500 to the Present
- HIST 391 - History of the Pacific Northwest
- PLSC 250 - The American Political System
- One course from:
  - ANTH 201 - Introduction to Cultural Anthropology
  - SOC 221 - Introduction to Population Issues
  - SOC 251 - Sociology of Deviant Behavior
  - SOC 255 - Social Organization of Criminal Justice
  - SOC 260 - The Family in Society
  - SOC 268 - Gender and Society
- One course from:
  - ECON 206 - Introduction to Microeconomics
  - ECON 446 - Economics for the Teacher (preferred)
- One course from:
  - ECON 207 - Introduction to Macroeconomics
  - ECON 447 - Methods for Teaching About the National Economy in the Public Schools (preferred)
- One course from:
  - ENVS 221 - Geographic Information Systems Survey  
or two additional geography credits
- 18 additional credits from:
  - PLSC 311 - Introduction to Law and Judicial Process
  - PLSC 313 - Law and Society
  - PLSC 314 - U.S. Supreme Court
  - PLSC 345 - Women and Politics
  - PLSC 346 - Politics of Inequality
  - PLSC 347 - Race, Politics and Public Policy
  - PLSC 353 - State and Local Politics
  - PLSC 414 - Constitutional Law I: National Powers
  - PLSC 415 - Constitutional Law II: Individual Rights
  - PLSC 420 - Environmental Politics

## POLITICAL SCIENCE

- PLSC 421 - Lesbian, Gay, Bisexual, Transgendered Politics
- PLSC 423 - The American Presidency
- PLSC 427 - Policy-Making and Policy Analysis
- PLSC 431 - Senior Seminar in American Politics and Public Policy
- PLSC 449 - Politics and Social Change
- PLSC 450 - Parties, Campaigns and Elections
- PLSC 467 - Philosophical and Ethical Issues in Law
- PLSC 489 - Managing An International Ecosystem Wi
- 8 credits from:
  - PLSC 261 - Introduction to Political Theory
  - PLSC 361 - Classical Political Thought
  - PLSC 362 - Political Theory: Renaissance and Modern
  - PLSC 432 - Senior Seminar - Political Theory
  - PLSC 462 - The Rise of Modern Political Economy
  - PLSC 463 - American Political Thought
  - PLSC 464 - Contemporary Political Theory
  - PLSC 469 - Feminist Political Theory
  - PLSC 480 - Politics, Government and Religion
  - PLSC 493 - Issues in Political Theory
- 8 credits from:
  - PLSC 271 - Introduction to International Relations
  - PLSC 291 - Introduction to Comparative Politics
  - PLSC 301 - The British Parliamentary System
  - PLSC 302 - Western Europe
  - PLSC 307 - East Asia
  - PLSC 308 - African Political Systems
  - PLSC 310 - The International Relations of East Asia
  - PLSC 370 - Global Issues in International Politics
  - PLSC 372 - International Political Economy
  - PLSC 376 - American Foreign Policy
  - PLSC 390 - The Politics of Development
  - PLSC 399 - The Politics of Democratization
  - PLSC 402 - Regional European Society and Politics
  - PLSC 403 - The European Union and the Process of European Integration
  - PLSC 406 - Canadian Government and Politics
  - PLSC 430 - Modern Chinese Politics
  - PLSC 433 - Senior Seminar in Comparative Politics
  - PLSC 434 - Senior Seminar in International Politics
  - PLSC 436 - Managing Environmental Commons
  - PLSC 453 - Comparative Electoral Systems
- Balance of credits in political science electives

### **Politics/Philosophy/Economics, BA (see Economics Department)**

Politics/Philosophy/Economics, BA (see Economics Department)

## Master of Arts

### Political Science, Environmental Studies, Thesis, MA (In Moratorium)

This program is no longer accepting new students. For more information contact Department of Political Science, Western Washington University, 516 High Street, Bellingham, WA 981225-9082, 360-650-3469; Vernon.Johnson@wwu.edu.

*College of Humanities and Social Sciences*

### Graduate Faculty

**Abedi, Amir**, PhD, comparative politics, European politics, parties and party systems.

**Alper, Donald K.**, PhD, Canadian-politics, Canada-U.S. relations, American politics.

**Biswas, Bidisha**, PhD, international relations, ethnic and civic conflicts, terrorism, diaspora politics.

**Chen, Paul**, PhD, law, courts, politics and society, U.S. constitutional law, the Supreme Court.

**Deylami, Shirin**, PhD. Islamic thought, theories of globalization, religion and politics, contemporary political thought

**Donovan, Todd A.**, PhD, American, state and local, elections and representation.

**Horne, Cynthia**, PhD, international political economy, comparative political economy, international relations, comparative politics, post-Soviet politics and economics.

**Hsueh, Vicki**, PhD, political theory, history of political thought, race and ethnicity, colonialism and post-colonialism.

**Johnson, Vernon D.**, PhD, Politics of development, African politics, race and public policy.

**Parris, Kristen D.**, PhD, comparative politics, East Asian politics, development.

**Salazar, Debra J.**, PhD, environmental politics, social movements, statistics.

**Singleton, Sara**, PhD, American politics, environmental politics, public policy.

**Weir, Sara J.**, PhD, American politics, public policy, gender issues.

Curriculum Coordinator: Dr. Sara Singleton, Political Science, Arntzen Hall 420.

### Program Description

The political science/environmental studies curriculum is a joint offering of the Political Science Department and Huxley College of the Environment. The program emphasizes environmental policy and especially the political, economic and social factors which affect environmental policy-making processes.

### Admission and prerequisites

Admission requirements and prerequisites are the same as for the MA in Political Science program with additional consideration given to applicants who have a background in environmental studies, natural science, or a related field.

### Application Information

**Admit Quarter:** New students will be admitted to this program fall quarter only. Admission decisions normally will be made no later than March 15. Students should specify their potential thesis topics, and up to two prospective faculty advisors.

**Deadlines:** To ensure consideration for fall quarter, complete applications must be received by February 1.

**Materials supporting graduate applications:** All applicants must include a two-page statement of purpose. This statement should explain why the applicant wishes to pursue graduate work in political science. It should also indicate which track and/or field of concentration the applicant intends to pursue. Students should specify their potential thesis topics and list up to two prospective faculty advisors. Students are admitted into the program upon agreement of a faculty advisor. See Political Science Faculty research profiles at [http://www.wwu.edu/depts/polsci/pdfs/Graduate\\_Faculty\\_Research\\_Profiles.pdf](http://www.wwu.edu/depts/polsci/pdfs/Graduate_Faculty_Research_Profiles.pdf)



## POLITICAL SCIENCE

**Writing Sample.** Applicants must submit a writing sample, such as a research paper, or a similar paper demonstrating writing ability.

**TA deadline:** Preferred consideration will be given to applications completed by February 1.

**Specific Test Requirements:** Graduate Record Examination, General Test. Applicants with advanced degrees are not required to submit GRE scores.

### Program Requirements (45 credits)

- PLSC 501 - Political Science As a Discipline
- PLSC 502 - Research Techniques in Political Science (a graduate course in another department, as determined by the political science department, may be substituted for 502),
- PLSC 524 - Environmental Politics and Policy
  - The core course from one of the fields of concentration:
    - American Politics and Policy:
      - PLSC 503 - Public Policy and Administration
      - PLSC 540 - Seminar in the Political Process
    - Comparative Politics:
      - PLSC 505 - Seminar in Comparative Government and Politics
    - Political Theory:
      - PLSC 560 - Seminar in Political Theory
  - At least one other 500-level course in the same field of concentration
  - Interdisciplinary environmental studies field to be constructed by the student in consultation with environmental studies curriculum coordinator; must include three environmental studies courses
- PLSC 690 - Thesis/Thesis Research or ESTU 690 - Thesis Research
  - Oral defense of the thesis proposal and of the completed thesis
  - Electives: Courses selected under advisement from 400- and 500-level courses in political science and supporting disciplines; no more than 10 credits may come from 400-level courses, and no more than 10 credits of PLSC 500 (directed independent study) are allowed; all elective courses must be approved by the student's program committee.

### Political Science, Thesis, MA (In Moratorium)

This program is not currently accepting new students. For more information contact Department of Political Science, Western Washington University, 516 High Street, Bellingham, WA 981225-9082, 360-650-3469; [Vernon.Johnson@wwu.edu](mailto:Vernon.Johnson@wwu.edu).

*College of Humanities and Social Sciences*

### Graduate Faculty

**Abedi, Amir**, PhD, comparative politics, European politics, parties and party systems.

**Alper, Donald K.**, PhD, Canadian-politics, Canada-U.S. relations, American politics.

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**Donovan, Todd A.**, PhD, American, state and local, elections and representation.

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**Parris, Kristen D.**, PhD, comparative politics, East Asian politics, development.

**Salazar, Debra J.**, PhD, environmental politics, social movements, statistics.

**Singleton, Sara**, PhD, American politics, environmental politics, public policy.

**Weir, Sara J.**, PhD, American politics, public policy, gender issues.

Program Advisor: Dr. Amir Abedi, Arntzen Hall 407

## Goals

The program prepares students for:

- Employment in management positions in government, nonprofits and the private sector
- Admission to PhD programs in political science or other social sciences
- Positions in public policy institutes and think tanks

The Master of Arts program offers three fields of concentration: American politics and policy, comparative politics, and political theory. Students choose a major and minor field of concentration for their program. Students also may specialize in the environmental policy program, which is jointly offered with Huxley College of the Environment. This specialization is intended for students interested in developing a cognate program involving one field of study (of the three offered) in political science and a field in environmental policy-making studies.

## Admissions and Prerequisites

Students who meet the requirements of the Graduate School and who show evidence of strong academic performance and scholarly potential are invited to apply. Admission preference is given to students with course work in political science or related social sciences. Entering students should have completed undergraduate course work in American political processes, as well as course work in social science methodology equivalent to PLSC 366, Research in Politics. Any deficiencies must be satisfied during the student's first quarter if possible.

## Application Information

**Admit Quarter:** New students will be admitted to this program fall quarter only. Admission decisions normally will be made no later than March 15. Students should specify their potential thesis topics, and up to two prospective faculty advisors.

**Deadlines:** To ensure consideration for fall quarter, complete applications must be received by February 1.

**Materials supporting graduate applications:** All applicants must include a two-page statement of purpose. This statement should explain why the applicant wishes to pursue graduate work in political science. It should also indicate which track and/or field of concentration the applicant intends to pursue. Students should specify their potential thesis topics and list up to two prospective faculty advisors. Students are admitted into the program upon agreement of a faculty advisor. See Political Science Faculty research profiles at [http://www.wvu.edu/depts/polsci/pdfs/Graduate\\_Faculty\\_Research\\_Profiles.pdf](http://www.wvu.edu/depts/polsci/pdfs/Graduate_Faculty_Research_Profiles.pdf)

**Writing Sample.** Applicants must submit a writing sample, such as a research paper, or a similar paper demonstrating writing ability.

**TA deadline:** Preferred consideration will be given to applications completed by February 1.

**Specific Test Requirements:** Graduate Record Examination, General Test. Applicants with advanced degrees are not required to submit GRE scores.

Program Requirements: (45 credits)

All students are required to declare a major field and a minor field of concentration and take the core course in each. The student must then complete at least two additional 500-level courses in the major field and one more 500-level course in the minor field, as outlined below:

- PLSC 501 - Political Science As a Discipline

## POLITICAL SCIENCE

- PLSC 502 - Research Techniques in Political Science (a graduate course in another department, as determined by the political science department, may be substituted for 502)
- Two of the following courses, one from the major field and one from the minor field of concentration:
  - American Politics and Policy:
    - PLSC 503 - Public Policy and Administration
    - PLSC 540 - Seminar in the Political Process
  - Comparative Politics:
    - PLSC 505 - Seminar in Comparative Government and Politics
  - Political Theory
    - PLSC 560 - Seminar in Political Theory
- At least two additional 500-level political science courses in the major field of concentration
- At least one 500-level political science course in the minor field
- PLSC 690 - Thesis/Thesis Research (1-9 credits)
  - Oral defense of the thesis proposal and of the completed thesis
  - Electives: Courses selected under advisement from 400- and 500-level courses in political science and supporting disciplines; no more than 10 credits may come from 400-level courses, and no more than 10 credits of PLSC 500 (directed independent study) are allowed; all elective courses must be approved by the student's program committee

## Minor

### Political Science Minor

Department of Political Science, College of Humanities and Social Sciences

### 25 credits in political science courses

### Introduction/What is the Study of Political Science?

### Why Consider a Political Science Minor?

#### Contact Information

#### Department Chair

Sara Weir  
Arntzen Hall 415  
360-650-2912  
Sara.Weir@wwu.edu

#### Sample Careers

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

Note: PLSC 101 does not count toward minor.

☐ Two courses from:

- PLSC 250 - The American Political System
- PLSC 261 - Introduction to Political Theory
- PLSC 271 - Introduction to International Relations
- PLSC 291 - Introduction to Comparative Politics

☐ At least 10 credits of upper-division courses in political science

☐ No more than 12 transfer credits in political science courses will be accepted toward the minor

## Political Science Courses

### **PLSC 101 - Government and Politics in the Modern World**

Introduction to concepts of politics; types of governments and political problems in the world today.

Credits: 5

GUR Attributes: SSC

### **PLSC 250 - The American Political System**

Consideration of the system and process of American politics and government with primary focus on the national level.

Credits: 5

GUR Attributes: SSC

### **PLSC 261 - Introduction to Political Theory**

Major concepts of Western political theory - thematic or historical approach.

Credits: 5

GUR Attributes: HUM

### **PLSC 271 - Introduction to International Relations**

The politics of war, peace, and international economic relations.

Credits: 5

GUR Attributes: SSC

### **PLSC 291 - Introduction to Comparative Politics**

Basic structures, functions and sociocultural environments of foreign political systems; methods of comparative study.

Credits: 5

GUR Attributes: SSC

### **PLSC 301 - The British Parliamentary System**

The British parliamentary political system: analysis of British state and political structures and functions; analysis of British political parties; examination of the British service state.

**Prerequisites & Notes:** PLSC 101 or PLSC 250 or PLSC 291

Credits: 5

### **PLSC 302 - Western Europe**

Governments and politics of selected western European states.

**Prerequisites & Notes:** PLSC 101 or PLSC 291

Credits: 5

### **PLSC 307 - East Asia**

Survey course covering China, Japan and Korea since the mid-19th century. Not offered every year.

**Prerequisites & Notes:** PLSC 101 or PLSC 291

Credits: 5

### **PLSC 308 - African Political Systems**

Post-colonial political development in Africa focusing on ideologies and strategies for achieving legitimate government and improved living standards. Several country studies are included to illustrate outcomes associated with different strategies for development.

**Prerequisites & Notes:** PLSC 101 or PLSC 291

# POLITICAL SCIENCE

Credits: 5

## **PLSC 310 - The International Relations of East Asia**

The issues of national and human security in the East Asian Region.

**Prerequisites & Notes:** PLSC 271 or PLSC 291 or PLSC 307  
Credits: 5

## **PLSC 311 - Introduction to Law and Judicial Process**

Origin and development of basic concepts and practices of law with emphasis upon legal reasoning and values in contemporary societies.

**Prerequisites & Notes:** PLSC 250; only 1 of PLSC 311, MGMT 271 or FAIR 211 may be taken for GUR credit  
Credits: 5  
GUR Attributes: SSC

## **PLSC 312 - International Relations of South Asia**

A survey of the security relations between India, Pakistan and Afghanistan. The course will also relate these countries to US foreign policy goals and interest.

**Prerequisites & Notes:** PLSC 271  
Credits: 4

## **PLSC 313 - Law and Society**

An introduction to how law interacts with and is applied to different social and cultural contexts. Specific topics covered may change quarter to quarter. This course presumes a familiarity with basic legal concepts and a rudimentary knowledge of the legal system.

**Prerequisites & Notes:** PLSC 250; and PLSC 311 or FAIR 211b or MGMT 271  
Credits: 5

## **PLSC 314 - U.S. Supreme Court**

Introduction to the U.S. Supreme Court as an institution within the American political system. Topics covered include: Court procedures and decision-making, constitutional history, judicial powers and doctrines, and the Court's role in

American politics and society. No prior knowledge of the Supreme Court is presumed.

**Prerequisites & Notes:** PLSC 250; 311 recommended.  
Credits: 5

## **PLSC 345 - Women and Politics**

The history and ideas of the women's movement; investigation of the changing role of women in American politics including legal status, economic position and political behavior.

**Prerequisites & Notes:** PLSC 101 or PLSC 250  
Credits: 5

## **PLSC 345S - Women and Politics**

The history and ideas of the women's movement; investigation of the changing role of women in American politics including legal status, economic position and political behavior.

Credits: 3

## **PLSC 346 - Politics of Inequality**

Survey of the causes and consequences of inequality, particularly economic inequality, and the political, social and economic institutions and processes supporting group subordination, racism, sexism and poverty.

**Prerequisites & Notes:** PLSC 250  
Credits: 5  
GUR Attributes: ACGM

## **PLSC 347 - Race, Politics and Public Policy**

The historical and political bases of contemporary racial conflict in the United States.

**Prerequisites & Notes:** PLSC 250 or equivalent  
Credits: 5

## **PLSC 353 - State and Local Politics**

Politics of states, urban regions and suburbs. Inter-jurisdictional conflict over growth or development. Federal relations, direct democracy and state policy making.

**Prerequisites & Notes:** PLSC 250  
Credits: 5

**PLSC 361 - Classical Political Thought**

Exploration of emerging themes in classical political thought, such as Greek, Roman, Judeo-Christian, and Islamic traditions.

**Prerequisites & Notes:** HIST 111 or LBRL 121 or PLSC 261 or equivalent.  
Credits: 4

**PLSC 362 - Political Theory: Renaissance and Modern**

Exploration of themes in Renaissance and Modern political thought, with particular focus on the nature of freedom, right, individuality, communal obligation, and the rise of the nation-state.

**Prerequisites & Notes:** HIST 112 or LBRL 121 or PLSC 261 or equivalent.  
Credits: 4

**PLSC 366 - Research in Politics**

Fundamentals of research design, including basic methods for the collection and statistical analysis of political and administrative data.

Credits: 5

**PLSC 370 - Global Issues in International Politics**

Problems of global dimensions (population, food, resources, environment, nuclear proliferation, terrorism) and international efforts to solve them.

**Prerequisites & Notes:** PLSC 271  
Credits: 5

**PLSC 372 - International Political Economy**

The politics of international trade, investment, lending and economic development.

**Prerequisites & Notes:** PLSC 271 or PLSC 291; and any economics course  
Credits: 5  
GUR Attributes: SSC

**PLSC 376 - American Foreign Policy**

Background and organization of American foreign policy; the conduct of diplomatic relations with other states; current issues and problems in foreign affairs.

**Prerequisites & Notes:** PLSC 271 or PLSC 291.  
Credits: 5

**PLSC 390 - The Politics of Development**

Political processes in developing countries, colonialism, nationalism, alternative models of political and economic development; problems of instability, military rule, population, famine, debt and other issues confronting developing nations.

**Prerequisites & Notes:** PLSC 271 or PLSC 291  
Credits: 5

**PLSC 399 - The Politics of Democratization**

The domestic and international challenges of democratization.

**Prerequisites & Notes:** PLSC 271 or PLSC 291.  
Credits: 5

**PLSC 402 - Regional European Society and Politics**

Government and society in selected countries from the Scandinavian, Alpine, Benelux and Iberian European regions.

**Prerequisites & Notes:** PLSC 101 or PLSC 291  
Credits: 4

**PLSC 403 - The European Union and the Process of European Integration**

Explores the process of European integration after World War II and the European Union. Topics covered include integration theories, the historical development of the EU, its institutional structure, as well as various policy areas.

**Prerequisites & Notes:** None  
Credits: 4

**PLSC 406 - Canadian Government and Politics**

Canadian political institutions and process, relations with U.S., current topics including regional tensions, the environment, and First Nations.

**Prerequisites & Notes:** PLSC 250, PLSC 291 or instructor permission  
Credits: 4

# POLITICAL SCIENCE

## **PLSC 414 - Constitutional Law I: National Powers**

Supreme Court decisions interpreting major parts of the Constitution: judicial power; separation of powers; and federalism.

**Prerequisites & Notes:** PLSC 250 and PLSC 314; and one of PLSC 311, FAIR 211B or MGMT 271  
Credits: 5

## **PLSC 415 - Constitutional Law II: Individual Rights**

Supreme Court decisions interpreting major parts of the Constitution: Bill of Rights and Fourteenth Amendment.

**Prerequisites & Notes:** PLSC 250, PLSC 314; and PLSC 311 or FAIR 211B or MGMT 271  
Credits: 5

## **PLSC 420 - Environmental Politics**

Examination of contending perspectives on environmental problems. Focus on how these perspectives are rooted in political philosophy, their roles in the development of environmental movements, and the implications for public policy. Also offered as ENVS 458.

**Prerequisites & Notes:** PLSC 101 or PLSC 250  
Credits: 5

## **PLSC 421 - Lesbian, Gay, Bisexual, Transgendered Politics**

Examines how lesbian, gay, bisexual and transgender (LGBT) citizens have organized to achieve social change. Focuses on how LGBT movements have engaged in electoral, judicial, legislative, protest and other forms of politics.

**Prerequisites & Notes:** PLSC 250 or AMST 242 or instructor permission  
Credits: 5

## **PLSC 423 - The American Presidency**

The growth of presidential power; the institutionalized presidency and styles of presidential leadership. The president as party leader, policy initiator, chief executive, commander-in-chief and head of foreign relations.

**Prerequisites & Notes:** PLSC 250

Credits: 3

## **PLSC 427 - Policy-Making and Policy Analysis**

Organizational and societal policy-making, and the nature and consequences of policy for various groups and sectors of the polity; the possibility and problems of objective analysis conducted from within the boundaries of the subject political system.

**Prerequisites & Notes:** PLSC 250  
Credits: 4

## **PLSC 430 - Modern Chinese Politics**

An introduction to politics and society in modern China: state structures, political culture, state-society relations, policy-making and foreign relations

**Prerequisites & Notes:** PLSC 291 or equivalent  
Credits: 4

## **PLSC 431 - Senior Seminar in American Politics and Public Policy**

Capstone seminar in American politics and public policy. Topics vary but emphasis is on political institutions and processes and public policy. Repeatable with various topics to a maximum of 8 credits.

**Prerequisites & Notes:** Senior status in political science and 30 credits in political science.  
Credits: 3-5

## **PLSC 432 - Senior Seminar - Political Theory**

Capstone seminar in political theory. Involves reading and research in original sources on topics of central importance to politics. Emphasis is on critical examination and discussion of ideas. Repeatable with various topics to a maximum of 8 credits.

**Prerequisites & Notes:** Senior status in political science and 30 credits in political science.  
Credits: 3-5

## **PLSC 433 - Senior Seminar in Comparative Politics**

Capstone seminar in comparative politics. Topics vary but emphasis is on comparative issues and approaches. Repeatable with various topics to a

maximum of 8 credits.

**Prerequisites & Notes:** Senior status in political science and 30 credits in political science.

Credits: 3-5

**PLSC 434 - Senior Seminar in International Politics**

Capstone seminar in international relations. Topics vary but emphasis is on the interactions of state and non-state actors across international boundaries. Repeatable with various topics to a maximum of 8 credits.

**Prerequisites & Notes:** Senior status in political science and 30 credits in political science.

Credits: 3-5

**PLSC 435 - Special Topics in Environmental Politics**

Analysis of current topics related to environment and politics. Topics vary. Repeatable with various topics to a maximum of 8 credits

**Prerequisites & Notes:** Senior status in political science and 30 credits in political science.

Credits: 3-5

**PLSC 436 - Managing Environmental Commons**

Explores how political, economic and social institutions affect the management and sustainability of shared environments, both local and global.

**Prerequisites & Notes:** One upper-division course in political science or instructor permission.

Credits: 5

**PLSC 443 - Legislative Internship**

Internship in the Washington state Legislature during winter quarter; assignment is primarily as research assistant to a legislator. Enrollment limited to the number of internships allocated by the Legislature. Open only to juniors and seniors, competitively selected. No more than 10 credits of internship may be counted toward the major without the permission of the chair. Repeatable to a maximum of 15 credits.

Credits: 5-15

**PLSC 444 - Administrative Internships**

Internships in administrative agencies and other public service settings. Priority given to seniors. Requests for internships should be filed with the departmental intern coordinator one quarter in advance of registration for this course. No more than 10 credits in internship may be counted toward the major without the permission of the chair. Credit may be divided over two quarters where the internship placement requires a commitment of more than 10 weeks. Repeatable to a maximum of 15 credits.

**Prerequisites & Notes:** Two courses in appropriate field in discipline

Credits: 3-15

**PLSC 447 - Teaching Internship**

Assists faculty member in conduct of political science course. No more than 10 cr in internship may be counted toward the major without the permission of the chair. Repeatable to a maximum of 6 cr.

**Prerequisites & Notes:** Two from: PLSC 250, PLSC 261, PLSC 271, PLSC 291 plus 10 upper-division credits in political science.

Credits: 2-5

**PLSC 448 - Research Internship**

Student will work closely with one faculty member, providing assistance with research. Course is structured on an apprenticeship model. Repeatable up to 10 credits.

**Prerequisites & Notes:** Instructor permission

Credits: 2-5

**PLSC 449 - Politics and Social Change**

Theories linking social change and politics. The role of ideas and ideology, mass movements, political institutions, social disruption and violence in causing and directing change.

**Prerequisites & Notes:** PLSC 101 or PLSC 250

Credits: 4

**PLSC 450 - Parties, Campaigns and Elections**



## POLITICAL SCIENCE

Political parties, voters and voting behavior, candidate and campaign strategy, the resources of politics; workers, money, and mass media.

**Prerequisites & Notes:** PLSC 250  
Credits: 4

### **PLSC 453 - Comparative Electoral Systems**

Examines how institutional rules affect party systems, electoral outcomes, prospects for small parties, and fairness in translating votes into seats. Survey of politics of electoral system reform in modern democracies. Not offered every year.

**Prerequisites & Notes:** PLSC 101, PLSC 291 or PLSC 450  
Credits: 4

### **PLSC 462 - The Rise of Modern Political Economy**

An examination of the conceptual, ethical, and ideological underpinnings of political economy and the implications for contemporary public policy.

**Prerequisites & Notes:** PLSC 261 or HIST 113; and ECON 206 or ECON 207 or equivalent  
Credits: 5

### **PLSC 463 - American Political Thought**

Major concepts in American political thought from the Colonial period to the present.

**Prerequisites & Notes:** PLSC 261 or HIST 103 or HIST 104 or equivalent  
Credits: 4

### **PLSC 464 - Contemporary Political Theory**

Contemporary developments, with emphasis on Continental political theory. May also include other contemporary contributions, such as feminist theory and neo-pragmatism.

**Prerequisites & Notes:** PLSC 261 or any 400-level political theory course  
Credits: 4

### **PLSC 467 - Philosophical and Ethical Issues in Law**

Philosophical and ethical inquiry into legal issues and problems. Topics covered may include the philosophical and ethical foundations of law; law in

relation to justice, morality, and equality; and philosophical and ethical inquiry into specific areas or current topics of law (e.g. tort, criminal, property, and/or constitutional law; capital punishment, affirmative action, same-sex marriage, and abortion).

**Prerequisites & Notes:** PLSC 250, PLSC 311, plus one additional upper-division course in law or political theory.  
Credits: 5

### **PLSC 469 - Feminist Political Theory**

Early feminists to contemporary theoretical critiques and contributions. Topics such as feminist conceptions of philosophy of science, eco-feminism and post-modernism. Not offered every year.

**Prerequisites & Notes:** PLSC 261 or any 400-level political theory course  
Credits: 4

### **PLSC 480 - Politics, Government and Religion**

How political activity and government structures relate to religious perceptions and organizations. Not offered every year.

**Prerequisites & Notes:** instructor permission  
Credits: 4

### **PLSC 489 - Managing An International Ecosystem**

A research seminar that examines how economic, environmental, social and political agendas affect the shared international ecosystem - Georgia Basin/Puget Sound. Course focuses on the interests of various stakeholders and the efforts taken to manage the cross-border environmental issues. The course involves cross-border travel and field work and thus participants require a passport. In some years, the course will involve collaborations with students and faculty from Canadian Universities. Also offered as C/AM 489 and ESTU 489.

**Prerequisites & Notes:** Junior or Senior status.  
Credits: 5

### **PLSC 491 - Issues in Political Economy**

Discussion and analysis of selected issues of significant political and economic content. Also

offered as ECON 491. Not offered every year.

**Prerequisites & Notes:** senior standing political science/economics combined major or political science major/economics minor  
Credits: 4

**PLSC 493 - Issues in Political Theory**

Discussion and analysis of specialized and timely issues in political theory. Possible topics include, but are not limited to: comparative political theory; Islamic political thought; toleration; cosmopolitanism; humanitarian intervention; race, gender, and sexuality; aesthetics and rhetoric. Repeatable up to 8 credits.

**Prerequisites & Notes:** PLSC 261 or any 400-level political theory course.  
Credits: 4

**PLSC 496 - Honors Tutorial**

Repeatable to a maximum of 10 cr.

Credits: 2-5

**PLSC 496A - Honors Tutorial**

Repeatable to a maximum of 10 cr.

Credits: 2-5

**PLSC 496B - Honors Tutorial**

Repeatable to a maximum of 10 cr.

Credits: 2-5

**PLSC 496C - Honors Tutorial**

Repeatable to a maximum of 10 cr.

Credits: 2-5

**PLSC 501 - Political Science As a Discipline**

Study of political science as an academic field; description and critique of subfields trends and challenges.

Credits: 5

**PLSC 502 - Research Techniques in Political Science**

**Prerequisites & Notes:**

PLSC 366 or equivalent  
Credits: 5

**PLSC 503 - Public Policy and Administration**

Consideration of current and emerging problems facing public organizations.

Credits: 5

**PLSC 505 - Seminar in Comparative Government and Politics**

Principles of government and politics in existing and developing states.

Credits: 5

**PLSC 506 - Advanced Topics: Comparative Government and Politics**

Advanced comparative consideration of the political systems of selected nation-states. Repeatable to a maximum of 10 credits.

**Prerequisites & Notes:** instructor and graduate advisor permission

Credits: 5

**PLSC 521 - Seminar in Public Policy Analysis**

Advanced problems in public policy and analysis.

Credits: 3

**PLSC 524 - Environmental Politics and Policy**

Survey of the field of environmental politics and policy. Examination of how political scientists have addressed environmental issues by focusing on questions raised, methods used and conclusions reached. Approach is comparative in examining research on different countries. Also offered as ESTU 524.

Credits: 5

**PLSC 540 - Seminar in the Political Process**

The influence of organizations and individuals in the formation of public policy. Includes study of the role of beliefs in the political process.

Credits: 5

**PLSC 542 - Public Service Internship**

## POLITICAL SCIENCE

Work as research and management assistant with a local, state or federal government body (executive, legislative or judiciary), political party, interest group or private nonprofit organization. Work-load: 3 hours/week per credit. Repeatable to a maximum of 10 cr.

**Prerequisites & Notes:** PLSC 501, PLSC 503  
Credits: 1-10

### **PLSC 560 - Seminar in Political Theory**

Function and history of political theory; the crisis in traditional theory; emerging trends. Repeatable to a maximum of 10 credits.

Credits: 5

### **PLSC 570 - Special Problems in Political Science**

The consideration of special problems and the conduct of independent study under the guidance and supervision of a faculty member. Repeatable to a maximum of 15 cr.

Credits: 1-5

### **PLSC 690 - Thesis/Thesis Research**

Repeatable to a maximum of 9 cr.

Credits: 1-9

# Psychology

## Introduction

Most of the major problems facing the people of the world today — hunger, overpopulation, the continuing threat of war, prejudice, pollution, drug addiction — are people problems; people have created them, and it will be people who must and will find solutions to them. Psychology, as the scientific study of mind and behavior, will help provide the answers to many of these pressing problems.

Psychology's attempt to understand the human condition takes many approaches. Some psychologists study brain chemistry and its relation to behavior, while others study the behavior of individuals in groups (for example, in a religious cult). Still others are engaged in providing counseling or psychotherapy to people who are mentally ill or who are having difficulty in coping with the demands of life. With a faculty of 28 men and women, all of whom hold doctoral degrees, the department is able to offer a program of study which provides a solid foundation in the general concepts and methods of psychology, as well as courses and programs for students in many of the more specialized areas of this large and exciting field.

The Department of Psychology has limited the number of credits required for a major in psychology so that students may develop minors or a second major in another department. The core program in general psychology is designed to ensure that all majors will develop a sound basic background in psychology which will provide effective preparation for advanced study as well as contribute significantly to a liberal education. A very important kind of learning takes place when students become personally involved in psychological research. Students are encouraged to become active participants in their own research projects or to cooperate with a faculty member in his or her ongoing research. It also is recommended that students seek participation in one of the off-campus field experiences which are available.

In addition to its undergraduate offerings, the department also offers three graduate programs, an MS in experimental psychology with an optional specialization in measurement, evaluation, and statistical analysis (MESA); an MS in mental health counseling; and an MEd in school counseling. Complete descriptions of these programs may be found in the Graduate School section of this catalog.

## Faculty

**LAWRENCE A. SYMONS** (2000) Chair and Associate Professor. BA, MA, University of British Columbia; PhD, University of Western Ontario.

**ROBINDER P. BEDI** (2008) Associate Professor BA, MA, Simon Fraser University, PhD, University of British Columbia

**CHRISTINA A. BYRNE** (1997) Associate Professor. BS, Virginia Commonwealth University; MS, PhD, University of Georgia.

**JEFFREY B. CARROLL** (2012) Assistant Professor. BS, PhD, University of British Columbia.

**ALEXANDER M. CZOPP** (2008) Associate Professor BA, St. Mary's College of Maryland, MS, PhD, University of Kentucky

**JENNIFER DEVENPORT** (2003) Associate Professor. BA, Boise State University; MS, PhD, Florida International University; MLS, University of Nebraska.

**DALE L. DINNELL** (1986) Professor. BS, MAT, MA, PhD, University of Nebraska.

**JANET M. FINLAY** (1999) Associate Professor. BS, University of Victoria; PhD, University of British Columbia.

**DEBORAH K. FORGAYS** (1994) Professor. BA, MEd, PhD, University of Vermont.

**JAMES GRAHAM** (2006) Associate Professor. BA, Purdue University; MA, Pepperdine University; PhD, Texas A&M University.

**REBECCA GOODVIN** (2007) Associate Professor. BA, Gonzaga University; MA, PhD, University of Nebraska.

**JEFFREY W. GRIMM** (2001) Professor. BA, Whitman College; MS, PhD, Washington State University.

**DIANA GRUMAN** (2003) Associate Professor. BA, Whitman College; MEd, Western Washington University; PhD, University of Washington.

**TODD HASKELL** (2006) Associate Professor. BA, Dartmouth College; PhD, University of Southern California.

## PSYCHOLOGY

**IRA E. HYMAN, JR.** (1991) Professor. BA, Duke University; MA, PhD, Emory University.

**KELLY J. JANTZEN** (2007) Associate Professor. BA, PhD, Simon Fraser University.

**MCNEEL GORDON JANTZEN** (2009) Assistant Professor. BA, MA, PhD, Florida Atlantic University.

**JEFF KING** (2007) Professor. BA, University of Oklahoma; MS, PhD, Pennsylvania State University.

**BARBARA J. LEHMAN** (2005) Associate Professor. BA, Drew University; MA, PhD, Claremont Graduate University.

**KRISTI M. LEMM** (2000) Associate Professor. BA, Columbia University; MS, PhD, Yale University.

**LUCY D. LEWIS** (2013) Assistant Professor. BA, MS, Ed S, PhD, University of North Carolina.

**MICHAEL J. MANA** (1999) Associate Professor. BS, Washington State University; MA, PhD, University of British Columbia.

**ADRIANA M. MANAGO** (2012) Assistant Professor. BS, West Virginia University; MA, San Jose State University; PhD, University of California, Los Angeles.

**KATE C. McLEAN** (2007) Associate Professor. BA, Mills College; PhD, University of California-Santa Cruz.

**JACQUELINE ROSE** (2008) Assistant Professor. BS, University of Calgary; MA, Queen's University; PhD, University of British Columbia

**TINA DU ROCHER SCHUDLICH** (2006) Assistant Professor. BA, University of Michigan; MA, PhD, University of Notre Dame.

**CRISTINA SAMPAIO** (2006) Associate Professor. PhD, University of Illinois at Urbana-Champaign.

**DAVID N. SATTLER** (2000) Professor. BA, San Diego State University; MA, PhD, Michigan State University.

**JOSEPH E. TRIMBLE** (1978) Professor. BA, Waynesburg College; MA, University of New Hampshire; PhD, University of Oklahoma; RF, Radcliffe Institute, Harvard University.

### Declaration Process

Students wishing to declare a major in psychology must have:

1. completed at least 75 credits;
2. successfully completed or be currently enrolled in Psy 301;
3. achieved a Western GPA (based on at least 12 credits) of 2.70 or higher. A GPA of 3.0 in all psychology courses taken at Western, including PSY 301, may substitute for the overall 2.70 GPA.

### Other Departmental Information

#### *Mid-Program Checkpoint*

Students seeking to complete a BA in psychology within four years should have completed an introductory psychology class (e.g., PSY 101 or a comparable course at another school) and 15 other credits in psychology by the start of their junior year.

### Graduate Study

For concentrations leading to the Master of Education or the Master of Science degrees, see the *Graduate School* section of this catalog.

## Bachelor of Arts

### Behavioral Neuroscience, BA

Combined major offered by the Department of Psychology, College of Humanities and Social Sciences and the Department of Biology, College of Sciences and Technology.

### 106-109 credits

## Introduction/What is the Study of Behavioral Neuroscience?

Behavioral neuroscience explores the role of the nervous system in normal and abnormal behavior, thought and emotion. For example, Behavioral Neuroscientists study the biological basis of normal learning and memory as well as psychiatric illnesses such as depression, schizophrenia and drug abuse.

## Why Consider a Behavioral Neuroscience Major?

This interdisciplinary program provides students with the specialized preparation and technological sophistication critical for success in a variety of graduate-training programs, including neuroscience, psychology, pharmacology, mental health, and neurobiology; and in health care, including medicine and dentistry. For those students who do not anticipate pursuing post-graduate education, the degree program provides an excellent platform for entry-level positions in such areas as biomedical research and the pharmaceutical industry.

### Contact Information

Program Director	Behavioral Neuroscience Program Coordinator	Biology Program Coordinator
Janet Finlay	Coco Besson	Maren Brinson
Academic Instructional Center 572	Academic Instructional Center 599	Biology 315
360-650-6717	360-650-2148	360-650-6165
Janet.Finlay@wwu.edu	Coco.Besson@wwu.edu	Maren.Brinson@wwu.edu

### Faculty Advisors

Biology: Roger Anderson. Psychology: Janet Finlay, Jeff Carroll, Jeffrey Grimm, Kelly Jantzen, McNeel Jantzen, Mike Mana, Jacqueline Rose.

### Sample Careers

Neuroscientist | Biomedical Researcher | Psychiatrist | Medical Doctor | Dentist | Pharmacist | Veterinarian | Physician Assistant | Pharmaceutical Sales

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

### Grade Requirements

A grade of C- or better is required for a student's major courses.

### Requirements

#### Basic Requirements:

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- BIOL 321 - Genetics
- BIOL 323 - Cell and Molecular Biology
- BIOL 432 - Evolutionary Biology
- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- CHEM 251 - Elementary Organic Chemistry or equivalent
- MATH 114 - Precalculus I
- PSY 101 - Introduction to Psychology

# PSYCHOLOGY

- PSY 220 - Introduction to Behavioral Neuroscience
- PSY 301 - Overview of Research Methods
- PSY 303 - Research Methods and Statistical Analysis: Experimental Approaches
- PSY 319 - Cognitive Neuroscience
- PSY 320 - Topics in Behavioral Neuroscience
- PSY 323 - Psychopharmacology
- PSY 328 - Techniques in Behavioral Neuroscience
- One course from:
  - BIOL 410 - Animal Behavior
- PSY 321 - Learning
- PSY 324 - Comparative Psychology
- Seminar Requirements (3-5 credits)**
  - BIOL 410 - Animal Behavior (can be applied to Basic OR Seminar requirement, not both)
  - BIOL 476 - The Structural Basis of Membrane Transport Proteins
  - BIOL 486 - Topics in Molecular Mechanisms of Neurodevelopment
  - PSY 410 - Seminar in Cognitive Neuroscience
  - PSY 420 - Seminar in Behavioral Neuroscience
  - PSY 421 - Seminar in Learning
  - PSY 422 - Seminar in Motivation
  - PSY 424 - Seminar in Comparative Psychology
- Electives under advisement (10 credits)**
  - BIOL 322 - Genetics Lab
  - BIOL 324 - Methods in Molecular Biology
  - BIOL 325 - Ecology
  - BIOL 410 - Animal Behavior
  - BIOL 467 - Comparative Vertebrate Physiology
  - BIOL 468 - Comparative Vertebrate Physiology Laboratory
  - BIOL 471 - Biochemistry I
  - BIOL 472 - Biochemistry II
  - BIOL 476 - The Structural Basis of Membrane Transport Proteins
  - BIOL 482 - Developmental Biology of Animals
  - BIOL 484 - Cell Biology Laboratory
  - BIOL 486 - Topics in Molecular Mechanisms of Neurodevelopment
  - BIOL 497
  - CHEM 375 - Elements of Biochemistry
  - PSY 210 - Cognition
  - PSY 302 - Research Methods and Statistical Analysis: Correlational Approaches
  - PSY 310 - Sensation and Perception
  - PSY 322 - Motivation
  - PSY 327 - Cognitive Neuroscience Lab
  - PSY 410 - Seminar in Cognitive Neuroscience
  - PSY 420 - Seminar in Behavioral Neuroscience
  - PSY 421 - Seminar in Learning
  - PSY 422 - Seminar in Motivation
  - PSY 424 - Seminar in Comparative Psychology
  - PSY 428 - Advanced Techniques in Behavioral Neuroscience
- One course from:
  - BIOL 300

- BIOL 395 - Biology Research Participation  
BIOL 400
  - BIOL 494 - Biology Research
  - BIOL 495 - Research Communication
- One course from:  
PSY 300  
PSY 400

#### Additional Information

A maximum combined total of 10 credits in PSY 300, 400 or BIOL 300, 395, 400, 494, 495 can be applied to the major.

## Psychology, BA

Department of Psychology, College of Humanities and Social Sciences

### 74 credits

#### Introduction/What is the Study of Psychology?

Psychology's attempt to understand the human condition takes many approaches. Some psychologists study brain chemistry and its relation to behavior, while others study the behavior of individuals in groups. Still others are engaged in providing counseling or psychotherapy to people who are mentally ill or who are having difficulty in coping with the demands of life. With a faculty of over 30 women and men, all of whom hold a doctoral degree; the department offers a program of study which provides a solid foundation in the general concepts and methods of Psychology, as well as courses and programs for students in many of the more specialized areas.

The core program in general psychology is designed to ensure that all students majoring psychology will develop a sound basic preparation for advanced study, as well as contributes significantly to a liberal education. The program is designed to allow students flexibility in selecting courses with the assistance of their advisor.

#### Why Consider a Psychology Major?

Most of the major issues facing the people of the world today--hunger, overpopulation, the continuing threat of war, prejudice, pollution, drug addiction--are people problems; people have created them, and it will be people who must and will find solutions to them. Psychology, as the scientific study of mind and behavior, will help provide the answers to many of these pressing problems.

#### Contact Information

##### Department Chair

Dr. Larry Symons  
Academic Instruction Center 440  
360-650-4019  
Larry.Symons@wwu.edu

##### Undergraduate Advisor

See Department Office  
Academic Instruction Center 434  
360-650-3515

#### Sample Careers

Counselor | Employment Agency Counselor | Training and Development Professional | Mental Health Coordinator | Human Resources Personnel | Social Service Administrator | Public Relations | Corrections Officer | Educator | Market Research Analyst | Social Service Worker | Psychologist

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)



## How to Declare (Admission and Declaration Process):

**Pre-Major:** To be eligible, students must have completed 15 credits in Psychology with a minimum of 5 credits at Western.

### Admissions:

Contact the department to declare the major once you have completed the following requirements:

Completed a total of at least 75 credits

Successfully completed or be currently enrolled in PSY 301

Achieved a Western Cumulative GPA (based on at least 12 credits) of 2.70 or higher. A GPA of 3.0 in all Psychology courses taken at Western, including PSY 301, may substitute for the cumulative GPA

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- PSY 101 - Introduction to Psychology
- PSY 210 - Cognition
- PSY 220 - Introduction to Behavioral Neuroscience
- PSY 230 - Lifespan Developmental Psychology
- PSY 240 - Social Psychology
- PSY 250 - Introduction to Abnormal Psychology
- PSY 301 - Overview of Research Methods
- PSY 302 - Research Methods and Statistical Analysis: Correlational Approaches
- PSY 303 - Research Methods and Statistical Analysis: Experimental Approaches
- One course from:
  - PSY 310 - Sensation and Perception
  - PSY 311 - Human Memory
  - PSY 318 - Psychology of Language
  - PSY 319 - Cognitive Neuroscience
  - PSY 320 - Topics in Behavioral Neuroscience
  - PSY 321 - Learning
  - PSY 322 - Motivation
  - PSY 323 - Psychopharmacology
  - PSY 324 - Comparative Psychology
- One course from:
  - PSY 330 - Child Development
  - PSY 331 - Adult Development and Aging
  - PSY 332 - Adolescent Development
  - PSY 333 - Infant Development
  - PSY 340 - Environmental Psychology
  - PSY 341 - Psychology and Culture
  - PSY 342 - Social Cognition
  - PSY 343 - Social Processes
  - PSY 344 - Psychology and the Law
  - PSY 345 - Evolutionary Psychology
  - PSY 346 - Stereotyping, Prejudice, & Discrimination

- PSY 351 - Abnormal Psychology and Interventions
- One 300-level course (in addition to the two 300-level courses above) from:
  - PSY 310 - Sensation and Perception
  - PSY 311 - Human Memory
  - PSY 318 - Psychology of Language
  - PSY 319 - Cognitive Neuroscience
  - PSY 320 - Topics in Behavioral Neuroscience
  - PSY 321 - Learning
  - PSY 322 - Motivation
  - PSY 323 - Psychopharmacology
  - PSY 324 - Comparative Psychology
  - PSY 330 - Child Development
  - PSY 331 - Adult Development and Aging
  - PSY 332 - Adolescent Development
  - PSY 333 - Infant Development
  - PSY 340 - Environmental Psychology
  - PSY 341 - Psychology and Culture
  - PSY 342 - Social Cognition
  - PSY 343 - Social Processes
  - PSY 344 - Psychology and the Law
  - PSY 345 - Evolutionary Psychology
  - PSY 346 - Stereotyping, Prejudice, & Discrimination
  - PSY 351 - Abnormal Psychology
  - PSY 375 - Health Psychology
  - PSY 376 - Psychology of Romantic Relationships
  - PSY 377 - Positive Psychology
  - PSY 378 - Personality
- One course each from two of the following five areas:
  - Cognitive:**
    - PSY 410 - Seminar in Cognitive Neuroscience
    - PSY 411 - Seminar in Cognition
  - Behavioral Neuroscience:**
    - PSY 420 - Seminar in Behavioral Neuroscience
    - PSY 421 - Seminar in Learning
    - PSY 422 - Seminar in Motivation
    - PSY 424 - Seminar in Comparative Psychology
  - Development:**
    - PSY 430 - Seminar in Developmental Psychology
    - PSY 431 - Seminar in Adult Development and Aging
  - Social:**
    - PSY 440 - Seminar in Environmental Psychology
    - PSY 441 - Seminar in Cross-Cultural Psychology
    - PSY 442 - Seminar in Social Psychology
  - Abnormal:**
    - PSY 451 - Seminar in Abnormal Psychology
- One course from:
  - PSY 481 - Seminar in History and Systems of Psychology
  - PSY 482 - Seminar in Psychological Theory

## Bachelor of Arts in Education

### Psychology: Human Development — Elementary, BAE

Department of Psychology, College of Humanities and Social Sciences

#### 48-53 credits

#### Introduction/What is the Study of Psychology: Human Development - Elementary?

Psychology's attempt to understand the human condition takes many approaches. Some psychologists study brain chemistry and its relation to behavior, while others study the behavior of individuals in groups. Still others are engaged in providing counseling or psychotherapy to people who are mentally ill or who are having difficulty in coping with the demands of life. With a faculty of over 30 women and men, all of whom hold a doctoral degree; the Department offers a program of study which provides a solid foundation in the general concepts and methods of Psychology, as well as courses and programs for students in many of the more specialized areas.

The program in Psychology: Human Development is designed to provide students in the Elementary Education program with an in-depth understanding of theory, research, and application in developmental psychology, and a sound background in general psychology. The program is designed to allow students flexibility in selecting psychology courses with the assistance of their advisor.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in elementary education. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### Why Consider a Psychology: Human Development - Elementary Major?

Many of the major issues facing children and schools today – school readiness, achievement motivation, testing, classroom behavior, stereotyping, bullying, family and neighborhood stressors – are issues of human psychology. Psychology, as the scientific study of mind and behavior, will help provide answers to these problems, as well as contribute to the scientific understanding of how children best think and learn.

Contact Information		
<b>Department Chair</b> Dr. Larry Symons Academic Instruction Center 440 360-650-3515 Larry.Symons@wwu.edu	<b>Undergraduate Advisor</b> Rebecca Goodvin Academic Instruction Center 496 360-650-3575 Rebecca.Goodvin@wwu.edu	<b>Undergraduate Advisor</b> Tina Du Rocher Schudlich Academic Instruction Center 476 360-650-7636 Tina.DuRocherSchudlich@wwu.edu
<b>Elementary Education Professional Program Information</b> Miller Hall 300 360-650-3336 <a href="http://www.wce.wwu.edu/Depts/ELED">http://www.wce.wwu.edu/Depts/ELED</a>	<b>Teacher Education Admissions</b> Miller Hall 214 360-650-3313 <a href="http://www.wce.wwu.edu/admiss">http://www.wce.wwu.edu/admiss</a>	<b>Elementary Education Professional Program Advisor and Program Manager</b> Ellen Kreider Miller Hall 301D 360-650-7948 Ellen.Kreider@wwu.edu
Sample Careers		
Elementary Teacher		
Major/Career Resources		
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>		

## How to Declare (Admission and Declaration Process):

**Pre-Major:** To be eligible, students must have completed 15 credits in Psychology with a minimum of 5 credits at Western.

### Admissions:

Contact the department to declare the major once you have completed the following requirements:

- Completed a total of at least 75 credits
- Successfully completed or be currently enrolled in PSY 301
- Achieved a Western Cumulative GPA (based on at least 12 credits) of 2.70 or higher
- A GPA of 3.0 in all Psychology courses taken at Western, including PSY 301, may substitute for the cumulative GPA

## Grade Requirements

A grade of C (2.0) or better is required for courses in the elementary education professional program and all courses required for the endorsement.

### Requirements

- PSY 101 - Introduction to Psychology
- One course from:
  - PSY 210 - Cognition
  - PSY 220 - Introduction to Behavioral Neuroscience
- One course from:
  - PSY 240 - Social Psychology
  - PSY 250 - Introduction to Abnormal Psychology
- ELED 301 - Educational Psychology I: Development and Individual Differences
- ELED 302 - Educational Psychology II: Motivation, Learning and Assessment
- PSY 301 - Overview of Research Methods
- Three upper division courses from the list below:
  - PSY 302 - Research Methods and Statistical Analysis: Correlational Approaches
  - PSY 303 - Research Methods and Statistical Analysis: Experimental Approaches
  - PSY 310 - Sensation and Perception
  - PSY 311 - Human Memory
  - PSY 318 - Psychology of Language
  - PSY 319 - Cognitive Neuroscience
  - PSY 320 - Topics in Behavioral Neuroscience
  - PSY 322 - Motivation
  - PSY 323 - Psychopharmacology
  - PSY 324 - Comparative Psychology
  - PSY 331 - Adult Development and Aging
  - PSY 340 - Environmental Psychology
  - PSY 341 - Psychology and Culture
  - PSY 342 - Social Cognition
  - PSY 343 - Social Processes
  - PSY 344 - Psychology and the Law
  - PSY 345 - Evolutionary Psychology
  - PSY 351 - Abnormal Psychology and Interventions
  - PSY 359 - Introduction to School and Mental Health Counseling

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- PSY 375 - Health Psychology
- PSY 410 - Seminar in Cognitive Neuroscience
- PSY 411 - Seminar in Cognition
- PSY 420 - Seminar in Behavioral Neuroscience
- PSY 421 - Seminar in Learning
- PSY 422 - Seminar in Motivation
- PSY 424 - Seminar in Comparative Psychology
- PSY 430 - Seminar in Developmental Psychology
- PSY 431 - Seminar in Adult Development and Aging
- PSY 440 - Seminar in Environmental Psychology
- PSY 441 - Seminar in Cross-Cultural Psychology
- PSY 451 - Seminar in Abnormal Psychology
- Two courses from:
  - PSY 274 - Psychology of Child Rearing
  - PSY 330 - Child Development
  - PSY 332 - Adolescent Development
  - PSY 333 - Infant Development

## Additional Requirements

## Elementary Education Professional Program Requirements (103-104 credits)

Department of Elementary Education, Woodring College of Education

### Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

### Admission and Declaration Process

Admission Requirements

### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

#### Professional Studies Core (25 credits)

- □ ELED 301 - Educational Psychology I: Development and Individual Differences
- □ ELED 302 - Educational Psychology II: Motivation, Learning and Assessment
- □ ELED 310 - Education, Culture, and Equity
- □ ELED 370 - Introduction to Teaching
- □ I T 344 - Basic Instructional Technology Skills
- □ I T 442 - Classroom Use of Instructional Technology (Elementary)
- □ SPED 364 - Teaching Each Student

#### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-79 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators

- MUS 398 - Integrated Arts for Elementary Educators
- THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
  - □ ELED 425 - Social Studies for the Elementary School
  - □ ELED 470 - Developing Teaching
  - □ ELED 471 - Documenting Teaching
  - □ ELED 480 - Literacy: Beginning Communicators
  - □ ELED 481 - Literacy: Fluent Communicators
  - □ ELED 491 - September Experience
  - □ ELED 492 - Practicum: Experience in Literacy Methods
  - □ ELED 494 - Internship - Elementary
  - □ HLED 455 - Health Education Grades K-8
  - □ MATH 381 - Teaching K-8 Mathematics I
  - □ MATH 382 - Teaching K-8 Mathematics II
  - □ MATH 383 - Teaching K-8 Mathematics III
  - □ MATH 491 - Internship Seminar - Teaching K-8 Mathematics
  - □ PE 345 - Physical Education for Elementary School
  - □ SCED 480 - Science Methods and Curriculum for the Elementary School
  - □ SCED 490 - Laboratory/Field Experience in Elementary Science

## Master of Education

### School Counselor, Non-Thesis, MEd

*College of Humanities and Social Sciences*

#### Graduate Faculty

**Bedi, Robinder P.**, PhD, counseling relationships/process/outcomes, substance abuse and dependence, depression.

**Byrne, Christina**, PhD, psychological trauma and intimate partner violence.

**Carroll, Jeffrey B.**, PhD, behavioral neuroscience, molecular basis of metabolic dysfunction in Huntington's Disease.

**Czopp, Alexander M.**, PhD, negative implications for intergroup relations of "positive" stereotypes of groups, prejudice reduction through interpersonal confrontation.

**Devenport, Jennifer**, PhD, legal psychology, jury decision-making, factors influencing erroneous eyewitness identifications.

**Dinnel, Dale L.**, PhD, school and home environment and achievement motivation, personality correlates of happiness and well-being.

**Du Rocher Schudlich, Tina**, PhD, developmental psychopathology, marital conflict and children, parent-child emotion regulation.

**Finlay, Janet M.**, PhD, behavioral neuroscience, biological basis of psychiatric illness.

**Forgays, Deborah K.**, PhD, adolescent development, women's health issues, women and anger across

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development.

**Goodvin, Rebecca**, PhD, early socioemotional development, self-concept, parent-child attachment and communication.

**Graham, James**, PhD, adaptive processes in romantic relationships, romantic love, measurement, multivariate statistics.

**Grimm, Jeffrey W.**, PhD, animal models of drug taking and drug seeking, neurobiology of drug taking and drug seeking.

**Gruman, Diana**, PhD, school counseling, child and adolescent development, educational psychology.

**Haskell, Todd**, PhD, language, visual and auditory perception, cognition.

**Hyman, Ira**, PhD, memory, cognitive psychology, social cognition.

**Jantzen, Kelly J.**, PhD, behavioral and cognitive neuroscience, human environment interactions.

**Jantzen, McNeel Gordon**, PhD, speech perception, speech production, phonological learning, neural reorganization of language.

**King, Jeff**, PhD, cross-cultural psychology, healing processes, ethnic identity.

**Lehman, Barbara**, PhD, childhood family environment and social/psychological health, research methods and statistics.

**Lemm, Kristi**, PhD, implicit attitudes.

**Lewis, Lucy**, PhD, school counseling, social media influences on school adjustment, ethnic identity development and refugee youth.

**Mana, Michael**, PhD, behavioral neuroscience, electrophysiological activity in the locus coeruleus, effects of chronic stress on the central nervous system, development of tolerance to drugs.

**Manago, Adriana, PhD**, adolescent and emerging adult development in the context of culture change and the Digital Age, Latino youth in the U.S. and indigenous Maya youth in Mexico, peer relations, gender and sexual development

**McLean, Kate**, PhD, adolescent identity development.

**Rose, Jacqueline K.**, PhD, molecular mechanisms of learning, memory, and plasticity.

**Sampaio, Cristina**, PhD, mechanisms and processes of memory, representations, memory errors, metacognition.

**Sattler, David**, PhD, natural disasters, social dilemmas, small group research.

**Symons, Lawrence**, PhD, perception.

**Trimble, Joseph E.**, PhD, social, cross-cultural.

Program Advisor: Dr. Diana Gruman, Academic Instructional Center 596

## Program Description

The MEd school counseling program prepares professional counselors for employment in educational settings and is designed for those students intending to apply for the state educational staff associate certificate endorsed in school counseling at the elementary and secondary levels. Certification as a public school teacher is not required for admission to the program. The school counseling program is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP), and the National Council for Accreditation of Teacher Education (NCATE).

The program contains a thesis option for those students interested in pursuing a research project related to the degree program.

## Goals

The program prepares knowledgeable, skilled, culturally sensitive, and ethical professional counselors who meet the relevant licensing or credentialing standards for practice in mental health and public and private educational settings in the State of Washington.

## Prerequisites

The following specific courses are required for those who do not have a degree in psychology: introductory psychology, statistics, abnormal psychology, and child/adolescent development. Deficiencies in prerequisites may be completed after program admission, but must be completed prior to first enrollment.

## Application Information

**Deadlines:** Program faculty will begin reviewing application materials after February 1 and will continue to review materials until the enrollment limit is reached or June 1, whichever comes first. Because maximum student enrollment in the program is limited, all applicants are strongly encouraged to submit application materials by February 1. All prerequisites must be completed prior to fall quarter enrollment. Documentation of personal suitability of applicants for counseling is required through a statement of purpose with specific questions, letters of reference and interviews where possible.

**TA Deadline:** To be considered for a graduate teaching assistantship, applicants must have their application materials submitted by February 1.

**Specific Test Requirements:** Graduate Record Exam, General Test required; subject in psychology recommended; test scores are not required if an applicant holds an advanced degree

## Program Requirements (83 credit minimum)

All students in the school counseling program must complete the following courses:

- PSY 502 - Adult Psychopathology
- PSY 504 - Lifespan Psychological Development
- PSY 532 - Cross-Cultural Counseling
- PSY 542 - Developmental Psychopathology
- PSY 550 - Research Methods in Counseling
- PSY 551 - Developmental School Counseling
- PSY 553 - Theories of Counseling and Psychotherapy
- PSY 554 - Standardized Tests
- PSY 555 - Occupations and Career Development
- PSY 556 - The Role of the School Counselor
- PSY 557 - Testing and Appraisal in Counseling
- PSY 558 - Family and Couple Counseling
- PSY 560 - Family Counseling Lab
- PSY 561 - Seminar: Professional, Legal and Cultural Issues
- PSY 564 - Individual Counseling Techniques
- PSY 565 - Group Processes in Counseling
- PSY 570 - Practicum (4-15 credits)
- PSY 670 - Internship (18-30 credits)
- Electives: 4 elective credits from 400- and 500-level courses in psychology and/or education, to be selected with permission of advisor and instructor
- Written Examinations: Each student is required to satisfactorily write an area comprehensive exam; for information contact the program advisor.

## Additional Information

### *Retention*

The department has requirements affecting retention in the School Counseling Program which are in addition to the Graduate School scholarship standards. Full, continuing enrollment in the required courses must be maintained. Grades lower than C- are unacceptable. More than 10 credits of C+ or lower grades removes a



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student from the master's program. Any course in which an unacceptable grade is earned may be re-taken only with permission of the admission/retention subcommittee, following consultation with the program advisor. It is necessary to maintain at least a 3.00 (B) grade point average for all graded work in order to be retained in the program. Retention in the school counseling program is also dependent upon the development of professional competence in interaction with clients and other professionals. Development of professional counseling competencies is monitored and evaluated on a quarterly basis by the Counseling Program Committee of the Department of Psychology.

## School Counselor, Thesis, MEd

*College of Humanities and Social Sciences*

### Graduate Faculty

**Bedi, Robinder P.**, PhD, counseling relationships/process/outcomes, substance abuse and dependence, depression.

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- PSY 542 - Developmental Psychopathology

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- PSY 550 - Research Methods in Counseling
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- PSY 558 - Family and Couple Counseling
- PSY 560 - Family Counseling Lab
- PSY 561 - Seminar: Professional, Legal and Cultural Issues
- PSY 564 - Individual Counseling Techniques
- PSY 565 - Group Processes in Counseling
- PSY 570 - Practicum [4-15 credits]
- PSY 670 - Internship [18-30 credits]
  - Electives: 4 elective credits from 400- and 500-level courses in psychology and/or education, to be selected with permission of advisor and instructor.
  - Thesis students must also complete:
- PSY 690 - Thesis
  - Written Examinations: Each student is required to satisfactorily write an area comprehensive exam; for information contact the program advisor.

## Additional Information

### Retention

The department has requirements affecting retention in the School Counseling Program which are in addition to the Graduate School scholarship standards. Full, continuing enrollment in the required courses must be maintained. Grades lower than C- are unacceptable. More than 10 credits of C+ or lower grades removes a student from the master's program. Any course in which an unacceptable grade is earned may be re-taken only with permission of the admission/retention subcommittee, following consultation with the program advisor. It is necessary to maintain at least a 3.00 (B) grade point average for all graded work in order to be retained in the program. Retention in the school counseling program is also dependent upon the development of professional competence in interaction with clients and other professionals. Development of professional counseling competencies is monitored and evaluated on a quarterly basis by the Counseling Program Committee of the Department of Psychology.

## Master of Science

### Mental Health Counseling, Non-Thesis, MS

*College of Humanities and Social Sciences*

#### Graduate Faculty

**Bedi, Robinder P.**, PhD, counseling relationships/process/outcomes, substance abuse and dependence, depression.

**Byrne, Christina**, PhD, psychological trauma and intimate partner violence.

**Carroll, Jeffrey B.**, PhD, behavioral neuroscience, molecular basis of metabolic dysfunction in Huntington's Disease.

**Czopp, Alexander M.**, PhD, negative implications for intergroup relations of "positive" stereotypes of groups, prejudice reduction through interpersonal confrontation.

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**Jantzen, McNeel Gordon**, PhD, speech perception, speech production, phonological learning, neural reorganization of language.

**King, Jeff**, PhD, cross-cultural psychology, healing processes, ethnic identity.

**Lehman, Barbara**, PhD, childhood family environment and social/psychological health, research methods and statistics.

**Lemm, Kristi**, PhD, implicit attitudes.

**Lewis, Lucy**, PhD, school counseling, social media influences on school adjustment, ethnic identity development and refugee youth.

**Mana, Michael**, PhD, behavioral neuroscience, electrophysiological activity in the locus coeruleus, effects of chronic stress on the central nervous system, development of tolerance to drugs.

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**Sattler, David**, PhD, natural disasters, social dilemmas, small group research.

**Symons, Lawrence**, PhD, perception

**Trimble, Joseph E.**, PhD, social, cross-cultural

Program Advisor: Dr. Christina Byrne, Academic Instructional Center 474

### Program Description

The MS Mental Health Counseling program prepares students for careers in the field of mental health and is accredited by CACREP. The program provides a general foundation in theoretical and applied perspectives which are used by mental health professionals. Special emphasis is placed on skill development, supervised practica with adults, children, and families, and on-site internships in various community and mental health clinics. Exposure to crosscultural counseling strategies is an important component of the curriculum.

# PSYCHOLOGY

## Goals

The program prepares knowledgeable, skilled, culturally sensitive, and ethical professional counselors who meet the relevant licensing or credentialing standards for practice in mental health and public and private educational settings in the State of Washington.

## Prerequisites

Courses in introductory psychology and statistics and research design are required. The following courses are strongly recommended: one course in abnormal or personality; one course in social or developmental; two courses from learning, sensation, perception, motivation and physiological/behavioral neuroscience; a course in the history and systems of psychology or in philosophy of science.

## Application Information

**Deadlines:** Program faculty will begin reviewing application materials after February 1 and will continue to review materials until the enrollment limit is reached or June 1, whichever comes first. Because maximum student enrollment in the program is limited, all applicants are strongly encouraged to submit application materials by February 1. Documentation of personal suitability of applications for counseling is required through a statement of purpose with specific questions and letters of reference. Top-ranked applicants will be invited to interview.

**TA Deadline:** To be considered for a graduate teaching assistantship, applicants must submit their application materials by February 1.

**Specific Test Requirements:** Graduate Record Examination, General required; subject in psychology recommended; no test scores are required if an applicant holds an advanced degree.

## Program Requirements (91 credits)

### □ Required Courses:

- PSY 502 - Adult Psychopathology
  - PSY 504 - Lifespan Psychological Development
  - PSY 512 - Correlation Methods and Data Analysis
  - PSY 532 - Cross-Cultural Counseling
  - PSY 542 - Developmental Psychopathology
  - PSY 550 - Research Methods in Counseling (3 credits)
  - PSY 553 - Theories of Counseling and Psychotherapy
  - PSY 554 - Standardized Tests
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  - PSY 561 - Seminar: Professional, Legal and Cultural Issues
  - PSY 564 - Individual Counseling Techniques
  - PSY 565 - Group Processes in Counseling
  - PSY 567 - Professional Practice of Counseling
  - PSY 570 - Practicum (4-15 credits)
  - PSY 670 - Internship (24-30 credits)
- All students must complete either:
- PSY 503 - Cognition or
  - PSY 505 - Social Psychology

Written Examination: Each student choosing the non-thesis option is required to satisfactorily write an area comprehensive exam. For information, contact the program advisor.

### Retention Requirements

The department has requirements affecting retention in the Mental Health Counseling Program which are in addition to the Graduate School scholarship standards. Full, continuing enrollment in the required courses must be maintained. Grades lower than C- are unacceptable. More than 10 credits of C+ or lower grades removes a student from the master's program. Any course in which an unacceptable grade is earned may be retaken only with permission of the admission/retention subcommittee, following consultation with the program advisor. It is necessary to maintain at least a 3.00 (B) grade point average for all graded work in order to be retained in the program. Retention in the mental health counseling curriculum is also dependent upon the development of professional competence in interaction with clients and other professionals. Development of professional counseling competencies is monitored and evaluated on a quarterly basis by the Counseling Program Committee of the Department of Psychology.

## Mental Health Counseling, Thesis, MS

*College of Humanities and Social Sciences*

### Graduate Faculty

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**Jantzen, McNeel Gordon**, PhD, speech perception, speech production, phonological learning, neural reorganization of language.

**King, Jeff**, PhD, cross-cultural psychology, healing processes, ethnic identity.

# PSYCHOLOGY

**Lehman, Barbara**, PhD, childhood family environment and social/psychological health, research methods and statistics.

**Lemm, Kristi**, PhD, implicit attitudes.

**Lewis, Lucy**, PhD, school counseling, social media influences on school adjustment, ethnic identity development and refugee youth.

**Mana, Michael**, PhD, behavioral neuroscience, electrophysiological activity in the locus coeruleus, effects of chronic stress on the central nervous system, development of tolerance to drugs.

**Manago, Adriana, PhD**, adolescent and emerging adult development in the context of culture change and the Digital Age, Latino youth in the U.S. and indigenous Maya youth in Mexico, peer relations, gender and sexual development

**McLean, Kate**, PhD, adolescent identity development.

**Rose, Jacqueline K.**, PhD, molecular mechanisms of learning, memory, and plasticity.

**Sampaio, Cristina**, PhD, mechanisms and processes of memory, representations, memory errors, metacognition.

**Sattler, David**, PhD, natural disasters, social dilemmas, small group research.

**Symons, Lawrence**, PhD, perception

**Trimble, Joseph, E.**, PhD, social cross-cultural

Program Advisor: Dr. Christina Byrne, Academic Instructional Center 474

## Program Description

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## Goals

The program prepares knowledgeable, skilled, culturally sensitive, and ethical professional counselors who meet the relevant licensing or credentialing standards for practice in mental health and public and private educational settings in the State of Washington.

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**TA Deadline:** To be considered for a graduate teaching assistantship, applicants must submit their application materials by February 1.

**Specific Test Requirements:** Graduate Record Examination, General required; subject in psychology recommended; no test scores are required if an applicant holds an advanced degree.

## Program Requirements (97 credits)

 Required Courses:

- PSY 502 - Adult Psychopathology
- PSY 504 - Lifespan Psychological Development
- PSY 512 - Correlation Methods and Data Analysis
- PSY 532 - Cross-Cultural Counseling
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- PSY 550 - Research Methods in Counseling (3 credits)
- PSY 553 - Theories of Counseling and Psychotherapy
- PSY 554 - Standardized Tests
- PSY 555 - Occupations and Career Development
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- PSY 560 - Family Counseling Lab (3 credits)
- PSY 561 - Seminar: Professional, Legal and Cultural Issues
- PSY 564 - Individual Counseling Techniques
- PSY 565 - Group Processes in Counseling
- PSY 567 - Professional Practice of Counseling
- PSY 570 - Practicum (4-15 credits)
- PSY 670 - Internship (24-30 credits)

 All students must complete either:

- PSY 503 - Cognition
- or
- PSY 505 - Social Psychology

 Thesis students must complete 690 (minimum 6 credits).

## Retention Requirements

The department has requirements affecting retention in the Mental Health Counseling Program which are in addition to the Graduate School scholarship standards. Full, continuing enrollment in the required courses must be maintained. Grades lower than C- are unacceptable. More than 10 credits of C+ or lower grades removes a student from the master's program. Any course in which an unacceptable grade is earned may be retaken only with permission of the admission/retention subcommittee, following consultation with the program advisor. It is necessary to maintain at least a 3.00 (B) grade point average for all graded work in order to be retained in the program. Retention in the mental health counseling curriculum is also dependent upon the development of professional competence in interaction with clients and other professionals. Development of professional counseling competencies is monitored and evaluated on a quarterly basis by the Counseling Program Committee of the Department of Psychology.

## Psychology - Experimental, Thesis, MS

*College of Humanities and Social Sciences*

### Graduate Faculty

**Bedi, Robinder P.**, PhD, counseling relationships/process/outcomes, substance abuse and dependence, depression.

**Byrne, Christina**, PhD, psychological trauma and intimate partner violence.

**Carroll, Jeffrey B.**, PhD, behavioral neuroscience, molecular basis of metabolic dysfunction in Huntington's



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Disease.

**Czopp, Alexander M.**, PhD, negative implications for intergroup relations of "positive" stereotypes of groups, prejudice reduction through interpersonal confrontation.

**Devenport, Jennifer**, PhD, legal psychology, jury decision-making, factors influencing erroneous eyewitness identifications.

**Dinnel, Dale L.**, PhD, school and home environment and achievement motivation, personality correlates of happiness and well-being.

**Du Rocher Schudlich, Tina**, PhD, developmental psychopathology, marital conflict and children, parent-child emotion regulation.

**Finlay, Janet M.**, PhD, behavioral neuroscience, biological basis of psychiatric illness.

**Forgays, Deborah K.**, PhD, adolescent development, women's health issues, women and anger across development.

**Goodvin, Rebecca**, PhD, early socioemotional development, self-concept, parent-child attachment and communication.

**Graham, James**, PhD, adaptive processes in romantic relationships, romantic love, measurement, multivariate statistics.

**Grimm, Jeffrey W.**, PhD, animal models of drug taking and drug seeking, neurobiology of drug taking and drug seeking.

**Gruman, Diana**, PhD, school counseling, child and adolescent development, educational psychology.

**Haskell, Todd**, PhD, language, visual and auditory perception, cognition.

**Hyman, Ira**, PhD, memory, cognitive psychology, social cognition.

**Jantzen, Kelly J.**, PhD, behavioral and cognitive neuroscience, human environment interactions.

**Jantzen, McNeel Gordon**, PhD, speech perception, speech production, phonological learning, neural reorganization of language.

**King, Jeff**, PhD, cross-cultural psychology, healing processes, ethnic identity.

**Lehman, Barbara**, PhD, childhood family environment and social/psychological health, research methods and statistics.

**Lemm, Kristi**, PhD, implicit attitudes.

**Lewis, Lucy**, PhD, school counseling, social media influences on school adjustment, ethnic identity development and refugee youth.

**Mana, Michael**, PhD, behavioral neuroscience, electrophysiological activity in the locus coeruleus, effects of chronic stress on the central nervous system, development of tolerance to drugs.

**Manago, Adriana, PhD**, adolescent and emerging adult development in the context of culture change and the Digital Age, Latino youth in the U.S. and indigenous Maya youth in Mexico, peer relations, gender and sexual development.

**McLean, Kate**, PhD, adolescent identity development.

**Rose, Jacqueline K.**, PhD, molecular mechanisms of learning, memory, and plasticity.

**Sampaio, Cristina**, PhD, mechanisms and processes of memory, representations, memory errors, metacognition.

**Sattler, David**, PhD, natural disasters, social dilemmas, small group research.

**Symons, Lawrence**, PhD, perception.

**Trimble, Joseph E.**, PhD, social, cross-cultural.

Program Advisor: Dr. Kate McLean, Academic Instructional Center 180.

## Program Description

The Experimental Psychology program provides a solid preparation and foundation for students wishing to enter a psychology Ph.D. program. Students who obtain a terminal Masters degree in Experimental Psychology may use their graduate training to become community college instructors, statisticians, research assistants, or use the degree in other settings.

## Goals

The graduate curriculum leading to an MS degree in experimental psychology is designed to provide in-depth research experience within specific domains of psychology: cognitive, social, developmental, and neuroscience. This goal is accomplished through a balance of required content and research courses.

## Prerequisites

Introductory psychology, statistics, and a minimum of one course in each of three of the following concentration areas: social, cognitive, abnormal, developmental, and physiological/behavioral neuroscience. Research experience is strongly recommended.

## Application Information

**Deadlines:** Program faculty will begin reviewing application materials after February 1 and will continue to review materials until the enrollment limit is reached or June 1, whichever comes first. Because maximum student enrollment in the program is limited, all applicants are strongly encouraged to submit application materials by February 1.

**TA Deadline:** To be considered for a graduate teaching assistantship, applicants must submit their application materials by February 1.

**Specific Test Requirements:** Graduate Record Examination, General required; subject test in psychology recommended; no test scores are required if an applicant holds an advanced degree.

Program Requirements: (48 credit minimum)

- All students must complete the following courses:
    - PSY 509 - Proseminar
    - PSY 512 - Correlation Methods and Data Analysis
    - PSY 513 - Experimental Methods and Data Analysis
  - Three courses from:
    - PSY 501 - Behavioral Neuroscience
    - PSY 503 - Cognition
    - PSY 504 - Lifespan Psychological Development
    - PSY 505 - Social Psychology
  - Three seminars from 532-546 (students must take seminars with at least two different numbers; seminars 541 and 543-546 are repeatable under different topics, with permission); or course substitutions under advisements
    - PSY 582 - Practicum in Research in Psychology (2 to 12 credits across two quarters)
    - PSY 690 - Thesis (6 to 12 credits)
  - Elective courses under advisement
  - A minimum of one research presentation at Psychfest or a public colloquium as part of the thesis defense is required.
- An optional concentration offered to all experimental psychology graduate students is Measurement, Evaluation and Statistical Analysis (MESA). In addition to the above requirements, students take the following: PSY 515, 516, and 554.

## Retention Requirements

The department has requirements affecting retention in the MS Experimental Psychology Program which are in addition to the Graduate School scholarship standards. Students in the Experimental Psychology program must be making satisfactory progress in their research to remain in the program. Satisfactory progress in research is defined as being actively engaged in research activities that are moving the student closer to completing his or her thesis and is determined by the student's advisor and the Experimental Psychology

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program advisor (or the Experimental Psychology program advisor and the general graduate program advisor, if the student does not have an advisor). One quarter of unsatisfactory progress will result in the student being notified as to what he or she needs to do to bring his or her research progress up to satisfactory standards. Two quarters of unsatisfactory progress in research are grounds for dismissal from the Experimental Psychology program. Students may appeal any decision through the formal appeal process outlined in the WWU Catalog (Appendix F).

## Minor

### Psychology Minor

Department of Psychology, College of Humanities and Social Sciences

#### 24 credits

#### Introduction/What is the Study of Psychology?

#### Why Consider a Psychology Minor?

##### Contact Information

##### Department Chair

Dr. Larry Symons

Academic Instruction Center 440

360-650-4019

Larry.Symons@wwu.edu

##### Sample Careers

##### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

The Minor in Psychology can be declared at any time. Students must go to the Psychology Department Office in the Academic Instruction Center (AIC) 434 to obtain the forms for declaration.

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- PSY 101 - Introduction to Psychology
- One course from:
  - PSY 210 - Cognition
  - PSY 220 - Introduction to Behavioral Neuroscience
- One course from:
  - PSY 230 - Lifespan Developmental Psychology
  - PSY 240 - Social Psychology
  - PSY 250 - Introduction to Abnormal Psychology
- Electives under advisement

## **Sport Psychology Minor (see Physical Education, Health & Recreation Department)**

Sport Psychology Minor (see Physical Education, Health & Recreation Department)

## **User Experience (UX) Design Minor (see Engineering Technology Department)**

User Experience (UX) Design Minor (see Engineering Technology Department)

## **Psychology Courses**

### **PSY 101 - Introduction to Psychology**

Examination of basic psychological processes utilizing results of research investigations: participation in at least two experiments or equivalent activities is expected.

Credits: 5

GUR Attributes: SSC

### **PSY 116 - Human Sexuality**

This course examines human sexual behavior from biological, psychological, social, and cultural perspectives. Course content includes issues pertaining to sexual anatomy, the sexual response cycle, sexual orientation, sexuality across the lifespan, the reproductive process, variations in sexual behavior, sexual health, romantic relationship processes, and sexual violence.

Credits: 5

GUR Attributes: SSC

### **PSY 117 - The Psychology of Identity**

This course examines the development of identity throughout the lifespan with consideration of gender, social class, ethnicity, culture, autobiographical memory, social roles, and self-presentation.

Credits: 5

GUR Attributes: SSC

### **PSY 118 - The Psychology of Happiness and Well-Being**

In this course, students will address the question of what comprises happiness and a sense of well-being in life. In particular, students will be exposed to the scientific literature on happiness and well-

being within the framework of philosophical perspectives on life. Students will compare and contrast the findings on happiness and well-being in the scientific literature with advice provided in the various popular sources of information (e.g. self-help books, self-help websites, magazines, popular self-help television programs).

Credits: 5

### **PSY 119 - Psychology of Gender**

Basic concepts, foundations for sex roles; similarities and differences between the sexes; historical customs, personality theories, cultural, subcultural and cross-cultural perspectives

Credits: 4

GUR Attributes: BCGM

### **PSY 210 - Cognition**

Provides an overview of the theories, methods and practical applications of cognitive psychology. The higher mental processes, particularly the ways in which knowledge is acquired, stored and used, will be emphasized. The course also examines how theories and findings from cognitive psychology can help us to understand mental activities in everyday life.

**Prerequisites & Notes:** PSY 101

Credits: 5

### **PSY 220 - Introduction to Behavioral Neuroscience**

An overview of the biological bases of behavior. Basic concepts in neuroanatomy, neurophysiology, and neurochemistry will be used to understand the neural bases of normal and abnormal behavior.

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**Prerequisites & Notes:** PSY 101

Credits: 5

## **PSY 230 - Lifespan Developmental Psychology**

This class covers biological, cognitive, and psychosocial changes that occur across different periods of life, as well as contexts of development (e.g., culture, school, families, peers). Topics include basic developmental tasks from infancy to old age and theories of development.

**Prerequisites & Notes:** PSY 101.

Credits: 5

## **PSY 240 - Social Psychology**

Socialization (moral development, racial, ethnic and class differences), attitudes and attitude change, conformity, interpersonal attraction. Theories and methods of social psychology stressing applicability of social psychological research and knowledge to contemporary social problems.

**Prerequisites & Notes:** PSY 101

Credits: 5

## **PSY 250 - Introduction to Abnormal Psychology**

An overview of the research on individuals within social contexts. Topics include description of disorders, stress and coping, social influence on behavior, the relationship between psychological and physical health and development adjustment issues.

**Prerequisites & Notes:** PSY 101

Credits: 5

## **PSY 274 - Psychology of Child Rearing**

Discipline at different developmental stages; parental influences on social and cognitive development; influences on parenting; a systems approach to understanding families; the changing American family.

**Prerequisites & Notes:** PSY 101.

Credits: 5

## **PSY 301 - Overview of Research Methods**

Introduction to research psychology. A variety of research methodologies will be explored. Students will also learn basic description of research data and how to write psychology papers.

**Prerequisites & Notes:** 15 credits in psychology with a minimum of 5 credits at Western and declared pre-major status.

Credits: 5

## **PSY 302 - Research Methods and Statistical Analysis: Correlational Approaches**

Introduction to correlational research methods in psychology and associated statistics. Review of correlational research methods, design of correlational studies, and development of research instruments such as questionnaires and behavioral observation forms. Methods of data analysis include graphs, bivariate and multivariate descriptive correlational statistics, sampling distributions of statistical inference regarding correlations, and introduction to the t and F tests. Nonparametric statistics such as chi square also will be discussed.

**Prerequisites & Notes:** PSY 301 with a C- or better and declared Psychology Major or declared Behavioral Neuroscience Major.

Credits: 5

## **PSY 303 - Research Methods and Statistical Analysis: Experimental Approaches**

Continuation of statistical inferencing introduced in PSY 302 as it applies to the special cases of the general linear model. Two sample t-tests and ANOVA models will be introduced at the conceptual and computational level. Appropriate follow-up tests also will be covered. Computer data analysis will be utilized for problem sets and the individual project.

**Prerequisites & Notes:** PSY 302 with a C- or better and declared Psychology Major and PSY 210, 220, 230, 240, 250, each with C- or better; or PSY 301 with a C- or better and declared Behavioral Neuroscience Major.

Credits: 5

## **PSY 310 - Sensation and Perception**

The basic principles involved in seeing, hearing, touch, taste and smell will be presented. Ecological

constraints on perceptual processes will be discussed in the context of illusions and other perceptual demonstrations as well as underlying physiological mechanisms.

**Prerequisites & Notes:** PSY 210; PSY 220; and PSY 301 or declared Behavioral Neuroscience Major and PSY 301.

Credits: 5

### **PSY 311 - Human Memory**

Reviews memory theories, empirical findings, and applications. Topics include encoding, storage, and retrieval from short- and long-term memory; implicit and explicit memory; autobiographical memory; eyewitness memory.

**Prerequisites & Notes:** PSY 210, PSY 301

Credits: 5

### **PSY 318 - Psychology of Language**

An overview of the psychological study of language. Topics include language comprehension, language acquisition, speech errors, bilingualism, dyslexia, language and the brain, and animal communication systems.

**Prerequisites & Notes:** PSY 210 and PSY 220 and PSY 301.

Credits: 5

### **PSY 319 - Cognitive Neuroscience**

Discussion of the brain systems underlying human cognition, with a focus on how inferences about brain systems are drawn from neuropathological, neuroimaging, and behavioral studies.

**Prerequisites & Notes:** PSY 210, PSY 220, and PSY 301 or declared Behavioral Neuroscience and PSY 301. Available to Sport Psychology students with instructor permission.

Credits: 5

### **PSY 320 - Topics in Behavioral Neuroscience**

Detailed examination of key areas of physiological psychology, emphasizing the anatomical, physiological and neurochemical bases of behavior.

**Prerequisites & Notes:** PSY 220; PSY 301 or comparable research course; instructor permission

Credits: 5

### **PSY 321 - Learning**

A survey of conditioning and learning.

**Prerequisites & Notes:** PSY 220 and PSY 301

Credits: 5

### **PSY 322 - Motivation**

Theoretical and empirical study of human and subhuman motivational process. Topics covered range from basic physiological drives to achievement motivation and conformity. Emphasis on both biological and social sources of motivation.

**Prerequisites & Notes:** PSY 220 and PSY 301.

Available to Sport Psychology students with instructor permission.

Credits: 5

### **PSY 323 - Psychopharmacology**

Introduction to behavioral pharmacology and the effects of therapeutic and recreational drugs on the function of the nervous system and behavior.

**Prerequisites & Notes:** PSY 220; PSY 301 or comparable research course and instructor

permission. Available to Sport Psychology students with instructor permission.

Credits: 5

### **PSY 324 - Comparative Psychology**

A phylogenetic comparison of animal behavior, focusing on learning, motivation and sensory processes in selected species of animals.

**Prerequisites & Notes:** PSY 210 or PSY 220; and PSY 301

Credits: 5

### **PSY 327 - Cognitive Neuroscience Lab**

Introduction to laboratory methods and techniques used in cognitive neuroscience. Concentration will be on large scale brain imaging of cognition using EEG. Students will collect and analyze data from participants undergoing a broad range of cognitive paradigms.

**Prerequisites & Notes:** PSY 220 and one of PSY 310, PSY 311, PSY 319, or PSY 320.

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Credits: 4

## **PSY 328 - Techniques in Behavioral Neuroscience**

Introduction to laboratory methods and techniques used in behavioral neuroscience. Two hours lecture and four hours lab each week; students will be introduced to basic techniques in histology, neurophysiology, neurochemistry, molecular biology, or behavioral analyses. May require live animal research. Repeatable to a maximum of 8 credits.

**Prerequisites & Notes:** PSY 320 or PSY 323 or instructor permission.

Credits: 4

## **PSY 330 - Child Development**

In-depth coverage of social and cognitive development in children and adolescents. Emphasis on the implications and practical applications of research findings in these areas.

**Prerequisites & Notes:** PSY 230 and PSY 301  
Credits: 5

## **PSY 331 - Adult Development and Aging**

Examines developmental processes that occur in later life, with a focus on theory, research and practical issues. Topics include a) theoretical and methodological issues, b) biological changes and health issues, c) changes in memory and intelligence, d) personality across adulthood and e) death and dying.

**Prerequisites & Notes:** PSY 230, PSY 301  
Credits: 5

## **PSY 332 - Adolescent Development**

Examines adolescent cognitive, social, physiological and intrapsychic development from a variety of theoretical perspectives. Emphasis on current research findings in this area. Students cannot get credit for both PSY 332 and 373.

**Prerequisites & Notes:** PSY 230 and PSY 301. Available to Sport Psychology students with permission of instructor.  
Credits: 5

## **PSY 333 - Infant Development**

Examines social, emotional, cognitive, and physical development of infants and toddlers from diverse theoretical perspectives and methodological approaches. Emphasis on current research findings, application of research findings, and considering infant development in socio-cultural context.

**Prerequisites & Notes:** PSY 230 and PSY 301.  
Credits: 5

## **PSY 340 - Environmental Psychology**

Theoretical, methodological and empirical problems and issues relating to behavior in constructed and natural environments.

**Prerequisites & Notes:** PSY 301 plus one from PSY 210-250  
Credits: 5

## **PSY 341 - Psychology and Culture**

Cultural and ecological factors and their effect on perception, thinking, language, intelligence, sexuality and other psychological variables. An examination of the 'universality' of traditional Euro-American psychological theories.

**Prerequisites & Notes:** PSY 240 and PSY 301. Available to Sport Psychology students with instructor permission.  
Credits: 5  
GUR Attributes: SSC

## **PSY 342 - Social Cognition**

Survey of theory and research investigating the cognitive processes that underlie social judgment and behavior.

**Prerequisites & Notes:** PSY 210, PSY 240, PSY 301  
Credits: 5

## **PSY 343 - Social Processes**

Examination of selected topics related to formation and functioning of groups, as well as intergroup relations.

**Prerequisites & Notes:** PSY 240, PSY 301  
Credits: 5

## **PSY 344 - Psychology and the Law**

An examination of current issues in psychology and the law with an emphasis on the application of social psychological theories and research to the understanding of human behavior in a legal context.

**Prerequisites & Notes:** PSY 240, PSY 301  
Credits: 5

### **PSY 345 - Evolutionary Psychology**

The application of evolutionary theory to understanding the characteristics of human functioning including emotion, thinking, and action.

**Prerequisites & Notes:** One course from PSY 210 to PSY 240; C- or better in PSY 301.  
Credits: 5

### **PSY 346 - Stereotyping, Prejudice, & Discrimination**

This course will examine issues of and related to stereotyping, prejudice, and discrimination from a social psychological perspective with an emphasis on racism and sexism.

**Prerequisites & Notes:** PSY 240, PSY 301  
Credits: 5

### **PSY 351 - Abnormal Psychology and Interventions**

Human behavior patterns culturally labeled as abnormalities, or as mental illness; their etiology, incidence, treatment and social attitudes toward such patterns. Historical review of the concepts used to explain such behavior and the research relating to the treatment of mental disorders.

**Prerequisites & Notes:** PSY 250, PSY 301  
Credits: 5

### **PSY 359 - Introduction to School and Mental Health Counseling**

Overview of professional counseling in schools, colleges and communities. Includes counselor roles, ethics, counseling theories and techniques, training and licensing, counseling minorities, outreach, use of paraprofessionals and research.

**Prerequisites & Notes:** PSY 250, PSY 301; major  
Credits: 4

### **PSY 370 - Psychology and the Arts**

Concepts from a wide variety of areas in psychology are used to analyze issues in art. Specific works of art - which may include literature, music and visual arts - are considered through class discussion and written essay.

**Prerequisites & Notes:** PSY 101  
Credits: 3

### **PSY 375 - Health Psychology**

The course examines health psychology with a focus on theory, research, and practical issues. Topics include (a) health behavior and prevention, (b) stress and coping, (c) the treatment setting, and (d) management of chronic and terminal illness.

**Prerequisites & Notes:** PSY 101 and PSY 301. Available to Sport Psychology students with instructor permission.  
Credits: 5

### **PSY 376 - Psychology of Romantic Relationships**

An overview of the psychology of romantic relationships. Topics bridge social and abnormal psychology and include attraction, relationship formation, maintenance, and dissolution, and theoretical approaches to the clinical treatment of couples' issues.

**Prerequisites & Notes:** PSY 240, PSY 250 and PSY 301.  
Credits: 5

### **PSY 377 - Positive Psychology**

This course is a survey of the science of positive psychology which explores the study of human strengths and virtues. The focus of the course is on the unique characteristics of the human experience that contribute to the physical/psychological health and well-being.

**Prerequisites & Notes:** PSY 301. Available to Sport Psychology students with instructor permission.  
Credits: 5

### **PSY 378 - Personality Psychology**



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This course examines the fundamental issues and questions addressed by the field of personality psychology, considering evidence from several major theoretical approaches to personality (e.g., trait, social-cognitive, motivational, developmental, narrative), and situating personality within biological, social, and cultural contexts.

**Prerequisites & Notes:** PSY 230; PSY 240; PSY 301 or permission of instructor.  
Credits: 5

**PSY 410 - Seminar in Cognitive Neuroscience**  
In-depth coverage of major issues and methods in the study of cognitive neuroscience. Library and laboratory or field research.

**Prerequisites & Notes:** For PSY majors: PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303, and one of PSY 310, PSY 311, PSY 319 or PSY 320, all with a C- or better. For Behavioral Neuroscience majors: permission of instructor and one of PSY 310, PSY 311, PSY 319 or PSY 320, all with a C- or better.  
Credits: 5

**PSY 411 - Seminar in Cognition**  
In-depth coverage of selected topics in memory, cognition, and higher order cognitive processing. Library and laboratory or field research.

**Prerequisites & Notes:** PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303; and one of PSY 310, PSY 311, PSY 318, PSY 319 or PSY 320, all with a C- or better.  
Credits: 5

**PSY 420 - Seminar in Behavioral Neuroscience**  
A detailed examination of brain-behavior relations and the neural bases of behavior, based upon review and discussion of current literature in a variety of areas. Library and/or laboratory work.

**Prerequisites & Notes:** For PSY majors: PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303; one of PSY 310, PSY 319, PSY 320, PSY 321, PSY 322, PSY 323, or PSY 324 all with C- or better. For Behavioral Science majors: permission of instructor and one of PSY 310, PSY 319, PSY 320, PSY 321, PSY 322, PSY 323, or PSY 324, all with a

C- or better.  
Credits: 5

**PSY 421 - Seminar in Learning**  
In-depth study of major theoretical and methodological approaches to the study of learning. Laboratory and field research exercises.

**Prerequisites & Notes:** For PSY majors: PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303, PSY 321, all with a C- or better. For Behavioral Neuroscience majors: permission of instructor and PSY 303, PSY 321, all with a C- or better. For Behavioral  
Credits: 5

**PSY 422 - Seminar in Motivation**  
In-depth coverage of determinants of behavior in humans and other animals. Students will examine primary research and will conduct research. Activities will also include class discussion, presentations, and a major integration paper.

**Prerequisites & Notes:** For PSY majors: PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303, and PSY 322, all with a C- or better. For Behavioral Neuroscience majors: permission of instructor and PSY 303, and PSY 322, all with a C- or better.  
Credits: 5

**PSY 424 - Seminar in Comparative Psychology**  
In-depth study of animal behavior where different species in different ecological niches is a major variable. Emphasis on the genetic determinants of behavior differences. Students will examine primary research and will conduct research. Activities will also include class discussion, presentations, and a major integration paper.

**Prerequisites & Notes:** For PSY majors: PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303, PSY 324, all with a C- or better. For Behavioral Neuroscience majors: permission of instructor and PSY 303, PSY 324, all with a C- or better.  
Credits: 5

**PSY 428 - Advanced Techniques in Behavioral Neuroscience**

Laboratory based study of integrated neural systems underlying behavior, based on advanced techniques in histology, neurophysiology, neurochemistry, molecular biology, or behavioral analyses. Two hours lecture and four hours lab each week; may require live animal research. Repeatable to a maximum of 8 credits.

**Prerequisites & Notes:** PSY 303 and PSY 328 or instructor permission.  
Credits: 4

### **PSY 430 - Seminar in Developmental Psychology**

In-depth study of central themes of human development. Contemporary research questions addressed in professional literature and field investigations.

**Prerequisites & Notes:** PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303; PSY 330 or PSY 331 or PSY 332 or PSY 333, all with C- or better.  
Credits: 5

### **PSY 431 - Seminar in Adult Development and Aging**

In-depth study of central themes of adult development and aging. Contemporary research questions addressed in professional literature and field investigations.

**Prerequisites & Notes:** PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303, PSY 331, all with a C- or better.  
Credits: 5

### **PSY 440 - Seminar in Environmental Psychology**

In-depth study of major issues and methods in the study of psychosocial adaptations to and of the physical environment. Library and laboratory or field research.

**Prerequisites & Notes:** PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303, PSY 340, all with a C- or better.  
Credits: 5

### **PSY 441 - Seminar in Cross-Cultural Psychology**

In-depth study of contemporary issues, perspectives, and methods used in the study of how cultural and ethnic factors affect psychological processes. A basic examination of current topics that are receiving significant attention. Library and/or laboratory and field research.

**Prerequisites & Notes:** PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303; and one of PSY 341, PSY 342, PSY 343, PSY 344, PSY 345, or PSY 346, all with C- or better.  
Credits: 5

### **PSY 442 - Seminar in Social Psychology**

In-depth study of social psychological theory and research to explain patterns of thought and behavior.

**Prerequisites & Notes:** PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303; and one of PSY 341, PSY 342, PSY 343, PSY 344, or PSY 345, PSY 346, all with C- or better.  
Credits: 5

### **PSY 451 - Seminar in Abnormal Psychology**

Advanced study in major issues and research methods in abnormal psychology. Focus on research design and protocols with clinical populations.

**Prerequisites & Notes:** PSY 210, PSY 220, PSY 230, PSY 240, PSY 250, PSY 303, PSY 351, all with a C- or better.  
Credits: 5

### **PSY 470 - Psychological Issues in Substance Abuse and Dependence**

This class provides advanced information about psychological issues in substance abuse and dependence. In addition to surveying the most common substances of abuse and their effects, this course also addresses etiological theories, assessment and diagnosis, treatment, issues pertinent to diverse groups of individuals, and current controversies in the field.

**Prerequisites & Notes:** PSY 250 and PSY 351, or current enrollment in the graduate Mental Health or School Counseling Programs.  
Credits: 3

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## **PSY 471 - Honors Thesis Seminar**

In-depth investigation of a selected topic in psychology culminating in an honors thesis. Should be taken the quarter before the thesis is begun and while it is in progress. Repeatable to a maximum of 6 cr. S/U grading.

**Prerequisites & Notes:** instructor permission  
Credits: 2  
Grade Mode: S/U

## **PSY 478 - Understanding Healing Processes across Cultures**

The course will overview systems of healing as they are utilized globally, identify common and uncommon elements of healing and relate these to psychotherapeutic processes.

**Prerequisites & Notes:** PSY 301 or equivalent; junior status.  
Credits: 3

## **PSY 481 - Seminar in History and Systems of Psychology**

An historical perspective of the development of psychological systems and theories and their impact on contemporary psychology.

**Prerequisites & Notes:** C- or better in: PSY 210-250, PSY 302 plus completion of 45 credits in psychology.  
Credits: 4

## **PSY 482 - Seminar in Psychological Theory**

A seminar examining the philosophical assumptions of science in general and psychology in particular.

**Prerequisites & Notes:** C- or better in: PSY 210-250, PSY 302 plus completion of 45 credits in psychology.  
Credits: 4

## **PSY 501 - Behavioral Neuroscience**

Examines the basic anatomy, physiology and chemistry of the vertebrate nervous system within the context of both abnormal and normal behaviors. Topics vary but include sensory and motor systems, reward pathways, substance abuse, neural correlates of major mental illness, and regeneration/recovery of function in the

central nervous system.

**Prerequisites & Notes:** admission to MS or MEd program in psychology  
Credits: 4

## **PSY 502 - Adult Psychopathology**

Consideration of theories relevant for understanding adult psychopathology. Current research into classification, etiology, description, diagnosis and treatment of behavioral and mental disorders. Overall orientation is to seek integration of cultural, social, psychological and physiological processes into resultant patterns of personal, social and behavioral maladaptations. Course content selected on basis of greatest utility for preparation of Master's level counselors in training.

**Prerequisites & Notes:** admission to MS or MEd program in psychology or instructor permission  
Credits: 5

## **PSY 503 - Cognition**

Provides an overview of theories, research and applications of cognitive psychology. Topics covered range from basic perception through higher mental processes.

**Prerequisites & Notes:** admission to MS or MEd program in psychology or instructor permission  
Credits: 4

## **PSY 504 - Lifespan Psychological Development**

An overview of the major theories and principles in developmental psychology. Theories, issues and principles are highlighted through an analysis of various topics across the lifespan and as they affect the psychological development of the individual.

**Prerequisites & Notes:** admission to MS or MEd program in psychology or instructor permission  
Credits: 4

## **PSY 505 - Social Psychology**

Designed to provide a thorough background in social psychology and to motivate a continuing exploration of theoretical problems and issues in the field. Students will be exposed to historical and contemporary theories and methods in social

psychology.

**Prerequisites & Notes:** admission to MS or MEd program in psychology or instructor permission  
Credits: 4

#### **PSY 509 - Proseminar**

Introduction to professional oral presentation, through a range of designs/methodologies. Individual faculty will present ongoing research. Each student will be required to make at least one oral presentation outlining their current research focus. S/U grading.

**Prerequisites & Notes:** admission to MS program in psychology (Experimental) or instructor permission  
Credits: 2  
Grade Mode: S/U

#### **PSY 512 - Correlation Methods and Data Analysis**

Covers topics in bivariate and multivariate correlation and regression. Students learn to design correlation studies and to analyze correlational data involving one dependent variable and one or more independent variables. Indices covered include regression coefficients, bivariate product-moment correlations and their special cases, partial and semi-partial correlations, and multiple correlations/regression. Use of computer-based statistical software packages for data analysis and interpretation is stressed.

**Prerequisites & Notes:** admission to MS program in psychology or instructor permission  
Credits: 4

#### **PSY 513 - Experimental Methods and Data Analysis**

Introduces ANOVA models as special cases of the General Linear Model and covers topics in the bivariate distribution. Includes basic topics in research design and data analysis; those ANOVA designs that represent a large portion of published research; the theoretical and mathematical issues that are of concern to the modern researcher. Computer examples of data analysis using computer-based statistical software are used to provide practical experience analyzing data and interpreting the analysis.

**Prerequisites & Notes:** PSY 512  
Credits: 4

#### **PSY 515 - Multivariate Analysis**

Topics in advanced multivariate analysis including canonical analysis, discriminant functions analysis, cluster analysis and factor analysis. Logical and geometric properties of multivariate techniques and interpretation on research results are stressed.

**Prerequisites & Notes:** PSY 513  
Credits: 3

#### **PSY 516 - Structural Equation Modeling**

Topics in restricted latent variable analysis including path analysis and structural equation modeling. Course will cover theoretical bases and computations of these procedures as well as the use of statistical software packages, with emphasis on interpreting and reporting results.

**Prerequisites & Notes:** PSY 515 or instructor permission  
Credits: 3

#### **PSY 532 - Cross-Cultural Counseling**

This seminar is a basic introduction to the cross-cultural perspective in psychology. History of the modern cross-cultural movement will be covered along with a selection of a number of conceptual and methodological issues and problems. Topics include perception, cognition and emotion, developmental topics, social psychological variables, testing and measurement, personality and psychopathology, and virtually all areas of psychology mediated by culture and ethnicity. Some emphasis given to professional applications such as counseling.

**Prerequisites & Notes:** admission to MS or MEd program in psychology  
Credits: 3

#### **PSY 541 - Seminar in Behavioral Neuroscience**

A detailed examination of brain-behavior relations and the neural bases of behavior. Review and discussion of current literature in a variety of areas.

**Prerequisites & Notes:** Admission to MS

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experimental program; PSY 501 and permission of instructor.

Credits: 3

## **PSY 542 - Developmental Psychopathology**

Overall working model of mental disorders diathesis-stress model. Presentation of diverse theories (e.g., attachment, family systems, genetic/physiological, individual difference, social cognition). Review of current research literature on assessment, diagnosis and treatment of childhood mental disorders within a developmental framework. Ethical considerations in clinical research and therapy with children highlighted.

**Prerequisites & Notes:** Admission to MS or MEd program in Psychology and PSY 502 or permission of instructor.

Credits: 5

## **PSY 543 - Seminar in Cognition**

In-depth coverage of selected topics in perception, memory, cognition, and higher order cognitive processing. Repeatable up to 9 credits.

**Prerequisites & Notes:** Admission to MS experimental psychology program and PSY 503; or permission of instructor.

Credits: 3

## **PSY 544 - Seminar in Developmental Psychology**

In-depth study of central themes of human development. Contemporary research questions addressed in professional literature and field investigations. Repeatable up to 9 credits.

**Prerequisites & Notes:** Admission to MS experimental psychology program and PSY 504; or permission of instructor.

Credits: 3

## **PSY 546 - Seminar in Social Psychology**

In-depth study of social psychological theory and research to explain patterns of thought and behavior. Repeatable up to 9 credits.

**Prerequisites & Notes:** Admission to MS experimental psychology program and PSY 505; or permission of instructor.

Credits: 3

## **PSY 550 - Research Methods in Counseling**

Covers content and research methods relevant to psychological processes in psychotherapy.

**Prerequisites & Notes:** Admission to mental health counseling curriculum or MEd school counseling program PSY 512.

Credits: 1-3

## **PSY 551 - Developmental School Counseling**

A comprehensive overview of professional school counseling with particular emphasis upon recent advances in counseling program development, organization, evaluation and service delivery models.

**Prerequisites & Notes:** admission to MS mental health counseling curriculum or MEd school counseling program; general psychology program students with instructor permission

Credits: 4

## **PSY 553 - Theories of Counseling and Psychotherapy**

Basic orientation to counseling theories including the history and development of theories of counseling; comparison of the theories in terms of goals, process, methods; and evaluation and research in counseling. Some consideration of consultation strategies, systemic skills and psychological education models used by psychological counselors and psychotherapists.

**Prerequisites & Notes:** admission to MS mental health counseling curriculum or MEd school counseling program; general curriculum students with instructor permission.

Credits: 3

## **PSY 554 - Standardized Tests**

Standardized group tests commonly used in the public schools; selection and administration of tests; interpretation of norms.

**Prerequisites & Notes:** Admission to MEd school counseling, MS mental health counseling, MS experimental psychology, or instructor permission.

Credits: 4

**PSY 555 - Occupations and Career Development**

Critical examination of major theories of career development and vocational counseling. Sources of occupational materials and analysis of their use and distribution in counseling practice.

**Prerequisites & Notes:** admission to MS mental health counseling curriculum or MEd school counseling program; PSY 553  
Credits: 3

**PSY 556 - The Role of the School Counselor**

An advanced seminar in school counseling focusing on the professional roles and responsibilities of the counselor in elementary, middle/junior and high school settings. Particular emphasis placed upon a systems orientation to consultation services within the context of a developmental school counseling program.

**Prerequisites & Notes:** admission to MS mental health counseling curriculum or MEd school counseling program; PSY 531, PSY 555  
Credits: 2

**PSY 557 - Testing and Appraisal in Counseling**

The evaluation and use of various psychological tests, scales and inventories in the assessment of intelligence, personality, interests and other human dimensions. Some consideration of other modes of assessment (e.g., behavioral, projective and neurological). Emphasis is on the practical application of psychological assessment in counseling. Collection, evaluation, application and interpretation of case data.

**Prerequisites & Notes:** admission to MS mental health counseling curriculum and PSY 511, or MEd in school counseling program and PSY 554  
Credits: 3

**PSY 558 - Family and Couple Counseling**

A review of major theories, techniques and research in psychological counseling with families. Emphasis is on parent-child developmental problems and the role of interpersonal relationships within the total family. Students are involved in limited supervised family counseling experiences.

**Prerequisites & Notes:** admission to MS mental health counseling curriculum or MEd school counseling program and PSY 553, PSY 564  
Credits: 3

**PSY 560 - Family Counseling Lab**

Students observe and conduct family counseling sessions through the psychology department clinic under the supervision of an appropriate faculty member. Repeatable to a maximum of 6 cr. S/U grading.

**Prerequisites & Notes:** admission to MS mental health counseling curriculum or MEd school counseling program  
Credits: 1-6  
Grade Mode: S/U

**PSY 561 - Seminar: Professional, Legal and Cultural Issues**

Consideration of the professional, cultural, ethical and legal issues and special problems in the application of psychological theories and research in educational settings, community clinics and private practice.

**Prerequisites & Notes:** admission to MS mental health counseling curriculum or MEd school counseling program  
Credits: 3

**PSY 564 - Individual Counseling Techniques**

Skill development in individual counseling, psychotherapy and behavior modification techniques using actual interviews, simulations, videotape and other laboratory procedures. Prerequisite to practicum in individual counseling and psychotherapy.

**Prerequisites & Notes:** admission to MS mental health counseling curriculum or MEd school counseling program  
Credits: 5

**PSY 565 - Group Processes in Counseling**

Current group counseling and psychotherapy techniques. Covers task-directed, encounter, decision-making and communication techniques.

**Prerequisites & Notes:** admission to MS mental health counseling curriculum or MEd school

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counseling program  
Credits: 4

## **PSY 567 - Professional Practice of Counseling**

A comprehensive overview of the history, philosophy, credentialing, and the development of the professional organizations in counseling. Professional roles and topics for counselors such as consultation, outreach, prevention, advocacy, program evaluation, medications, and economic considerations such as funding, managed care, and private practice will also be addressed.

**Prerequisites & Notes:** admission to MS mental health counseling curriculum or MEd school counseling program  
Credits: 2

## **PSY 570 - Practicum**

Professional practice under assigned departmental supervision. Repeatable to a maximum of 15 cr. S/U grading.

**Prerequisites & Notes:** admission to MS mental health counseling curriculum or MEd school counseling program  
Credits: 1-10  
Grade Mode: S/U

## **PSY 581 - Practicum in College Teaching of Psychology**

Repeatable to a maximum of 12 cr. S/U grading.

**Prerequisites & Notes:** instructor permission  
Credits: 1-12  
Grade Mode: S/U

## **PSY 582 - Practicum in Research in Psychology**

Student initiates and conducts a project under faculty supervision. Repeatable to a maximum of 12 cr. S/U grading.

**Prerequisites & Notes:** instructor permission  
Credits: 1-12  
Grade Mode: S/U

## **PSY 661 - Advanced Seminar in Professional Issues in Counseling Practice**

An advanced seminar in professional, cultural, ethical and legal issues in counseling. For MS or

MEd counseling students or counselors who are seeking advanced certification in Washington State. Repeatable for credit with different topics with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to MS mental health counseling program, MEd school counseling, certification in school counseling or instructor permission.  
Credits: 1-4  
Grade Mode: S/U

## **PSY 670 - Internship**

An extension of PSY 570 with increasingly independent responsibilities for practice in a professional setting. Primary supervision is by appropriate staff in the cooperating agency. Repeatable to a maximum of 30 cr. S/U grading.

**Prerequisites & Notes:** admission to MS mental health counseling curriculum or MEd school counseling program  
Credits: 1-12  
Grade Mode: S/U

## **PSY 690 - Thesis**

S/U grading.

**Prerequisites & Notes:** advancement to candidacy  
Credits: 1-12  
Grade Mode: S/U

# Sociology

## Introduction

Sociologists examine subjects encompassing a vast array of human behavior: crime and punishment, the formation and dissolution of families, bureaucracy in organizations, conflicts between classes, and global inequalities. Sociology is distinctive in its focus on the way individuals' lives are embedded within multiple social contexts that facilitate and constrain the range of possible actions. These contexts include generation, occupation, gender, religion, sexual orientation, family, health, nation, race and ethnicity among many others. Sociologists utilize a variety of information sources in their work, including census data, historical documents, transcripts from interviews, survey results, and observations of group behavior.

The Department of Sociology at Western has designed a program of course work that provides majors opportunities to gain 1) understanding of theoretical perspectives within sociology, 2) mastery of the methods of data collection and analysis, and 3) in-depth knowledge of particular subareas. The primary subareas include law, crime, and deviance; families; social organization; and population studies. Regardless of the particular plan of course work that is chosen, sociology students will develop an aptitude for critical thinking, the ability to write effectively for a social scientific audience, and competence with statistical computing that will enhance their future career options. We also offer faculty-led study abroad programs and encourage our students to experience immersion in cultures outside the United States. Recent sociology graduates have obtained positions in a variety of fields, including criminal justice, corrections, education, social services, business management, and marriage and family counseling, among many others. Graduates have found that the skills acquired in our program have prepared them for further academic studies in sociology, demography, law, social work, business and education.

The department maintains a number of facilities and resources that undergraduate students may use to enhance their educational experience. The Center for Social Science Instruction contains U.S. Census Bureau publications and data, a collection of census maps for the local area, and a computer lab. The director of the center is also available to assist students in utilizing several large databases that are available in the center. The Office of Survey Research has involved many undergraduate students in the construction and administration of surveys of Western students and alumni. The department also has its own 30-station computer laboratory for student use. Faculty are engaged in a variety of research activities, and frequently involve undergraduate students in their work.

Students who are interested in becoming sociology majors should carefully read the section labeled 'Admission to Sociology Major' and are encouraged to meet with the departmental advisor to establish a study plan as soon as possible.

## Faculty

**MICK CUNNINGHAM** (2000) Chair and Professor. BA, Pacific Lutheran University; MA, PhD, University of Michigan.

**KRISTIN ANDERSON** (2001) Professor. BA, University of Northern Iowa; PhD, University of Texas-Austin.

**KAREN BRADLEY** (1992) Professor. BA, Providence College; MA, Boston College, Stanford University; PhD, Stanford University.

**RICHARD BULCROFT** (1999) Associate Professor. BA, University of New Hampshire; PhD, University of Minnesota.

**SETH FEINBERG** (2005) Associate Professor. BA, Tufts University; PhD, Ohio State University.

**RONALD HELMS** (2000) Professor. BA, California State University- Chico; PhD, University of Oregon.

**JAMES INVERARITY** (1985) Professor. BA, University of Michigan; PhD, Stanford University.

**JENNIFER LOIS** (2000) Professor. BA, Dartmouth College; PhD, University of Colorado.

**BAOZHEN LUO** (2010) Assistant Professor. BA, Nanjing University, China; MA, PhD, Georgia State University

**LIZ MOGFORD** (2007) Associate Professor. BA, St. John's College; MA, MPH, PhD, University of Washington.



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**JAY D. TEACHMAN** (1998) Professor. BA, Western Washington University; MA, PhD, University of Chicago.

**GLENN TSUNOKAI** (2003) Associate Professor. BA, PhD, University of California-Riverside.

### Admission to Sociology Major

The number of students admitted to the major is limited as a result of the structure of the sociology curriculum and departmental staffing capabilities.

All students wishing to become Sociology majors should meet the following criteria:

- Completion of at least 45 college-level credits
- Completion of at least 5 credits in Sociology with a grade of C- or better

If the preceding criteria are met, students must complete the paperwork for Admission to the Sociology Major, at which point, there are two paths to becoming a Sociology major.

**Path 1 (Immediate Declaration):** Students with a cumulative GPA of 2.85 or higher may submit their Admission paperwork at any time to the Sociology Department Advisor for approval and admission to the major.

**Path 2 (Application Review):** Students with a cumulative GPA lower than 2.85 should submit their Admission paperwork to the Sociology Department on or before Friday of the 2nd week of fall, winter, spring, or summer quarter. These applications will be reviewed and admission to the major will be based on a combination of overall GPA, Sociology GPA, and space available in the program. Students will receive notification regarding their admission status during the third week of classes.

### Other Departmental Information

#### *Minors*

Access to courses for minors is limited as a result of space constraints. See registration policy for additional information.

## Bachelor of Arts

### Sociology, BA

Department of Sociology, College of Humanities and Social Sciences

#### 65 credits

#### Introduction/What is the Study of Sociology?

Sociologists examine subjects encompassing a vast array of human behavior: crime and punishment, the formation and dissolution of families, bureaucracy in organizations, conflicts between classes, and global inequalities. Sociology is distinctive in its focus on the way individuals' lives are embedded within multiple social contexts that facilitate and constrain the range of possible actions. These contexts include generation, occupation, gender, religion, sexual orientation, family, health, nation, race, and ethnicity among many others.

#### Why Consider a Sociology Major?

Sociology students develop an aptitude for critical thinking, improve their writing ability, and gain competence with statistical computing that will enhance their future career options. Sociology students also have the opportunity to participate in faculty-led study abroad programs. Many Sociology graduates enter professions such as law, education, social services and criminal justice work.

## Contact Information

**Department Chair**

Mick Cunningham  
 Arntzen Hall 514  
 360-650-4881  
 Mick.Cunningham@wwu.edu

**Department Advisor**

Linda Clark  
 Arntzen Hall 513  
 360-650-4882  
 Linda.Clark@wwu.edu

## Sample Careers

Law Enforcement | Corrections Officer | Social Worker | Business Manager | Consumer Researcher | Human Resources Manager | Probation Officer | Aging Specialist | Advertising Manager | Alcohol and Drug Case Worker

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

The number of students admitted to the major is limited as a result of the structure of the sociology curriculum and departmental staffing capabilities.

All students wishing to become Sociology majors should meet the following criteria:

- Completion of at least 45 college-level credits
- Completion of at least 5 credits in Sociology with a grade of C- or better
- If the preceding criteria are met, students must complete the paperwork for Admission to the Sociology Major, at which point, there are two paths to becoming a Sociology major.
- Path 1 (Immediate Declaration): Students with a cumulative GPA of 2.85 or higher may submit their Admission paperwork at any time to the Sociology Department Advisor for approval and admission to the major.
- Path 2 (Application Review): Students with a cumulative GPA lower than 2.85 should submit their Admission paperwork to the Sociology Department on or before Friday of the 2nd week of fall, winter, spring, or summer quarter. These applications will be reviewed and admission to the major will be based on a combination of overall GPA, Sociology GPA, and space available in the program. Students will receive notification regarding their admission status during the third week of classes.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- Any ONE of the following introductory courses:
  - SOC 221 - Introduction to Population Issues
  - SOC 251 - Sociology of Deviant Behavior
  - SOC 255 - Social Organization of Criminal Justice
  - SOC 260 - The Family in Society
  - SOC 268 - Gender and Society
  - SOC 269 - Race and Ethnic Relations
- Core requirements:
  - SOC 302 - Classical Sociological Theory
  - SOC 304 - Statistics for Sociology
  - SOC 306 - Sociological Research Methods
- One course from the following list of capstone seminars:
  - SOC 426 - Advanced Topics in Demography

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- SOC 430 - Field Research Methods
- SOC 435 - Population Health Advocacy
- SOC 440 - Globalization
- SOC 450 - Sociology of Law
- SOC 452 - Advanced Criminology
- SOC 456 - Seminar in Policing
- SOC 460 - Advanced Topics in Family
- SOC 461 - Advanced Sociology of Education
- SOC 469 - Advanced Topics in Race and Ethnicity
- SOC 492 - Senior Thesis

□ Electives under departmental advisement to bring the total to a minimum of 65 credits; select from any 200-level introductory course or from any 300/400-level courses in sociology.

A maximum of 10 credits of 100-level or 200-level sociology coursework may be applied to the major. A maximum of 10 credits combined from SOC 371, SOC 400, SOC 481 may be applied to the 65 credits required for the major.

**Note:** SOC 480 (TA) may not be applied toward the major; however SOC 480 applies as a university elective toward the total 180 credits required for graduation.

### **Sociology/Social Studies, BA**

Department of Sociology, College of Humanities and Social Sciences

#### **81-85 credits**

#### **Introduction/What is the Study of Sociology/Social Studies?**

Sociologists examine subjects encompassing a vast array of human behavior; crime and punishment, the formation and dissolution of families, bureaucracy in organizations, conflicts between classes, and global inequalities. Sociology is distinctive in its focus on the way individuals' lives are embedded within multiple social contexts that facilitate and constrain the range of possible actions. These contexts include generation, occupation, gender, religion, sexual orientation, family, health, nation, race, and ethnicity among many others.

Completion of the BA Sociology/Social Studies leads to an endorsement in social studies. To receive a recommendation for state of Washington certification for secondary education, students must complete the "teacher certification" program, including the content methods course SEC 426, which is offered by the Department of Secondary Education as 1) a part of the undergraduate BA degree, or 2) as a post-baccalaureate program, or 3) as part of the Master's in Education degree.

See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### **Why Consider a Sociology/Social Studies Major?**

Sociology students develop an aptitude for critical thinking, improve their writing ability, and gain competence with statistical computing that will enhance their future career options. Sociology students also have the opportunity to participate in faculty-led study abroad programs.

A specialization in Sociology/Social Studies provides an excellent base of knowledge for individuals interested in becoming social studies teachers.

#### Contact Information

##### **Department Chair**

Mick Cunningham  
Arntzen Hall 514

##### **Department Advisor**

Linda Clark  
Arntzen Hall 513

360-650-4881  
 Mick.Cunningham@wwu.edu  
**Secondary Education Information**  
 Janna Cecka  
 Miller Hall 401C  
 360-650-3347  
<http://www.wce.wwu.edu/sec>

360-650-4882  
 Linda.Clark@wwu.edu  
**Teacher Education Admissions**  
 Miller Hall 214  
 360-650-3313  
<http://www.wce.wwu.edu/admiss>

#### Sample Careers

Teacher - Secondary Education

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

The number of students admitted to the major is limited as a result of the structure of the sociology curriculum and departmental staffing capabilities.

All students wishing to become Sociology majors should meet the following criteria:

Completion of at least 45 college-level credits

Completion of at least 5 credits in Sociology with a grade of C- or better

If the preceding criteria are met, students must complete the paperwork for Admission to the Sociology Major, at which point, there are two paths to becoming a Sociology major.

Path 1 (Immediate Declaration): Students with a cumulative GPA of 2.85 or higher may submit their Admission paperwork at any time to the Sociology Department Advisor for approval and admission to the major.

Path 2 (Application Review): Students with a cumulative GPA lower than 2.85 should submit their Admission paperwork to the Sociology Department on or before Friday of the 2nd week of fall, winter, spring, or summer quarter. These applications will be reviewed and admission to the major will be based on a combination of overall GPA, Sociology GPA, and space available in the program. Students will receive notification regarding their admission status during the third week of classes.

## Grade Requirements

Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

### Requirements

#### Sociology Course Requirements (40 credits)

Any ONE of the following introductory courses:

- SOC 221 - Introduction to Population Issues
- SOC 251 - Sociology of Deviant Behavior
- SOC 255 - Social Organization of Criminal Justice
- SOC 260 - The Family in Society
- SOC 268 - Gender and Society
- SOC 269 - Race and Ethnic Relations

Core Requirements:

- SOC 302 - Classical Sociological Theory
- SOC 304 - Statistics for Sociology
- SOC 306 - Sociological Research Methods

Three courses from:

- SOC 326 - American Family and Household Demography
- SOC 330 - The Self, Emotions, and Society

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- SOC 332 - The Sociology of Human Relationships
- SOC 333 - Aging and Societies
- SOC 338 - Sociology of Sexual Behavior
- SOC 340 - Sociology of Organizations
- SOC 348 - Global Health
- SOC 352 - Criminology
- SOC 355 - Criminal Justice System
- SOC 360 - Marital and Family Interaction
- SOC 361 - Sociology of Education
- SOC 363 - Law and Social Stratification
- SOC 364 - Social Stratification
- SOC 367 - Sociology of Work and Occupations
- SOC 368 - Gender and Education
- SOC 369 - Sociology of Race and Ethnicity
- SOC 380 - Sociology of Youth
- SOC 390 - Global Families
- One course from:
  - SOC 461 - Advanced Sociology of Education (preferred)
  - SOC 492 - Senior Thesis
  - Other 400-level capstone seminar

### Social Studies Course Requirements (41-45 credits)

- □ ENVS 204 - Human Geography
- □ HIST 103 - Introduction to American Civilization: American History to 1865
- □ HIST 104 - Introduction to American Civilization: American History Since 1865
- □ HIST 121 - World History to 500
- □ HIST 123 - World History, 1500 to the Present
- □ HIST 391 - History of the Pacific Northwest
- □ PLSC 250 - The American Political System
- One course from:
  - ECON 206 - Introduction to Microeconomics
  - ECON 446 - Economics for the Teacher (preferred)
- One course from:
  - ECON 207 - Introduction to Macroeconomics
  - ECON 447 - Methods for Teaching About the National Economy in the Public Schools (preferred)
- One course from:
  - ENVS 202 - Introduction to Environmental Studies and Sustainability
  - ENVS 220 - Map Reading and Analysis
  - ENVS 221 - Geographic Information Systems Survey
  - ENVS 240 - Geography and World Affairs
  - ENVS 320 - Introduction to Geographic Information Systems
  - ENVS 342 - Geography of the World Economy
  - ENVS 343 - Urbanization: Processes and Patterns

# Bachelor of Arts in Education

## Sociology — Elementary, BAE

Department of Sociology, College of Humanities and Social Sciences

### 50 credits

#### Introduction/What is the Study of Sociology-Elementary?

Sociologists examine subjects encompassing a vast array of human behavior; crime and punishment, the formation and dissolution of families, bureaucracy in organizations, conflicts between classes, and global inequalities. Sociology is distinctive in its focus on the way individuals' lives are embedded within multiple social contexts that facilitate and constrain the range of possible actions. These contexts include generation, occupation, gender, religion, sexual orientation, family, health, nation, race, and ethnicity among many others.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in elementary education. See the Elementary Education BAE section of this catalog for program admission, completion, and teacher certification requirements.

#### Why Consider a Sociology-Elementary Major?

Sociology students develop an aptitude for critical thinking, improve their writing ability, and gain competence with statistical computing that will enhance their future career options. Sociology students also have the opportunity to participate in faculty-led study abroad programs.

A specialization in Sociology/Social Studies provides an excellent base of knowledge for individuals interested in becoming social studies teachers.

#### Contact Information

##### Department Chair

Mick Cunningham  
Arntzen Hall 514  
360-650-4881  
Mick.Cunningham@wwu.edu

##### Elementary Education

##### Professional Program Information

Miller Hall 300  
360-650-3336  
<http://www.wce.wwu.edu/Depts/ELED>

##### Department Advisor

Linda Clark  
Arntzen Hall 513  
360-650-4882  
Linda.Clark@wwu.edu

##### Teacher Education Admissions

Miller Hall 214  
360-650-3313  
<http://www.wce.wwu.edu/admiss>

##### Elementary

##### Education

##### Professional Program Advisor and Program Manager

Ellen Kreider  
Miller Hall 301D  
360-650-7948  
Ellen.Kreider@wwu.edu

#### Sample Careers

Elementary Teacher

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

The number of students admitted to the major is limited as a result of the structure of the sociology curriculum and departmental staffing capabilities.

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All students wishing to become Sociology majors should meet the following criteria:

- Completion of at least 45 college-level credits
- Completion of at least 5 credits in Sociology with a grade of C- or better
- If the preceding criteria are met, students must complete the paperwork for Admission to the Sociology Major, at which point, there are two paths to becoming a Sociology major.
- Path 1 (Immediate Declaration): Students with a cumulative GPA of 2.85 or higher may submit their Admission paperwork at any time to the Sociology Department Advisor for approval and admission to the major.
- Path 2 (Application Review): Students with a cumulative GPA lower than 2.85 should submit their Admission paperwork to the Sociology Department on or before Friday of the 2nd week of fall, winter, spring, or summer quarter. These applications will be reviewed and admission to the major will be based on a combination of overall GPA, Sociology GPA, and space available in the program. Students will receive notification regarding their admission status during the third week of classes.

## Grade Requirements

A grade of C (2.0) or better is required for courses in the elementary education professional program and all courses required for the endorsement.

## Requirements

Sociology Course Requirements (50 credits)

- Any ONE of the following introductory courses:
  - SOC 221 - Introduction to Population Issues
  - SOC 251 - Sociology of Deviant Behavior
  - SOC 255 - Social Organization of Criminal Justice
  - SOC 260 - The Family in Society
  - SOC 268 - Gender and Society
  - SOC 269 - Race and Ethnic Relations
- Core Requirements:
  - SOC 302 - Classical Sociological Theory
  - SOC 304 - Statistics for Sociology
  - SOC 306 - Sociological Research Methods
- Three courses from:
  - SOC 326 - American Family and Household Demography
  - SOC 330 - The Self, Emotions, and Society
  - SOC 332 - The Sociology of Human Relationships
  - SOC 333 - Aging and Societies
  - SOC 338 - Sociology of Sexual Behavior
  - SOC 340 - Sociology of Organizations
  - SOC 348 - Global Health
  - SOC 352 - Criminology
  - SOC 355 - Criminal Justice System
  - SOC 360 - Marital and Family Interaction
  - SOC 361 - Sociology of Education
  - SOC 363 - Law and Social Stratification
  - SOC 364 - Social Stratification
  - SOC 367 - Sociology of Work and Occupations
  - SOC 368 - Gender and Education

- SOC 369 - Sociology of Race and Ethnicity
  - SOC 380 - Sociology of Youth
  - SOC 390 - Global Families
  - One course from:
    - SOC 461 - Advanced Sociology of Education
    - SOC 492 - Senior Thesis
    - Other 400-level capstone seminar
  - Two additional courses: Electives under departmental advisement to bring the total to a minimum of 50 credits in Sociology.
- A maximum of 10 credits of 100-level or 200-level sociology coursework may be applied to the major.

#### Additional Requirements

### Elementary Education Professional Program Requirements (103-104 credits)

Department of Elementary Education, Woodring College of Education

#### Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

#### Admission and Declaration Process

Admission Requirements

#### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

#### Professional Studies Core (25 credits)

- □ ELED 301 - Educational Psychology I: Development and Individual Differences
- □ ELED 302 - Educational Psychology II: Motivation, Learning and Assessment
- □ ELED 310 - Education, Culture, and Equity
- □ ELED 370 - Introduction to Teaching
- □ I T 344 - Basic Instructional Technology Skills
- □ I T 442 - Classroom Use of Instructional Technology (Elementary)
- □ SPED 364 - Teaching Each Student

#### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-79 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy



# SOCIOLOGY

- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

## Bachelor of Science

### Sociology, BS

Sociology, College of Humanities and Social Sciences

#### 69 credits

#### Introduction/What is the Study of Sociology?

Sociologists examine subjects encompassing a vast array of human behavior: crime and punishment, the formation and dissolution of families, bureaucracy in organizations, conflicts between classes, and global inequalities. Sociology is distinctive in its focus on the way individuals' lives are embedded within multiple social contexts that facilitate and constrain the range of possible actions. These contexts include generation, occupation, gender, religion, sexual orientation, family, health, nation, race, and ethnicity among many others.

#### Why Consider a Sociology Major?

Students pursuing the B.S. in Sociology are required to complete a math-intensive course of study. They will also develop an aptitude for critical thinking and improve their writing ability. Students will obtain substantial experience with statistical computing, including programming and data analysis. Majors with a B.S. degree are well positioned to enter graduate school, to become government data analysts, or to conduct market research.

#### Contact Information

##### Department Chair

Mick Cunningham  
Arntzen Hall 514  
360-650-4881  
Mick.Cunningham@wwu.edu

##### Department Advisor

Linda Clark  
Arntzen Hall 513  
360-650-4882  
Linda.Clark@wwu.edu

#### Sample Careers

Business Manager | Consumer Researcher | Human Resources Manager | Advertising Manager | Data Analyst  
| Research Analyst | Demographics Analyst

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

The number of students admitted to the major is limited as a result of the structure of the sociology curriculum and departmental staffing capabilities.

All students wishing to become Sociology majors should meet the following criteria:

- Completion of at least 45 college-level credits
- Completion of at least 5 credits in Sociology with a grade of C- or better
- If the preceding criteria are met, students must complete the paperwork for Admission to the Sociology Major, at which point, there are two paths to becoming a Sociology major.
- Path 1 (Immediate Declaration): Students with a cumulative GPA of 2.85 or higher may submit their Admission paperwork at any time to the Sociology Department Advisor for approval and admission to the major.
- Path 2 (Application Review): Students with a cumulative GPA lower than 2.85 should submit their Admission paperwork to the Sociology Department on or before Friday of the 2nd week of fall, winter, spring, or summer quarter. These applications will be reviewed and admission to the major will be based on a combination of overall GPA, Sociology GPA, and space available in the program. Students will receive notification regarding their admission status during the third week of classes.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- Any ONE of the following introductory courses:
  - SOC 221 - Introduction to Population Issues
  - SOC 251 - Sociology of Deviant Behavior
  - SOC 255 - Social Organization of Criminal Justice
  - SOC 260 - The Family in Society
  - SOC 268 - Gender and Society
  - SOC 269 - Race and Ethnic Relations
- Core requirements:
  - SOC 302 - Classical Sociological Theory
  - SOC 304 - Statistics for Sociology
  - SOC 306 - Sociological Research Methods
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry II
  - MATH 204 - Elementary Linear Algebra
  - SOC 320 - Computer Applications for Social Science Data
  - SOC 400 - Independent Study
  - SOC 426 - Advanced Topics in Demography
  - SOC 492 - Senior Thesis
  - At least 15 credits of elective courses under departmental advisement

A maximum of 10 credits of 100-level or 200-level sociology coursework may be applied to the major.

A maximum of 10 credits combined from SOC 371, SOC 400, SOC 481 may be applied to the 69 credits required for the major.

**Note:** SOC 480 (TA) may not be applied toward the major; however SOC 480 applies as a university elective toward the total 180 credits required for graduation.

## Minor

### Sociology Minor

Department of Sociology, College of Humanities and Social Sciences

**25 credits**

#### Introduction/What is the Study of Sociology?

#### Why Consider a Sociology Minor?

##### Contact Information

##### Department Chair

Mick Cunningham  
Arntzen Hall 514  
360-650-4881  
Mick.Cunningham@wwu.edu

##### Sample Careers

##### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

A 'Minor Declaration Card' is available from the Sociology Advisor in AH 513. This card is to be signed by the student and Sociology Advisor and submitted to the Registrar's Office in OM 230.

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

One or two from:

- SOC 221 - Introduction to Population Issues
- SOC 251 - Sociology of Deviant Behavior
- SOC 255 - Social Organization of Criminal Justice
- SOC 260 - The Family in Society
- SOC 268 - Gender and Society
- SOC 269 - Race and Ethnic Relations

Electives under departmental advisement (from 300- or 400-level sociology courses *with* prerequisites completed; not to include SOC 400, SOC 471, SOC 480 or SOC 492)

## Sociology Courses

### **SOC 221 - Introduction to Population Issues**

Processes determining population growth - fertility, mortality and migration - and their influence on economic development in the more- and less-developed countries of the world; population policies in various countries and their implications for population growth and future development.

Credits: 5

GUR Attributes: SSC

### **SOC 234 - Special Topics in Sociology**

This course investigates a range of sociological issues by focusing on a specific topic over the course of one term. Topics may be offered A) based on unique areas of faculty expertise and/or B) in order to address emerging social issues in a timely fashion that are not covered by courses in the current catalog. Students' learning will include exposure to theoretical perspectives in the discipline, discussion of various methodological approaches to social inquiry, and the opportunity to apply key concepts. Repeatable with different topics to a maximum of 10 credits, including original course.

Credits: 5

### **SOC 251 - Sociology of Deviant Behavior**

A broad overview of concepts, issues and research findings in the sociological study of deviant behavior; how deviance is defined, reacted to and punished in American society. Emphasis on contemporary theoretical perspectives, along with current issues in deviance.

Credits: 5

GUR Attributes: SSC

### **SOC 255 - Social Organization of Criminal Justice**

A survey of basic concepts, problems and issues in the sociological study of social organizations applied to the criminal justice system.

Credits: 5

GUR Attributes: SSC

### **SOC 260 - The Family in Society**

Introduction to the study of family as a social institution in society. Overview of social theories on the family and methodological underpinnings of the field of family study. Emphasis on the family as agent of stratification in society, changing roles of men and women in the context of the American family, contemporary issues relating to family social policy today, and the interplay between family and society across time and cultures.

Credits: 5

GUR Attributes: SSC

### **SOC 268 - Gender and Society**

Introduction to major concepts, issues and research findings regarding the relationship between gender and social structures. Aspects of society examined include education, work, family, law, government and the media. Discussion includes interrelationship between gender, race, class and age. Focus on the U.S., with some cross-national material.

Credits: 5

GUR Attributes: BCGM

### **SOC 269 - Race and Ethnic Relations**

Introduces students to the sociology of race and ethnic relations in the United States. Surveys racial and ethnic minority groups and provides a historical context for their relative positions in the United States by considering the dynamics of the political and economic climate, racial/ethnic attitudes, interminority relations, and social policy.

Credits: 5

GUR Attributes: BCGM

### **SOC 302 - Classical Sociological Theory**

The emergence of sociology: sociology as response to the Industrial Revolution and as an attempt to develop a scientific understanding of social organization, behavior and change; the development of social thought; Comte, Spencer, Marx, Durkheim and Weber.

**Prerequisites & Notes:** Any one from: SOC 221,

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SOC 251, SOC 255, SOC 260, SOC 268, SOC 269.  
Credits: 5

### **SOC 304 - Statistics for Sociology**

An applied statistics course that introduces students to two important aspects of statistics: (1) graphical and numerical procedures for describing and summarizing data; and (2) quantitative analysis of data to make decisions and predictions and draw inferences. This course also involves the use of computers for statistical analysis and introduces students to the most common statistics used by sociologists.

**Prerequisites & Notes:** MATH 107 or MATH 112 or equivalent; And any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

Major restricted.

Credits: 5

GUR Attributes: QSR

### **SOC 306 - Sociological Research Methods**

Focuses on applying research methods used by sociologists. Examines the principles of research design, the nature of empirical observations, sampling and measurement techniques, and applied narrative and statistical analysis. Engages students in the steps of the research process and examines effective social science writing techniques.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268, SOC 269.

Credits: 5

### **SOC 320 - Computer Applications for Social Science Data**

Designed to integrate fundamental statistical knowledge with direct computer applications for the organization and analysis of data sets encountered in social science research. Training in the use of library statistical routines (e.g., SPSS) central to research in the social sciences is emphasized.

**Prerequisites & Notes:** SOC 304 or equivalent; and any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268, SOC 269.

Credits: 5

### **SOC 321 - Demography**

Systematic introduction to the study of human populations. Designed for students interested in the subject regardless of their major discipline. Examines social, economic and biological factors associated with fertility, mortality and migrations.

Credits: 5

### **SOC 326 - American Family and Household Demography**

Description and explanation of trends in family behavior and family policy, with an emphasis on the influence of demographic factors. Topics include childhood, independent living, cohabitation, marriage, divorce, work and family, household structure, and aging.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268 SOC 269.

Credits: 5

### **SOC 330 - The Self, Emotions, and Society**

Examines the relationship between the self and society, including topics such as the nature of the self, the development of self-concept, the social construction of emotions and their impact on sense of self, and the social organization of identity. Emphasizes the theoretical perspective of symbolic interaction and its relationship to qualitative research.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

Credits: 5

### **SOC 332 - The Sociology of Human Relationships**

A social psychological examination of liking, loving and relating. Emphasis on dyadic relationships such as marriage, friendship and parent-child relationships. Topics include socialization into romance and love, historical linkages between industrialization and the 'feminization' of love, sociological perspectives on liking and loving, and research methods used in the study of dyadic relationships.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268, SOC 269.

Credits: 5

**SOC 333 - Aging and Societies**

Basic theories, methods and concepts in the field of social gerontology highlighting demographic trends in aging locally, nationally, and globally, the effects of population aging in developing and developed countries, individual accommodations to the aging process in different societies, the social construction of old age across cultures, and social policy in relation to the stratification of the aged and an increasingly elderly population from a comparative perspective.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

Credits: 5

**SOC 334 - Contemporary Chinese Society**

This course provides an overview of various aspects of contemporary Chinese society since the establishment of the People's Republic of China in 1949. Students will gain basic literacy in the historical, social, cultural, and political domains within contemporary China. In particular, the course will focus on on-going social changes in Reform-era China (1978 - present) related to the party-state regime, civil society, population growth and urbanization, environmental issues, family, kinship, marriage, sexuality, and related topics.

**Prerequisites & Notes:** Any one course from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268, or SOC 269.

Credits: 5

**SOC 338 - Sociology of Sexual Behavior**

Human sexuality, with an emphasis on Western cultures and the United States in particular, is studied from a scientific perspective. Emphasis on both description and explanation of patterns and diversity in sexuality. While focusing on the social dimensions of sexuality, the historical, biological and psychological aspects of sexuality are integrated into a comprehensive overview.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

Credits: 5

**SOC 340 - Sociology of Organizations**

Introduction to major theoretical perspectives and research on public and private organizations, such as corporations, schools and health-care facilities. Formal and informal structures, the relationship between organizations and their environments, leadership, decision-making and labor markets.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

Credits: 5

**SOC 348 - Global Health**

Introduces students to the main concepts of global health, with a particular emphasis on sociological determinants of health. Focuses on the demographic and epidemiological transitions, gender and reproductive health, human rights, and the global burden of disease. Evaluates the role of international institutions, such as the World Bank and non-governmental organizations, in the organization and delivery of health services in underdeveloped countries. Understanding the root causes of health disparities and strategies for the achievement of health equity is central to the course. Please note: this course includes an engaging group project that requires students to hold several out-of-class meetings. Please take this into consideration before you enroll.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

Credits: 5

**SOC 352 - Criminology**

The study of adult crime, defined as violation of legal norms. Focuses on problems of measurement and attempts to explain crime as a social phenomenon and a cultural product. Includes in-depth analysis of various forms and classes of crimes and their victims.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

Credits: 5

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### **SOC 354 - Domestic Violence and the Criminal Justice System**

A survey of sociological research on domestic violence and the criminal justice system. Examines the historical and cultural changes that contributed to the classification of domestic violence as a crime, the characteristics of domestic assault, and the variety of criminal justice interventions into domestic violence.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

Credits: 5

### **SOC 355 - Criminal Justice System**

Overview of the social organization of the criminal justice system in the United States. Examination of the organizations that create and enforce the criminal law as well as major issues currently confronting this system (plea bargaining, discrimination, limitations on due process).

**Prerequisites & Notes:** SOC 255.

Credits: 5

### **SOC 356 - Law Enforcement and Society**

Review of research on the organization of law enforcement. Topics include impact of legal and organizational controls on police behavior, police use of deadly force, minorities and policing, and community policing.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

Credits: 5

### **SOC 360 - Marital and Family Interaction**

Examines systems and interactional perspectives on marriage and family dynamics. The focus of this course is on family adaptation as a function of system processes and interactional patterns.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268, SOC 269 or PSY 201.

Credits: 5

### **SOC 361 - Sociology of Education**

Analysis of the historical origins and spread of public education, the internal organization of schools and classrooms and the social impact of education. Schooling as a major form of socialization and status placement; political and legal bases of education; non-formal schooling; education and nation-state formation.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

Credits: 5

### **SOC 363 - Law and Social Stratification**

Examination of current sociological research on the ways in which the creation and application of law are conditioned by class, racial, gender, and ethnic inequalities in society. Applies several general sociological theories of stratification to a range of cases in both civil and criminal law.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

Credits: 5

### **SOC 364 - Social Stratification**

Social causes and consequences of inequality in America. Social distribution of wealth, power and status; emphasis on poverty and racial social inequality.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

Credits: 5

### **SOC 365 - Gender, Bodies, and Sports**

Applies sociological perspectives to study the relationship between gender, bodies, and sports in the U.S. society. Focuses on contemporary sociological theories of gender and bodies and their application to sport as a social institution.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

Credits: 5

### **SOC 366 - Colonialism, Slavery, and Links to Contemporary Racism**

A seminar course to analyze the precursors of contemporary racism using a sociological perspective of racial inequality in the United States and in western, eastern, and southern Africa. There is a specific examination of the historical record of colonialism, slavery, and interethnic rivalry with a particular emphasis on the lasting effects of slavery for people of color in many parts of Africa and the United States.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.  
Credits: 5

**SOC 367 - Sociology of Work and Occupations**  
Sociological and social-psychological significance of work; factors affecting contemporary career patterns/life cycle changes; sex, race, ethnic and social class differences; structural characteristics of selected occupational areas.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.  
Credits: 5

**SOC 368 - Gender and Education**  
Examines the relationship between gender and education within the U.S. context and internationally. We will consider girls and boys, women and men, in various levels of schooling. The ways in which race and class interact with gender in educational attainment and achievement also will be examined.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269; 268 preferred or course with equivalent gender content.  
Credits: 5

**SOC 369 - Sociology of Race and Ethnicity**  
Provides a review of historical, theoretical and empirical work in the sociology of race and ethnicity. Emphasis on primary material in the areas of ethnic assimilation, racial attitudes, and racial and ethnic inequality in the United States.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268 or SOC

269; minority relations preferred.  
Credits: 5

**SOC 371 - Directed Internship**  
Application of sociological concepts and methods to better understand social issues and problems while engaged in on-site work experiences in approved settings. All interns work at least 10 hours per week at the internship site, in the type of work specified in the contract. In addition, students complete several written assignments, including a research paper. Repeatable to a maximum of 10 credits.

**Prerequisites & Notes:** SOC 302 and SOC 306  
Credits: 5

**SOC 376 - Research and Policy in Criminal Justice Organizations**  
Examines the sociological studies of criminal justice policy formation and change. Outlines connections between criminal justice policy planning, program design, organizational structure and process considerations, and various methods used to assess change processes and to evaluate program outcomes.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.  
Credits: 5

**SOC 378 - Military Sociology**  
This course draws on philosophical works as well as theoretical and applied research to assess the current status of the U.S. military and its relations with civilian government and society since the Vietnam war and cold war experiences. Emphasis is placed on emerging threats to U.S. national security and the military's national defense mission under the changing conditions associated with the era of globalism.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.  
Credits: 5

**SOC 380 - Sociology of Youth**  
Sex and age status definitions and role-taking; historical, institutional and social process aspects



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of maturation, with special emphasis on Western industrial society from the 18th century to the present.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

Credits: 5

### **SOC 388 - Sociology of Jails**

This course emphasizes sociological analysis of local jail operations, including populations, funding, management, legal, and regulatory aspects and roles of various professions operating in the jail environment.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

Credits: 5

### **SOC 390 - Global Families**

An analysis of families in their institutional context through the comparative study of family life in one or more societies outside the United States. This analysis could be of a single society or of multiple societies with the goal of enhancing our understanding of the diversity of family life and the ways in which family life is shaped by and helps other institutions.

**Prerequisites & Notes:** Any one from: SOC 221, SOC 251, SOC 255, SOC 260, SOC 268 or SOC 269.

Credits: 5

### **SOC 426 - Advanced Topics in Demography**

Analysis of fertility or mortality issues in both developed and developing countries; proximate determinants of fertility; birth-spacing and family limitation practices; infant and child mortality; life expectancy.

**Prerequisites & Notes:** SOC 302; SOC 304 or PSY 302 or SOC 215; SOC 306 or PSY 301 or SOC 210; and SOC 320.

Credits: 5

### **SOC 430 - Field Research Methods**

Presents skills to conduct qualitative sociological research. Emphasizes ethnographic techniques

such as direct observation, participant observation, intensive interviewing, data analysis, literature review, and report writing. Each student conducts original sociological research by entering a specific social setting, collecting and analyzing data within that setting, and producing a comprehensive paper on the findings.

**Prerequisites & Notes:** SOC 302; and SOC 304 or PSY 302 or SOC 215; and SOC 306 or PSY 301 or SOC 210; SOC 330 highly recommended.

Credits: 5

### **SOC 435 - Population Health Advocacy**

The goals of this capstone course are to understand population health dynamics and health equity through research-based advocacy. In addition to studying the literature and theories of population health, the social determinants of health, and health promotion, you will complete a community-based research project. Each year the research topic varies, depending on the needs of the community partner organization or on the particular research objectives. Typically, the research will be conducted as a team, so students will gain leadership and management skills and be required to collaborate closely with other classmates. Depending on the specific project, quantitative or qualitative methods may be used.

**Prerequisites & Notes:** SOC 302; and SOC 304 or PSY 302 or SOC 215; and SOC 306 or PSY 301 or SOC 210; and SOC 348.

Credits: 5

### **SOC 440 - Globalization**

Examines the economic, cultural and political components of globalization. Special topics include the new forms of inequality that have emerged with global interdependence and debates concerning the benefits and dangers associated with globalization.

**Prerequisites & Notes:** SOC 302; and SOC 304 or PSY 302 or SOC 215; and SOC 306 or PSY 301 or SOC 210.

Credits: 5

### **SOC 450 - Sociology of Law**

A capstone research seminar in which students develop an individual project, write a review of

previous research, and conduct an analysis using secondary data sources to study the effects of laws on society (e.g., consequences of no-fault divorce laws) and the social bases of legal change (e.g., factors influencing state adoption of sentencing guidelines).

**Prerequisites & Notes:** SOC 302; and SOC 304 or PSY 302 or SOC 215; and SOC 306 or PSY 301 or SOC 210.  
Credits: 5

### **SOC 452 - Advanced Criminology**

An in-depth examination of selected areas in sociological criminology.

**Prerequisites & Notes:** SOC 302; and SOC 304 or PSY 302 or SOC 215; and SOC 306 or PSY 301 or SOC 210; and SOC 352.  
Credits: 5

### **SOC 456 - Seminar in Policing**

Review of research on the organization of law enforcement. Topics include impact of legal and organizational controls on police behavior, police use of deadly force, minorities and policing, and community policing.

**Prerequisites & Notes:** SOC 302; and SOC 304 or PSY 302 or SOC 215; and SOC 306 or PSY 301 or SOC 210.  
Credits: 5

### **SOC 460 - Advanced Topics in Family**

Focus varies, depending on instructor. Emphasis on current research in family sociology. Topics may include family violence, demographic analysis of family structures, family life course development, family and the economy, parent-child interaction, family and social policy, and others.

**Prerequisites & Notes:** SOC 302; and SOC 304 or PSY 302 or SOC 215; and SOC 306 or PSY 301 or SOC 210.  
Credits: 5

### **SOC 461 - Advanced Sociology of Education**

Focus varies, depending on instructor. Topics may include the organization of educational systems within the United States and cross-nationally, school/classroom organization and their effects on

student learning and educational attainment; examination of special topics on-site in specific school settings.

**Prerequisites & Notes:** SOC 302; and SOC 304 or PSY 302 or SOC 215; and SOC 306 or PSY 301 or SOC 210.  
Credits: 5

### **SOC 469 - Advanced Topics in Race and Ethnicity**

An in-depth examination on current issues surrounding race and ethnic relations (e.g., interracial dating, prejudice and discrimination, and hate group involvement).

**Prerequisites & Notes:** SOC 302; and SOC 304 or PSY 302 or SOC 215; and SOC 306 or PSY 301 or SOC 210; and SOC 369 or permission of instructor.  
Credits: 5

### **SOC 480 - Learning and Teaching Sociology**

The teaching assistantship is intended to provide students with practical experience in the teaching of sociology at the undergraduate level. To that end, students will get hands-on experience in the various activities associated with teaching a particular course in the department. TA duties may include leading discussion groups, assisting the instructor in preparing lecture material, and assisting students in the class with understanding course material. A more detailed list of sample activities may be obtained from the academic advisor. Actual duties will vary by course and instructor. Credit is determined by the instructor depending on the actual duties of the teaching assistant. Repeatable to a maximum of 5 credits. S/U grading.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 2-5  
Grade Mode: S/U

### **SOC 481 - Research Assistantship**

Course is structured consistent with the apprenticeship model. Students will work closely with one faculty member, assisting in sociological research. Actual activities will vary depending upon the nature and stage of the research project. Responsibilities may include data set construction

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and/or analysis, interviewing and interview transcription, and library searches. Students are required to submit a report or project journal to the supervising instructor in a format to be mutually agreed upon at the start of the assistantship. Repeatable to a maximum of 10 cr.

Credits: 2-5

### **SOC 492 - Senior Thesis**

The student is required to complete the senior thesis contract in consultation with his/her senior thesis faculty advisor prior to taking the SOC 400/492 sequence.

**Prerequisites & Notes:** SOC 302; and SOC 304 or PSY 302 or SOC 215; and SOC 306 or PSY 301 or SOC 210. 5 credits of SOC 400 taken with student's senior thesis faculty advisor before and in preparation for senior thesis.

Credits: 5

# Women Studies

[www.wvu.edu/depts/womenstudies/](http://www.wvu.edu/depts/womenstudies/)

The Women Studies program offers students an interdisciplinary approach to the study of feminist perspectives and voices, and provides a forum for students to develop and articulate their own experience. Courses in the program address issues in three basic areas: women in history and politics, women in science and society, and women in language and the arts.

The minor includes five core courses and additional electives for a total of 30 credits. Students are expected to earn at least a C+ in courses counting toward the minor.

Students may design a student/faculty-designed major through the College of Humanities and Social Sciences.

Procedures are available from the Department of Liberal Studies at

<http://www.wvu.edu/liberalstudies/basfd.shtml>. Close advisement is recommended, as new courses may apply to this minor.

Students who wish to declare a minor in Women Studies are required to register with the Women Studies office. For program advisement, contact the Women Studies office, Miller Hall 415C, 360-650-3534, or Professor Hsueh, Arntzen Hall 405, 360-650-2649.

## Participating Faculty

**KRISTIN ANDERSON**, Sociology. Gender and society, the family in society, domestic violence and the criminal justice system.

**JEANNE ARMSTRONG**, Library. Gender studies, postcolonial theory and comparative cultural and literary studies.

**BIDISHA BISWAS**, Political Science. Diaspora politics, international relations, ethnic and civic conflicts, terrorism.

**KAREN BRADLEY**, Sociology. Gender and education.

**MARIA CHAVEZ**, Anthropology. Latin America women with an emphasis on Central America women, Mayan indigenous women.

**BARBARA COLLAMER**, Psychology. Gender issues, learning and cognitive development, adolescent development.

**LESLIE CONTON**, Fairhaven College. Cultural anthropology (transpersonal/ applied), cross-cultural healing, sex roles, consciousness and creativity.

**SUSAN CONSTANZO**, History. Russian women's history and culture.

**DAWN DIETRICH**, English. Literature, technology and gender, feminist film theory, performance studies.

**MARIE EATON**, Fairhaven. Lesbian/gay/bisexual/transgendered issues in education.

**ANNA EBLEN**, Communication. Gender and language, women and communication.

**DEBORAH KIRBY FORGAYS**, Psychology. Psychology of women, women and health, gender assessment across cultures, the experience and expression of anger in women.

**ALLISON GIFFEN**, English. Early 19th century American women writers and American women poets.

**CAROL GUESS**, English. Lesbian/gay/bisexual/transgendered studies, creative writing.

**JOYCE HAMMOND**, Anthropology. Cross-cultural women studies, gender in visual media and popular culture, gender and body, women's folk arts.

**PAM HARDMAN**, English. Women's literature, cultural studies, medical institutions' treatment of women.

**VICKI HSUEH**, Political Science. Feminist political theory; political participation and gender; post-colonialism, ethnicity, and race.

**DANA JACK**, Fairhaven. Gender issues in cultural contexts, including women's psychology, depression, eating disorders, anger and aggression in women.

**CAROL JANSON**, Art. Women in early modern European visual culture, representing gender and sexuality in myths, the role of women in museum culture.

**KEVIN LEONARD**, History. U.S. West, Pacific Northwest, lesbian/gay/bisexual/ transgendered studies.

**ARLEEN LEWIS**, Psychology. Gender roles and behaviors, family counseling.

## WOMEN STUDIES

**ANNE LOBECK**, English. Language and gender.

**JEN LOIS**, Sociology. Gender and society.

**MARY JANELL METZGER**, English. Feminist theory, women and literature.

**BARBARA MILLER**, Art History. Feminist art theory, contemporary women artists, and the representation of gender in modern and contemporary visual culture.

**KATE MILLER**, Women studies. Introduction to women studies, lesbian/gay/ bisexual/transgendered studies, creative writing, feminist theory.

**RAQUEL MONTOYA-LEWIS**, Fairhaven. Social constructs; ethnic, racial, and cultural identity

**CYNTHIA MOULDS**, Women studies. Introduction to women studies, gender and globalization, transnational feminism.

**CAROLYN NIELSON**, Journalism. Diversity, mass media and social change as it relates to women's lives.

**SHIRLEY OSTERHAUS**, Fairhaven. Human rights and gender differences on a local and global scale.

**NANCY PAGH**, English. Gender and Pacific Northwest regional studies, women and environments, women and space.

**SUZANNE PAOLA**, English. Creative writing, women and literature.

**DEBRA J. SALAZAR**, Political science. Women and environmental politics.

**KATHLEEN SAUNDERS**, Anthropology. Gendered aspects of technoscience, reproduction and kinship, cross-cultural sex and gender.

**RAE LYNN A. SCHWARTZ-DuPRE**, Communication. Rhetoric, mass media and gender identity.

**MIDORI TAKAGI**, Fairhaven. Race, class and gender, comparative studies of women of color.

**SHURLA THIBOU**, Women studies. Women and literature, Caribbean women, women and the prison industrial complex.

**KATHRYN TRUEBLOOD**, English. Women and literature, creative writing.

**SARA WEIR**, Political Science. Social and health policy, women and politics, feminist political theory.

**CHRISTOPHER WISE**, International Studies. Colonization/Post colonization and expected gender roles.

**KATHLEEN YOUNG**, Anthropology. Cross cultural gender roles.

## Minor

### Women Studies Minor

Department of Women Studies, Interdisciplinary Studies

#### 30 credits

#### Introduction/What is the Study of Women Studies?

#### Why Consider a Women Studies Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Students who wish to declare a minor in Women Studies are required to register with the Women Studies office. For program advisement, contact Professor Hsueh, Arntzen Hall 405, 360-650-2649.

## Grade Requirements

Students are expected to earn at least a C+ in courses counting towards the minor.

### Requirements

#### Core

8-10 credits

- WMNS 211 - Introduction to Women Studies
- WMNS 411 - Senior Project

20-22 credits

One course from each of the following areas:

— Women in History and Politics: These courses examine women's role and constructions of gender in history and politics:

- WMNS 311 - American Women Studies: 1620-1850
- WMNS 313 - American Women Studies: 1850-Present
- FAIR 311C - Alternatives in Education
- FAIR 362F - We're Not for Sale: History of Asian Women in America
- FAIR 363B - Suzie Wong to Miss Saigon: Asian Presence in Hollywood
- HIST 367 - US Women to 1865
- HIST 368 - US Women from 1865
- HIST 556 - Topics in Latin American History
- PLSC 345 - Women and Politics
- PLSC 421 - Lesbian, Gay, Bisexual, Transgendered Politics
- PLSC 469 - Feminist Political Theory

— Women in Science and Society: These courses examine social constructs and theories pertaining to women's identity and roles, drawing especially on issues of class, race and gender; women's work and the economy; families and households:

- ANTH 353 - Sex and Gender in Culture
- ANTH 453 - Women of the Global South
- ANTH 553 - Women of the Global South
- FAIR 313E - Queer Issues in Education
- FAIR 314E - Critical Pedagogy
- FAIR 338P - Cultural and Biological Perspectives on Pregnancy and Childbirth
- FAIR 341T - Awareness Through the Body II
- FAIR 342U - The Body Speaks: Culture and Eating Disorders
- SOC 354 - Domestic Violence and the Criminal Justice System
- SOC 368 - Gender and Education
- WMNS 314 - Global Women

— Women in Language and the Arts: These courses discuss feminist critiques of representations of women in language and literature, visual and performance arts, and the media:

- COMM 416 - Topics in Communication
- ENG 309 - Literature and Culture III: 18th and 19th Centuries
- ENG 311 - Literature and Culture V: 20th and 21st Centuries
- ENG 338 - Women and Literature in North America and Europe
- ENG 408 - Cultural Studies
- ENG 550 - Studies in American Literatures
- ENG 575 - Studies in Women's Literature
- INTL 325 - Global Literature

# WOMEN STUDIES

- THTR 428 - Major Dramatists
  - WMNS 212 - Feminist Theory and Expression
  - WMNS 314 - Global Women
- Electives: 4 or more credits from any of the above areas

## Additional Information

Each academic year the women studies office compiles a list of all courses with a gender/women studies focus. Detailed descriptions of the above courses can be found in their respective department listings. Students are expected to earn at least a C+ in courses counting toward the minor.

## Women Studies Courses

### **WMNS 211 - Introduction to Women Studies**

Introduction to the issues, questions, conceptual frameworks and methods basic to a study of human societies, their institutions and cultural artifacts from a perspective that comprehends

women's experience.

Credits: 4  
GUR Attributes: BCGM

material may include oral, written, and visual texts.

### **WMNS 212 - Feminist Theory and Expression**

This course will engage students in critical thinking, reading and writing about multicultural and global perspectives that women have developed from a feminist consciousness. Class

**Prerequisites & Notes:** ENG 101; 30 credits.  
Credits: 4

GUR Attributes: CCOM

Emphasis on the impact of changing modes of American capitalism; women's efforts for equal rights and social reform; changing patterns of fertility; women's increased participation in the work force; changes in women's role in the domestic sphere.

### **WMNS 311 - American Women Studies: 1620-1850**

Women's role in American society from colonial times to the mid-19th century, with attention to differences of race and class. Emphasis on changing sex roles for both women and men as a result of changes in the structure of the family, immigration, urbanization, expansion of the frontier, education, religion, development of the nation and industrialization.

**Prerequisites & Notes:** HIST 103 or 104 or ENG 216 or other WMNS course.

Credits: 5

**Prerequisites & Notes:** HIST 103 or 104 or ENG 216 or other WMNS course.

Credits: 5

### **WMNS 313 - American Women Studies: 1850-Present**

Factors influencing the female gender role as it changed in the last century and a half from the 'Cult of True Womanhood' to the 'New Woman' to the 'Feminine Mystique' to the 'Liberated Woman.'

### **WMNS 314 - Global Women**

Introduces the concepts of transnational feminism. Examines the experiences of women in a global economy, explores the strategies women develop to resist global patriarchal structures, and to organize and mobilize globally.

**Prerequisites & Notes:** WMNS 211 or four credits of 300-level Women Studies.

Credits: 4

GUR Attributes: ACGM

Credits: 3

### **WMNS 315 - Issues of Women's Movement**

**Prerequisites & Notes:** PLSC 101, SOC 101 or permission of instructor.

### **WMNS 411 - Senior Project**

Projects serve as a capstone experience for minors and majors in which students demonstrate their

ability to apply knowledge of subject matter and methodology. Students are encouraged to develop interdisciplinary research or field projects that gives them opportunity to put into practice the theories and skills they have been learning during the course of their study. Students are encouraged to develop project internships with women's community organizations. Repeatable to a maximum of 15 cr.

**Prerequisites & Notes:** Completion of Women Studies core.  
Credits: 1-6

**WMNS 453 - Women of the Global South**

Explores women's economic, religious, political and familial roles through topics such as development and globalization, violence, and women's movements. Student contributions to course topics emphasized through individual papers and group panel work. Also offered as ANTH 453.

**Prerequisites & Notes:** Fifteen credits of 300-level Anthropology or related discipline; WMNS 211; ANTH 353 highly recommended; or permission of instructor.  
Credits: 5



# College of Sciences and Technology

## Introduction

*Dr. Jeff R. Wright, Dean*

The College of Sciences and Technology consists of seven academic departments: biology, chemistry, computer science, engineering technology, geology, mathematics, and physics/astronomy. In addition to the academic departments, the college is home to Western's Science, Mathematics, and Technology Education (SMATE) program and the Advanced Materials Science and Engineering Center (AMSEC). SMATE is dedicated to the enrichment and education of K-12 pre-service teachers and education reform. AMSEC's mission is to educate students and promote interdisciplinary research in materials science and to assist regional companies solve their materials related challenges. The college is committed to excellence in teaching, fostering interdisciplinary research and study opportunities, enhancing diversity, enhancing the quality of science, mathematics and technology K-12 teaching, and the development of critical thinking. Western has extensively invested in new facilities for the sciences in recent years (biology, chemistry, engineering technology, and SMATE). Additionally, the communications facility opened in the spring of 2004 and houses both the computer science department and the physics/astronomy department. Thus, students in the college are engaged in high-quality classroom experiences that, when combined with laboratory experiences, foster a basic understanding of the scientific method and research methodologies. Students in the college are encouraged to participate in individual or team research projects with faculty members.

All the departments within the college are dedicated to providing a high-quality education for students by incorporating undergraduate research and practical laboratory-based experiences to stimulate intellectual curiosity, critical thinking abilities and application of the scientific method. Graduates from the college pursue graduate degrees, a wide variety of jobs in industry or governmental organizations, or become teachers. All of the graduates are expected to be excellent communicators and be vigorous throughout their lives in the active pursuit of knowledge.

Within the college, students will find a wide variety of majors and minors from which to choose, including many interdisciplinary majors or minors. Both bachelor's and master's degrees are offered. Graduates from many majors also seek certification in education. The College of Sciences and Technology partners with the College of Humanities and Social Sciences to provide students with a liberal education. Graduates from the College of Sciences and Technology are uniquely positioned, therefore, to contribute leading roles in their scientific, professional and technical lives in our increasingly complex world.

## Academic Programs Leading to Undergraduate and Graduate Degrees

Applied Mathematics	BS
Behavioral Neuroscience	BA*
Biology	BA, BS, MS
Biology/Anthropology	BS
Biochemistry/Cellular and Molecular Biology	BS
Biology/Mathematics	BS
Biochemistry	BS
Chemistry	BA, BS, MS
Chemistry/Biology	BAE
Chemistry/Mathematics	BAE
Chemistry/Physics	BAE
Computer Science	BS, MS
Earth Science	BAE
Earth Science/General Science	BAE
Economics/Mathematics	BA
Electronics Engineering Technology	BS

General Science	BAE
Geology	BA, BS, MS
Industrial Design	BS
Industrial Technology	BS
Manufacturing Engineering Technology	BS
Mathematics	BA, BAE, BS, MS
Mathematics/Computer Science	BS
Natural Science/Science Education	MEd
Physics	BS
Physics/Mathematics	BAE
Plastics Engineering Technology	BS

\*Interdisciplinary between the College of Humanities and Social Sciences and the College of Sciences and Technology.

## Majors and Minors

In addition to the General University Requirements (GURs) and other common degree requirements of the University, the candidate for a Bachelor of Arts or Bachelor of Science degree must complete a major area emphasis which is usually accompanied by supporting courses. A minor is optional. A few concentrations are offered which encompass both a major and a minor. Students will confer with appropriate departmental advisors to plan study programs. Transfer students are expected to complete at least a portion of their work in the major and minor fields in this institution.

## College Admission and Advisement

As the student completes the freshman year, which usually consists largely of courses that also meet the GURs, he or she is referred to the academic departments for continued personalized advisement in planning and selecting courses of study. Faculty within each department share responsibility for counseling students electing concentrations in their area. Faculty members may recommend to the department chair the waiving of certain course prerequisites (when it has been demonstrated that the student already has these competencies). Students who are undecided about a major may seek advisement through the Academic Advising Center in Old Main.

## Department Chairs

Dr. Joann Otto, Biology  
 Dr. James Vyvyan, Chemistry  
 Dr. Perry Fizzano, Computer Science  
 Dr. Jeffrey Newcomer, Engineering Technology  
 Dr. Bernard Housen, Geology  
 Dr. Tjalling Ypma, Mathematics  
 Dr. Brad Johnson, Physics/Astronomy

## Other College Information

### *Departments, Courses and Programs*

Courses listed in this catalog constitute a record of the total academic program of the University. For an exact scheduling of courses at Western, students should consult the online *Timetable of Classes* and Extended Education bulletins.

*Interdisciplinary Sciences, Technology and Mathematics (ISTM)*

## COLLEGE OF SCIENCE AND TECHNOLOGY

Courses containing scientific, technological and/or mathematical topics without focusing on a particular discipline are offered under the Interdisciplinary Science(s), Technology and Mathematics designation. Courses are designed for both science and non-science students. Faculty will come from across the College of Sciences and Technology, and will offer a wide range of perspectives on the institutions, tools and practice of science, technology and mathematics. A new course on scientific literacy is an example of the type of course that will be offered with this new designation.

# Biology

## Introduction

<http://www.biol.wvu.edu/biology/>

Biology is the study of living organisms and is one of the broadest fields in science. It ranges in scale from the molecular and cellular to ecosystems and evolutionary biology. Biology at Western Washington University gives students the opportunity to explore this breadth in all degree programs, as well as to specialize.

## Faculty

**JOANN OTTO** (2004) Chair and Professor. AB, AM, Mount Holyoke College; PhD, University of California-Irvine.

**ALEJANDRO ACEVEDO-GUTIÉRREZ** (2002) Professor. BSc, Universidad Autonoma de Baja California Sur, Mexico; PhD, Texas A&M University.

**ROGER A. ANDERSON** (1994) Professor. BS, University of Minnesota; MA, University of California-Riverside; PhD, University of California-Los Angeles.

**MARION BRODHAGEN** (2006) Associate Professor. BS, University of Wisconsin; MS, PhD, Oregon State University.

**CAROLINE DAHLBERG** (2014) Assistant Professor. BS, Haverford College; PhD, University of Washington.

**ERIC DECHAINED** (2006) Associate Professor. BA, University of California-San Diego; MS, University of Hawaii-Manoa; PhD, University of Colorado-Boulder.

**DEBORAH A. DONOVAN** (1998) Professor. BSc, MSc, University of California-Davis; PhD, University of British Columbia.

**DAVID U. HOOPER** (1998) Professor. BA, Middlebury College; PhD, Stanford University.

**ROBIN KODNER** (2012) Assistant Professor. BS, University of Wisconsin; PhD, Harvard University

**DAVID S. LEAF** (1991) Professor. BS, University of Washington; PhD, Indiana University.

**BENJAMIN MINER** (2006) Associate Professor. BA, University of Florida; PhD, University of California-Santa Cruz.

**CRAIG L. MOYER** (1997) Professor. BS, MS, Oregon State University; PhD, University of Hawaii.

**MERRILL A. PETERSON** (1997) Professor. BS, University of Washington; PhD, Cornell University.

**LYNN J. PILLITTERI** (2008) Assistant Professor. BS, State University of New York at Binghamton; MS, PhD, University of California, Riverside.

**SANDRA SCHULZE** (2006) Associate Professor. BS, University of British Columbia; PhD, Simon Fraser University.

**DIETMAR SCHWARZ** (2008) Assistant Professor. Diplom Biology, Christian-Albrechts Universität, Kiel, Germany; PhD Pennsylvania State University.

**ANU SINGH-CUNDY** (1996) Associate Professor. BSc, MSc, Delhi University, Delhi, India; PhD, Cornell University.

**CAROL TRENT** (1989) Professor. BS, Indiana University; PhD, Massachusetts Institute of Technology.

**JEFF C. YOUNG** (1999) Professor. BA, PhD, Ohio State University.

### *Affiliated Teaching Faculty*

**GEORGIANNE CONNELL** (2004) Senior Instructor. BA, Seattle Pacific University; MS, Western Washington University.

**JANICE LAPSANSKY** (1985) Senior Instructor. BS, Seattle University; MS, Western Washington University.

**CARRIE SCHWARZ** (2008) Senior Instructor. BS, University of Maryland; MS, PhD, Pennsylvania State University.

**JOSÉ SERRANO-MORENO** (2007) Senior Instructor. BS, Universidad Central de Venezuela; MS, Venezuelan Institute of Scientific Research; PhD, Case Western Reserve University.

# BIOLOGY

## **Research Associates**

**DAVID L. ALLES** BS, University of Colorado; MS, Western Washington University.

**GEORGE H. CZERLINSKI** BS, University of Hamburg; MS, Northwestern University; PhD, University of Göttingen.

**MELISSA MINER** BS, University Of California-Santa Cruz; MS, University of California, Moss Landing Marine Lab.

**FREDERICK M. RHOADES** BA, Swarthmore; MS, Oregon State University; PhD, University of Oregon.

## **Adjunct Faculty**

**JOHN BOWER** BS, PhD, Cornell University.

**JENNIFER PURCELL** BS, MS, Stanford University; PhD, University of California-Santa Barbara.

**SUZANNE STROM** BA, Middlebury College; MA, Harvard University; PhD, University of Washington.

**STEPHEN SULKIN** BA, Miami University; MS, PhD, Duke University.

**KATHRYN L. VAN ALSTYNE** BS, University of Rhode Island; PhD, University of Washington

## **Departmental Mission**

In support of the mission of Western Washington University and the College of Sciences and Technology, the mission of the Biology Department is to provide an outstanding learning environment that integrates education, scholarship, and service in order to actively engage students in the biological sciences and foster their development as lifelong learners. Successful graduates of our Department will understand fundamental biological principles in depth, will have laboratory and field skills to address biological questions, will have enhanced critical thinking and quantitative skills, will be able to communicate precisely and analytically in written and oral forms, and will be able to engage independently and collaboratively to be thoughtful and productive contributors to society.

We accomplish this mission by:

- Offering a broad-based, rigorous, and integrative curriculum
- Providing diverse upper-division courses that foster critical thinking and quantitative reasoning skills
- Offering opportunities for undergraduate research and writing
- Providing for timely completion of degree

## **Other Departmental Information**

### *Facilities and Resources*

The Biology building includes well-equipped teaching and research labs, and two multimedia lecture halls and two on-campus greenhouse facilities that support teaching and research. The Shannon Point Marine Center in Anacortes supports research and teaching in marine science. Western's geographic location offers fascinating learning opportunities for students in biology. The variety of plant communities and climatic patterns of the Cascade and Olympic Mountains and nearby lowlands, the numerous ponds and lakes, streams and rivers and the many marine habitats provide a rich diversity of organisms for students to encounter and study.

### *Undergraduate Programs*

Our programs are designed for students with broad or specialized interests in the biological sciences. They are intended to (1) prepare undergraduates for graduate studies in diverse areas of biology; (2) prepare students for advanced study in the health professions [e.g., medicine, veterinary medicine, dentistry]; (3) provide a broad exposure to biology for students who want a general science education as biologists and teachers; and (4) provide students with a foundation in biology that is combined with another discipline.

- BA Biology - flexible, student-advisor designed program
- BS Biology - General Emphasis - flexible, student-advisor designed program
- BS Biology - Ecology, Evolution and Organismal Biology Emphasis - focuses on the structure, function, ecology & evolution of organisms

- BS Biology - Marine Emphasis - focuses on the structure and function of marine organisms and their relationship with the environment
- BS Biology - Molecular and Cell Emphasis - focuses on biochemistry, cell biology, molecular genetics and genomics of prokaryotic and eukaryotic model organisms
- BS Biology - Secondary Teaching Emphasis - prepares students for a state teaching endorsement in biology
- BS Biology/Anthropology - focuses on human biology and behavioral science
- BS Biology/Mathematics - brings biology together with linear algebra, advanced calculus and methods of computer programming and mathematical modeling
- BA Behavioral Neuroscience - emphasizes neurobiology and the psychology of normal and abnormal behavior at the molecular and organismal level
- BAE Chemistry/Biology - Secondary - a combined study of biology and chemistry courses for teaching endorsements

#### *Declaration Process*

The Biology Department has a two-step process for admission into our degree programs. Phase I students are those who have declared their intent to major in biology, and are in the process of completing the introductory courses. Admission to Phase II is based on academic performance in the introductory courses (CHEM 121, 122, 123 and BIOL 204, 205, 206). Students must achieve an average grade of 2.9 or higher in their introductory biology and general chemistry courses before they can advance to Phase II and begin taking upper-division coursework.

#### *Mid-Program Checkpoint*

Students seeking to complete a BS degree in biology within a four-year time span should have completed these courses prior to their junior year: MATH 124; CHEM 121, CHEM 123, CHEM 122; BIOL 204, BIOL 206, BIOL 205; CHEM 351, CHEM 352; ENG 101; plus 18 credits from the non-science/math GUR sections. Major omissions from this list will make it difficult or impossible to complete this degree within two additional years.

#### *Teaching Careers in Biology*

Students wishing to teach at the high school-level in the Washington State public schools need to seek advisement prior to or at the beginning of their third year of college. A Biology Endorsement is earned by completion of the courses in the Biology BS-Secondary Teaching Emphasis and the certification program in Woodring College of Education ([www.wce.wvu.edu/Resources/Certification/](http://www.wce.wvu.edu/Resources/Certification/)).

A Science Endorsement may be completed by taking the additional courses of GEOL 211, GEOL 212; and ASTR 315. All courses for the state teaching endorsement must be completed with a C (2.0) or higher. Students who wish to teach at the college-level complete a Biology BS or BA degree and continue graduate work leading to a master's or doctoral degree.

#### *Transfer Students*

Transfer students will be well prepared for admission and able to complete a biology major in two more years if they have completed MATH 124 and an introductory biology, an introductory chemistry and an introductory physics series intended for biology majors; have earned excellent grades in each of these courses; and state in the personal letter for admission their educational goals and that they can no longer progress toward these goals at their present institution.

#### *Access to Biology Classes*

Because of high student demand for many upper-division biology courses, the Biology Department must give enrollment priority to students for whom these courses are required for their major over students who want to take them as electives. Registration details for biology courses are listed on the Biology Department Registration webpage at: <http://www.biol.wvu.edu/biology/registration.shtml>.

## Graduate Study

For concentrations leading to the Master of Education or the Master of Science degrees, see the *Graduate School* section of this catalog.

## Bachelor of Arts

### Anthropology/Biology, BA (see Anthropology Department)

Anthropology/Biology, BA (see Anthropology Department)

### Behavioral Neuroscience, BA (see Psychology Department)

Behavioral Neuroscience, BA (see Psychology Department)

### Biology, BA

Department of Biology, College of Sciences and Technology

#### 74-76 credits

#### Introduction/What is the Study of Biology?

Biology, as the study of living things, is an academic endeavor with a basic research focus on seeking answers to questions rather than on applying biological knowledge to solve problems. As scientists, biologists have two prime motivations: (1) intellectual curiosity about biological systems, and (2) the philosophy that creating and disseminating reliable knowledge has intrinsic worth.

The B.A. in Biology is designed for students who want to make biology the focus of a liberal arts education and are not directly interested in post-graduate study or professional careers in biology or teaching. The number of required courses in the B.A. Biology degree has been kept low to permit you to add other areas of study and courses suited to your needs and interests.

If you would like to pursue a Bachelor of Arts degree, you may wish to combine your interest in Biology with a focus of course work in areas such as History or Political Science. Other disciplines such as Art, English, Journalism, Sociology, Economics, Philosophy, Business, Physical Education, Psychology or Speech are also beneficial to you if pursuing a Bachelor of Arts in Biology.).

#### Why Consider a Biology Major?

Are you interested in Biology but do not want a career in biology? Do you want a liberal arts education with a focus on Biology? Do you want to know all about the life that you see, hear, touch, taste and smell and how this affects us? Do you have interests in other scholastic areas as well? Consider a Bachelors of Arts in Biology!

#### Contact Information

##### Department Chair

Joann Otto  
Biology 315  
360-650-4044  
Joann.Otto@wwu.edu

##### Major Information Program Coordinator

Maren Brinson  
Biology 315  
360-650-6165  
Maren.Brinson@wwu.edu

#### Sample Careers

Lobbyist | Scientific Illustrator | Science Writer | Public Outreach | Nursing | Physician Assistant | Dental Assistant | Regulatory Affairs | Pathology Assistant | Biological Photographer | Laboratory Technician

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

The Biology Department has a two-step process for admission into our degree programs. Phase I students are students who have declared their intent to major in biology and are in the process of completing the introductory biology (BIOL 204, 205, 206) and general chemistry (CHEM 121, 122, 123) series. Admission to Phase II is based on academic performance in the introductory courses. Students must achieve an average grade of 2.9 or higher in their introductory biology and general chemistry courses before they can advance to Phase II and begin taking upper-division coursework.

Major requirements include 56-58 credits of foundational courses in biology, chemistry, physics and math and 18 credits of upper-division depth and elective courses. Biology Phase II status required for admission into 300- and 400-level biology courses for biology majors.

**Grade Requirements**

A grade of C- or better is required for a student's major courses.

**Requirements**

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- BIOL 321 - Genetics
- BIOL 323 - Cell and Molecular Biology
- BIOL 325 - Ecology
- BIOL 432 - Evolutionary Biology
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - or
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- CHEM 251 - Elementary Organic Chemistry
- MATH 240 - Introduction to Statistics or equivalent
- One course from:
  - PHYS 101 - Physics Analysis
  - OR
  - PHYS 114 - Principles of Physics I
- 18 credits of upper-division biology courses approved by faculty advisor.

**Bachelor of Arts in Education****Chemistry/Biology - Secondary, BAE (see Chemistry Department)**

Chemistry/Biology - Secondary, BAE (see Chemistry Department)



## Bachelor of Science

### Biology - Ecology, Evolution, and Organismal Biology (EEO) Emphasis, BS

Department of Biology, College of Sciences and Technology

#### 95-96 credits

#### Introduction/What is the Study of Biology?

Biology is the study of living things, an academic endeavor with a basic research focus on seeking answers to questions rather than on applying biological knowledge to solve problems. As scientists, biologists have two prime motivations: (1) intellectual curiosity about biological systems, and (2) the philosophy that creating and disseminating reliable knowledge has intrinsic worth. Thus, we intend for our intensive academic program to stimulate our students' curiosity and appetite for life-long learning about biology.

The biology curriculum provides an effective combination of knowledge in areas that students can apply to many careers. The supporting courses for the Biology major in math, physics, and chemistry, along with the biology core curriculum at the 200-level and 300-level, plus one 400-level course in evolution, fulfill the goals of a liberal arts education. Students select 300-level and 400-level specialty courses that focus on ecology, evolution, plant or animal biology. In these courses students not only pursue their interests more specifically, but begin to integrate and apply knowledge, and develop the skills and abilities to pursue careers of their choosing.

Hence, the integrated conceptual foundation in biology, the critical thinking skills, quantitative problem-solving abilities, leadership with team-building skills, and scientific research skills students obtain from lecture and laboratory courses in the B.S. Biology curriculum ultimately are critical for post-baccalaureate studies and future job performance. We expect that students who graduate with a B.S. or B.A. in Biology can apply their education to a variety of jobs across careers.

#### Why Consider an Ecology, Evolution, and Organismal Biology Emphasis in the Biology Major?

This degree program focuses on the structure, function, ecology and evolution of organisms, with an emphasis on plants and animals. A diploma granted under this major will indicate "Bachelor of Science"; official transcripts will indicate Biology – Ecology, Evolution and Organismal Biology Emphasis.

#### Contact Information

##### Department Chair

Joann Otto  
Biology 315  
360-650-4044  
Joann.Otto@wwu.edu

##### Major Information Program Coordinator

Maren Brinson  
Biology 315  
360-650-6165  
Maren.Brinson@wwu.edu

#### Sample Careers

Botanist | Conservation Biologist | Educator | Ecologist | Environmental Consultant | Evolutionary Biologist | Field Biologist | Laboratory Technician

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

The Biology Department has a two-step process for admission into our degree programs. Phase I students are students who have declared their intent to major in biology and are in the process of completing the introductory biology (BIOL 204, 205, 206) and general chemistry (CHEM 121, 122, 123) series. Admission to Phase II is based on academic performance in the introductory courses. Students must have achieved an

average grade of 2.9 or higher in their introductory biology and general chemistry courses before they can advance to Phase II and begin taking upper-division coursework.

Major requirements include 74-76 credits of foundational courses in biology, chemistry, physics and math, and 19 upper division biology depth and elective credits. Biology Phase II status is required for admission into 300- and 400-level biology courses for biology majors.

### Grade Requirements

A grade of C- or better is required for a student's major courses.

### Requirements

#### Basic Requirements:

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- BIOL 321 - Genetics
- BIOL 323 - Cell and Molecular Biology
- BIOL 325 - Ecology
- BIOL 340 - Biometrics
- BIOL 432 - Evolutionary Biology
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - OR
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
  - CHEM 351 - Organic Chemistry
  - CHEM 352 - Organic Chemistry
  - One course from:
    - MATH 124 - Calculus and Analytic Geometry I
    - MATH 134 - Calculus I Honors
  - Choose one of the following series:
    - PHYS 114 - Principles of Physics I
    - PHYS 115 - Principles of Physics II
    - PHYS 116 - Principles of Physics III
    - OR
    - PHYS 161 - Physics with Calculus I
    - PHYS 162 - Physics with Calculus II
    - PHYS 163 - Physics with Calculus III

#### Depth Requirements:

- One of the Following:
  - BIOL 322 - Genetics Lab
  - BIOL 324 - Methods in Molecular Biology
  - BIOL 326 - Ecology Laboratory

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Two additional upper-division lab (or lecture and lab) courses, including at least one 400-level course from the list of courses below. An additional lab course from these categories can be used to complete the lab requirements.

Three courses (including required lecture and lab courses) chosen from the categories below, with at least one course from each category.

Ecological and Evolutionary Processes:

- BIOL 403 - Physiological Ecology of Animals
- BIOL 405 - Microbial Ecology
- BIOL 407 - Marine Ecology
- BIOL 408 - Ecological Methods
- BIOL 409 - Research Reptile Ecology
- BIOL 410 - Animal Behavior
- BIOL 416 - Ecosystem Ecology and Global Change
- BIOL 424 - Applied Molecular Ecology
- BIOL 433 - Quaternary Biogeography
- BIOL 436 - Molecular Phylogeny and Microbial Diversity
- BIOL 437B - Tropical Marine Ecology
- BIOL 450 - Plant Anatomy
- BIOL 467 - Comparative Vertebrate Physiology
- BIOL 468 - Comparative Vertebrate Physiology Laboratory
- BIOL 482 - Developmental Biology of Animals

Taxon Diversity and Organismal Biology:

- BIOL 405 - Microbial Ecology
- BIOL 436 - Molecular Phylogeny and Microbial Diversity
- BIOL 437A - Tropical Marine Organismal Biology
- BIOL 452 - Systematic Botany
- BIOL 456 - Algae
- BIOL 460 - Invertebrate Zoology
- BIOL 462 - Entomology
- BIOL 464 - Biology of Marine Mammals
- BIOL 465 - Vertebrate Zoology
- BIOL 467 - Comparative Vertebrate Physiology

Electives:

0-4 credits to make 95-96 total (75-76 credits of basic requirements and 19 upper-division biology depth and elective credits). No more than 3 credit hours combined in BIOL 395, 496 and 498 can be applied to this category. Additional biology elective credits can be taken to fulfill University graduation requirements:

- Any 300 or 400-level biology course under advisement, including BIOL 300, 400, 444 and 497.
- ESCI courses under advisement.

## **Biology - General Emphasis, BS**

Department of Biology, College of Sciences and Technology

### **95-96 credits**

#### **Introduction/What is the Study of Biology?**

Biology is the study of living things, an academic endeavor with a basic research focus on seeking answers to questions rather than on applying biological knowledge to solve problems. As scientists, biologists have two

prime motivations: (1) intellectual curiosity about biological systems, and (2) the philosophy that creating and disseminating reliable knowledge has intrinsic worth. Thus, we intend for our intensive academic program to stimulate our students' curiosity and appetite for life-long learning about biology.

The biology curriculum provides an effective combination of knowledge in areas that students can apply to many careers. The supporting courses for the Biology major in math, physics, and chemistry, along with the biology core curriculum at the 200-level and 300-level, plus one 400-level course in evolution, fulfill the goals of a liberal arts education. In 400-level courses students not only pursue interests more specifically, but begin to integrate and apply knowledge, and develop the skills and abilities to pursue careers of their choosing. Hence, the integrated conceptual foundation in biology, the critical thinking skills, quantitative problem-solving abilities, leadership with team-building skills, and scientific research skills students obtain from lecture and laboratory courses in the B.S. Biology curriculum ultimately are critical for post-baccalaureate studies and future job performance. We expect that students who graduate with a B.S. or B.A. in Biology can apply their education to a variety of jobs across careers.

### Why Consider a General Emphasis in the Biology Major?

This degree program allows students to develop an upper-division curriculum tailored to meet their educational needs with the help of their faculty advisor. A diploma granted under this major will indicate "Bachelor of Science"; official transcripts will indicate Biology – General Emphasis.

#### Contact Information

Department Chair	Major Information Program Coordinator
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#### Sample Careers

Botanist | Ecologist | Biology Educator | Marine Scientist | Biotechnologist | Laboratory Technician | Physician Assistant | Pharmacist | Dentist | Medical Doctor

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

The Biology Department has a two-step process for admission into our degree programs. Phase I students are students who have declared their intent to major in biology and are in the process of completing the introductory biology (BIOL 204, 205, 206) and general chemistry (CHEM 121, 122, 123) series. Admission to Phase II is based on academic performance in the introductory courses. Students must achieve an average grade of 2.9 or higher in their introductory biology and general chemistry courses before they can advance to Phase II and begin taking upper-division coursework.

Major requirements include 76-77 credits of foundational courses in biology, chemistry, physics and math, and 19 upper division biology depth and elective credits. Biology Phase II status required for admission into 300- and 400-level biology courses for biology majors.

### Grade Requirements

A grade of C- or better is required for a student's major courses.

#### Requirements

##### Basic Requirements:

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology

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- BIOL 206 - Introduction to Organismal Biology
- BIOL 321 - Genetics
- BIOL 323 - Cell and Molecular Biology
- BIOL 325 - Ecology
- BIOL 340 - Biometrics
- BIOL 432 - Evolutionary Biology
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - or
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- CHEM 351 - Organic Chemistry
- CHEM 352 - Organic Chemistry
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 134 - Calculus I Honors
- Choose one of the following series:
  - PHYS 114 - Principles of Physics I
  - PHYS 115 - Principles of Physics II
  - PHYS 116 - Principles of Physics III
  - or
  - PHYS 161 - Physics with Calculus I
  - PHYS 162 - Physics with Calculus II
  - PHYS 163 - Physics with Calculus III

### Depth Requirements:

- One course from:
  - BIOL 322 - Genetics Lab
  - BIOL 324 - Methods in Molecular Biology
  - BIOL 326 - Ecology Laboratory
  - BIOL 346 - Microbiology Lab
  - BIOL 349 - Human Physiology
- Two additional upper-division lab (or lecture and lab) courses, including at least one 400-level course. Students must select courses with departmental advisement/approval. These courses may be applied to other requirements in the Biology - General Emphasis major.
  - BIOL 322 - Genetics Lab
  - BIOL 324 - Methods in Molecular Biology
  - BIOL 326 - Ecology Laboratory
  - BIOL 346 - Microbiology Lab
  - BIOL 349 - Human Physiology
  - BIOL 403 - Physiological Ecology of Animals
  - BIOL 404 - Plant Ecology
  - BIOL 407 - Marine Ecology
  - BIOL 408 - Ecological Methods
  - BIOL 409 - Research Reptile Ecology
  - BIOL 450 - Plant Anatomy

- BIOL 452 - Systematic Botany
- BIOL 456 - Algae
- BIOL 460 - Invertebrate Zoology
- BIOL 462 - Entomology
- BIOL 465 - Vertebrate Zoology
- BIOL 468 - Comparative Vertebrate Physiology Laboratory
- BIOL 474 - Biochemistry Laboratory
- BIOL 479 - Plant Physiology
- BIOL 484 - Cell Biology Laboratory
- 10 credit hours in selected 400-level courses excluding:
  - BIOL 432 - Evolutionary Biology
  - BIOL 494 - Biology Research
  - BIOL 495 - Research Communication
  - BIOL 496 - Professional Work Experience in Biology
  - BIOL 498 - Teaching Practicum

Electives:

4-7 credits to make 95-96 (76-77 credits of basic requirements plus 19 upper-division biology depth and elective credits). No more than 3 credit hours combined in BIOL 395, 496 and 498 and no more than 4 credit hours combined in BIOL 494 and 495 can be applied to this category. Additional biology elective credits can be taken to fulfill University graduation requirements:

- Any 300 or 400-level biology course under advisement.

## **Biology - Marine Emphasis, BS**

Department of Biology, College of Sciences and Technology

### **99-100 Credits**

#### **Introduction/What is the Study of Biology?**

Biology is the study of living things, an academic endeavor with a basic research focus on seeking answers to questions rather than on applying biological knowledge to solve problems. As scientists, biologists have two prime motivations: (1) intellectual curiosity about biological systems, and (2) the philosophy that creating and disseminating reliable knowledge has intrinsic worth. Thus, we intend for our intensive academic program to stimulate our students' curiosity and appetite for life-long learning about biology.

The B.S. Biology – Marine Emphasis provides a thorough introduction to the basic areas of biology and supporting sciences while allowing specialization in marine biology. The supporting courses for the major in math, physics, and chemistry, along with the biology core curriculum at the 200-level and 300-level, plus one 400-level course in evolution, fulfill the goals of a liberal arts education. Students select 300-level and 400-level specialty courses that focus on marine biology. In these courses students not only pursue their interests more specifically, but begin to integrate and apply knowledge, and develop the skills and abilities to pursue careers of their choosing.

Hence, the integrated conceptual foundation in biology, the critical thinking skills, quantitative problem-solving abilities, leadership with team-building skills, and scientific research skills students obtain from lecture and laboratory courses in the B.S. Biology curriculum ultimately are critical for post-baccalaureate studies and future job performance. We expect that students who graduate with a B.S. or B.A. in Biology can apply their education to a variety of jobs across careers.

#### **Why Consider a Marine Emphasis in the Biology Major?**

Marine biology is the study of the structure and function of marine organisms and their relationship with the environment. This degree provides students with a solid foundation in all of the major sub-disciplines of

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biology with emphasis on the biology of marine organisms and their environments. A diploma granted under this major will indicate "Bachelor of Science"; official transcripts will indicate Biology – Marine Emphasis.

## Contact Information

### Department Chair

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Joann.Otto@wwu.edu

### Major Information Program Coordinator

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360-650-6165  
Maren.Brinson@wwu.edu

## Sample Careers

Marine Scientist | Fisher Biologist | Ecologist | Conservation Biologist | Naturalist | Laboratory Technician

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

The Biology Department has a two-step process for admission into our degree programs. Phase I students are students who have declared their intent to major in biology and are in the process of completing the introductory biology (BIOL 204, 205, 206) and general chemistry (CHEM 121, 122, 123) series. Admission to Phase II is based on academic performance in the introductory courses. Students must achieve an average grade of 2.9 or higher in their introductory biology and general chemistry courses before they can advance to Phase II and begin taking upper-division coursework.

Major requirements include 81-82 credits of foundational courses in biology, chemistry, physics and math, and 19 upper division biology depth and elective credits. Biology Phase II status required for admission into 300- and 400-level biology courses for biology majors.

## Grade Requirements

A grade of C- or better is required for a student's major courses.

## Requirements

### Basic Requirements:

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- BIOL 321 - Genetics
- BIOL 323 - Cell and Molecular Biology
- BIOL 325 - Ecology
- BIOL 340 - Biometrics
- BIOL 432 - Evolutionary Biology
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - or
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- CHEM 351 - Organic Chemistry
- CHEM 352 - Organic Chemistry

- ❑ One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 134 - Calculus I Honors

❑ Choose one of the following series:

- PHYS 114 - Principles of Physics I
- PHYS 115 - Principles of Physics II
- PHYS 116 - Principles of Physics III  
or
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III

Depth Requirements:

- ❑ ESCI 321 - Oceanography
- ❑ Three upper-division lab classes:
  - BIOL 326 - Ecology Laboratory
  - One lecture and lab course from the list of courses below
  - One additional 300- or 400-level lab (or lecture and lab) course
- ❑ 13-15 credits from the following courses (includes the required lecture and lab courses chosen from this category):
  - BIOL 403 - Physiological Ecology of Animals
  - BIOL 405 - Microbial Ecology
  - BIOL 407 - Marine Ecology
  - BIOL 437A - Tropical Marine Organismal Biology
  - BIOL 437B - Tropical Marine Ecology
  - BIOL 456 - Algae
  - BIOL 460 - Invertebrate Zoology
  - BIOL 464 - Biology of Marine Mammals

Electives:

1-3 credits to make 99-100 total (76-77 credits of basic requirements plus 23 upper-division biology depth and elective credits).

Additional biology elective credits can be taken to fulfill University graduation requirements.

## **Biology – Molecular and Cell Biology Emphasis, BS**

Department of Biology, College of Sciences and Technology

### **99-105 credits**

#### **Introduction/What is the Study of Biology?**

Biology, as the study of living things, is an academic endeavor with a basic research focus on seeking answers to questions rather than on applying biological knowledge to solve problems. As scientists, Biologists have two prime motivations: (1) intellectual curiosity about biological systems, and (2) the philosophy that creating and disseminating reliable knowledge has intrinsic worth. Thus, we intend for our intensive academic program in Biology to stimulate our students' curiosity and appetite for life-long learning about biology.

This major is part of an interdisciplinary program between the Biology and Chemistry Departments. The B.S. degree in Molecular and Cell Biology places a greater emphasis on the molecular biology and biochemistry that control cell functions. The curriculum provides an effective combination of knowledge in areas that students can apply to many careers. Supporting courses in math, physics, and chemistry, along with the core biology curriculum at the 200-level and 300-levels fulfill the goals of a liberal arts education. In 400-level



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biochemistry and molecular biology courses students not only pursue interests more specifically, but begin to integrate and apply knowledge, and develop the skills and abilities to pursue careers of their choosing. Hence, the integrated conceptual foundation in biology, the critical thinking skills, quantitative problem-solving abilities, leadership with team-building skills, and scientific research skills students obtain from lecture and laboratory courses in the Molecular and Cell Biology B.S. curriculum ultimately are critical for post-baccalaureate studies and for future job performance.).

## Why Consider a Molecular and Cell Emphasis in the Biology Major?

Cell biology is the study of the structure of cells, the organelles they contain, physiological functions, life cycle, division and death, often studied at the biochemical or molecular level. Molecular biology investigates the interactions among DNA, RNA and protein synthesis within cells as well as understanding how these interactions are regulated using the tools and principles of genetics and bioinformatics gained from prokaryotic and eukaryotic model organisms. Molecular Biology is among the most rapidly growing fields within Biology with recent accomplishments such as the sequencing of the entire human genome.

### Contact Information

Department Chair	Major Information Program Coordinator
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### Sample Careers

Biomedical Research | Pharmaceutical Research | Bioinformatics | Cell Physiology | Forensic Scientist | Genetic Counseling | Geneticist | Medical Doctor

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

The Biology Department has a two-step process for admission into our degree programs. Phase I students are students who have declared their intent to major in biology, and are in the process of completing the introductory biology (BIOL 204, 205, 206) and general chemistry (CHEM 121, 122, 123) series. Admission to Phase II is based on academic performance in the introductory courses. Students must achieve an average grade of 2.9 or higher in their introductory biology and general chemistry courses before they can advance to Phase II and begin taking upper-division coursework.

Major requirements include 75-77 credits of foundational courses in biology, chemistry, physics and math, and 24-28 upper division biology depth and elective credits. Biology Phase II status required for admission into 300- and 400-level biology courses for biology majors.

## Grade Requirements

A grade of C- or better is required for a student's major courses.

### Requirements

#### Basic Requirements:

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- BIOL 321 - Genetics
- BIOL 323 - Cell and Molecular Biology
- BIOL 432 - Evolutionary Biology

- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - or
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
  - CHEM 351 - Organic Chemistry
  - CHEM 352 - Organic Chemistry
  - CHEM 353 - Organic Chemistry
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 134 - Calculus I Honors
- One course from:
  - MATH 240 - Introduction to Statistics
  - MATH 341 - Probability and Statistical Inference
  - BIOL 340 - Biometrics
- Choose one of the following series:
  - PHYS 114 - Principles of Physics I
  - PHYS 115 - Principles of Physics II
  - PHYS 116 - Principles of Physics III
  - or
  - PHYS 161 - Physics with Calculus I
  - PHYS 162 - Physics with Calculus II
  - PHYS 163 - Physics with Calculus III

## Depth Requirements:

- BIOL 324 - Methods in Molecular Biology
- BIOL 345 - Fundamentals of Microbiology
- BIOL 471 - Biochemistry I
- Choose two of the following:
  - BIOL 322 - Genetics Lab
  - BIOL 346 - Microbiology Lab
  - BIOL 474 - Biochemistry Laboratory
  - BIOL 484 - Cell Biology Laboratory
- Choose option A or option B:
  - Option A:**
    - One of:
      - BIOL 451 - Developmental Biology of Plants
      - BIOL 482 - Developmental Biology of Animals
    - One of:
      - BIOL 470 - Functional Genomics
      - BIOL 473 - Molecular Biology
  - Option B:**
    - BIOL 470 - Functional Genomics AND
    - BIOL 473 - Molecular Biology

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## Electives:

3 credits to make 99-105 total (75-77 credits of basic requirements plus 24-28 upper-division biology depth and elective credits). Additional biology elective credits can be taken to fulfill University graduation requirements:

- BIOL 325 - Ecology
- BIOL 424 - Applied Molecular Ecology
- BIOL 472 - Biochemistry II
- BIOL 486 - Topics in Molecular Mechanisms of Neurodevelopment  
BIOL 395, 444, 494, 495, 496, 497, 498, and any other 400-level course listed under depth options
- CHEM 425I - Immunology.
- CHEM 425T - Virology.  
Any 400-level chemistry course

## **Biology – Secondary Teaching Emphasis, BS**

Department of Biology, College of Sciences and Technology

### **97-100 credits**

#### **Introduction/What is the Study of Biology-Secondary Teaching Emphasis?**

Biology, as the study of living things, is an academic endeavor with a basic research focus on seeking answers to questions rather than on applying biological knowledge to solve problems. As scientists, biologists have two prime motivations: (1) intellectual curiosity about biological systems, and (2) the philosophy that creating and disseminating reliable knowledge has intrinsic worth.

The broad biology curriculum for this major prepares students for a teaching endorsement in biology. The supporting courses for the major in math, physics, and chemistry, along with the biology core curriculum at the 200-level and 300-level, plus one 400-level course in evolution, fulfill the goals of a liberal arts education. The depth courses for this major provide students with a broad background in biology that includes laboratory courses in genetics, molecular and organismal biology as well as a course that examines the relationship between science and society.

A diploma granted under this major will indicate "Bachelor of Science"; official transcripts will indicate Biology and the area of emphasis.

Major requirements include 75-77 credits of foundational courses in biology, chemistry, physics and math, and 22-23 upper-division biology depth and elective credits. Biology Phase II status required for admission into 300- and 400-level biology courses for biology majors.

To receive a recommendation for state of Washington certification, students must complete a professional preparation program in secondary education. See the Secondary Education section of this catalog for program admission, completion and teacher certification requirements for Woodring College of Education.

A Biology endorsement with a teaching certification will require taking SCED 481 and 491 after being admitted to Woodring College of Education. Students who elect to complete certification as an undergraduate while completing a Biology Bachelor of Science degree can count these two courses as electives for the BS. To receive a Science endorsement, take GEOL 211 and 212, and ASTR 315 in addition to the courses listed for the Biology endorsement.

#### **Why Consider a Secondary Teaching Emphasis in Biology Major?**

The B.S. Biology – Secondary Teaching Emphasis will allow a student to become a secondary school teacher while giving her or him the flexibility to pursue any other career in biology or continue to post-baccalaureate studies. A diploma granted under this major will indicate "Bachelor of Science"; official transcripts will indicate Biology – Secondary Teaching Emphasis.

## Contact Information

**Department Chair**

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**Major Information Program****Coordinator**

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**Biology-Education Advisor**

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 Biology 309  
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 Alejandro.Acevedo-  
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**Secondary Education Website**

<http://www.wce.wwu.edu/Depts/SEC>

## Sample Careers

Biology Teacher

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

The Biology Department has a two-step process for admission into our degree programs. Phase I students are students who have declared their intent to major in biology and are in the process of completing the introductory biology (BIOL 204, 205, 206) and general chemistry (CHEM 121, 122, 123) series. Admission to Phase II is based on academic performance in the introductory courses. Students must achieve an average grade of 2.9 or higher in their introductory biology and general chemistry courses before they can advance to Phase II and begin taking upper-division coursework.

**Grade Requirements**

A grade of C- or better is required for a student's major courses. Science courses required for state teaching endorsements must be completed with a grade of C (2.0) or better.

## Requirements

## Basic Requirements:

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- BIOL 321 - Genetics
- BIOL 323 - Cell and Molecular Biology
- BIOL 325 - Ecology
- BIOL 432 - Evolutionary Biology
- One course from:
  - BIOL 340 - Biometrics
  - MATH 240 - Introduction to Statistics
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - OR
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors

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- CHEM 225 - General Chemistry III, Honors
- CHEM 351 - Organic Chemistry
- CHEM 352 - Organic Chemistry
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 134 - Calculus I Honors
- Choose one of the following series:
  - PHYS 114 - Principles of Physics I
  - PHYS 115 - Principles of Physics II
  - PHYS 116 - Principles of Physics III
  - or
  - PHYS 161 - Physics with Calculus I
  - PHYS 162 - Physics with Calculus II
  - PHYS 163 - Physics with Calculus III

### Depth Requirements:

- BIOL 326 - Ecology Laboratory
- One course from:
  - BIOL 322 - Genetics Lab
  - BIOL 324 - Methods in Molecular Biology
- One of the following:
  - BIOL 460 - Invertebrate Zoology
  - BIOL 465 - Vertebrate Zoology
  - BIOL 467 - Comparative Vertebrate Physiology (AND)
  - BIOL 468 - Comparative Vertebrate Physiology Laboratory
  - BIOL 482 - Developmental Biology of Animals (AND)
  - BIOL 484 - Cell Biology Laboratory
- One of the following:
  - BIOL 450 - Plant Anatomy
  - BIOL 451 - Developmental Biology of Plants
  - BIOL 452 - Systematic Botany
  - BIOL 479 - Plant Physiology
- SCED 370 - Science and Society

### Electives:

0-2 credits to make 97-100 total (75-77 credits of basic requirements plus 22-23 upper-division biology depth and elective credits). Additional elective credits can be taken to fulfill University graduation requirements.

Upper-division courses under advisement, including:

- SCED 481 - Fundamentals of Teaching Science
- SCED 491 - Methods in Secondary Education for Science Teachers (see comments above)

## **Biology/Anthropology, BS**

Combined major offered by the Department of Biology, College of Sciences and Technology and the Department of Anthropology, College of Humanities and Social Sciences.

### **102-105 Credits**

### Introduction/What is the Study of Biology/Anthropology?

Biological or Physical Anthropology is the study of both present and past human variation relative to local ecologies and cultures. Biological Anthropologists specialize in human or primate anatomy, disease ecology, growth and development, forensic anthropology and osteology, medical anthropology, primate behavior, and paleoanthropology.

Biology, the scientific study of living things, includes a broad spectrum of fascinating fields. Cell and molecular biology, developmental genetics, systematics and evolution, botany, zoology, marine biology, microbial ecology, plant and animal ecology, physiological and behavioral ecology and science education are some of the specialties of study that students can pursue with the Biology faculty at Western.

### Why Consider a Biology/Anthropology Major?

The Biology/Anthropology major concentrates on human biology and behavioral science. This major is most useful for those continuing on in applied health careers such as: Medicine, Osteopathy, Optometry, Dentistry, etc. It is also useful for Epidemiology, public health and graduate programs in Human Biology and Biological Anthropology.

#### Contact Information

##### Anthropology Program Advisor

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##### Anthropology Program Advisor

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##### Biology Program Advisor

Roger Anderson  
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##### Biology Program Advisor

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##### Biology Program Coordinator

Maren Brinson  
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Maren.Brinson@wwu.edu

#### Sample Careers

Medical Doctor | Physicians Assistant | Applied Health Professions | Museum Conservator | Forensic Anthropologist

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

The Biology Department has a two-step process for admission into our degree programs. Phase I students are students who have declared their intent to major in biology and are in the process of completing the introductory biology (BIOL 204, 205, 206) and general chemistry (CHEM 121, 122, 123) series. Admission to Phase II is based on academic performance in the introductory courses. Students must achieve an average grade of 2.9 or higher in their introductory biology and general chemistry courses before they can advance to Phase II and begin taking upper-division coursework.

Major requirements include 79-85 credits of foundational courses in anthropology, biology, chemistry, physics and math, 19-22 depth and elective credits, and 1 completion credit. Biology Phase II status required for admission into 300- and 400-level biology courses for biology majors.

### Grade Requirements

A grade of C- or better is required for a student's major courses.

Requirements

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## Basic Requirements:

- ANTH 201 - Introduction to Cultural Anthropology
- ANTH 210 - Introduction to Archaeology
- ANTH 215 - Introductory Biological Anthropology
- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- BIOL 321 - Genetics
- One course from:
  - BIOL 325 - Ecology
  - ANTH 350 - The Ecology of Human Variation
- One course from:
  - BIOL 340 - Biometrics
  - ANTH 335 - Quantitative Methods in Anthropology
- One course from:
  - BIOL 432 - Evolutionary Biology
  - ANTH 423 - Human Evolution
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - or
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- Choose from:
  - CHEM 351 - Organic Chemistry
  - CHEM 352 - Organic Chemistry
  - OR
  - CHEM 251 - Elementary Organic Chemistry (only with advisor's approval)
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 134 - Calculus I Honors
  - MATH 138 - Accelerated Calculus
- Choose one of the following series:
  - PHYS 114 - Principles of Physics I
  - PHYS 115 - Principles of Physics II
  - or
  - PHYS 161 - Physics with Calculus I
  - PHYS 162 - Physics with Calculus II
  - PHYS 163 - Physics with Calculus III

## Depth requirements:

- BIOL 348 - Human Anatomy and Physiology
- One course from:
  - BIOL 349 - Human Physiology
  - BIOL 467 - Comparative Vertebrate Physiology
- One of the following:

- ANTH 308 - Hunter-Gatherer Societies in World Prehistory
- ANTH 422 - Nutritional Anthropology
- ANTH 424 - Medical Anthropology
- BIOL 410 - Animal Behavior

Completion requirement:

- ANTH 496 - Portfolio Assembly

Electives:

3-12 credits to make 102-105 total.

One course from:

- BIOL 322 - Genetics Lab
- BIOL 324 - Methods in Molecular Biology
- BIOL 323 - Cell and Molecular Biology
- BIOL 345 - Fundamentals of Microbiology
- BIOL 410 - Animal Behavior
- BIOL 465 - Vertebrate Zoology
- BIOL 467 - Comparative Vertebrate Physiology
- ANTH 308 - Hunter-Gatherer Societies in World Prehistory
- ANTH 422 - Nutritional Anthropology
- ANTH 424 - Medical Anthropology
- ANTH 466 - Reproductive Ecology
- Other electives under advisement

## **Biology/Mathematics, BS**

Combined major offered by the Department of Biology, College of Sciences and Technology and the Department of Mathematics, College of Sciences and Technology.

### **110-111 credits**

#### **Introduction/What is the Study of Biology?**

Biology is the study of living things, an academic endeavor with a basic research focus on seeking answers to questions rather than on applying biological knowledge to solve problems. As scientists, biologists have two prime motivations: (1) intellectual curiosity about biological systems, and (2) the philosophy that creating and disseminating reliable knowledge has intrinsic worth. Thus, we intend for our intensive academic program to stimulate our students' curiosity and appetite for life-long learning about biology.

The biology curriculum provides an effective combination of knowledge in areas that students can apply to many careers. The supporting courses for the Biology major in math, physics, and chemistry, along with the biology core curriculum at the 200-level and 300-level, plus one 400-level course in evolution, fulfill the goals of a liberal arts education. In 400-level courses students not only pursue interests more specifically, but begin to integrate and apply knowledge, and develop the skills and abilities to pursue careers of their choosing.

"Mathematics reveals hidden patterns that help us understand the world around us. Now much more than arithmetic and geometry, mathematics today is a diverse discipline that deals with data, measurements, and observations from science; with inference, deduction, and proof; and with mathematical models of natural phenomena, of human behavior, and of social systems.

As a practical matter, Mathematics is a science of pattern and order. Its domain is not molecules or cells, but numbers, chance, form, algorithms, and change. As a science of abstract objects, Mathematics relies on logic rather than on observation as its standard of truth, yet employs observation, simulation, and even experimentation as means of discovering truth." -From Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences.



# BIOLOGY

## Why Consider a Biology/Mathematics Major?

Do you want to know all about the life that you see, hear, touch, taste and smell and how this affects us? Do you want to work outside in the field or in a laboratory? Are you enthusiastic, intelligent, open-minded, and precise? Are you willing to work hard and challenge yourself intellectually? Consider a biology/mathematics major!

### Contact Information

#### Biology Department Chair

Joann Otto  
Biology 315  
360-650-4044  
Joann.Otto@wwu.edu

#### Mathematics Department Chair

Tjalling Ypma  
Bond Hall 202A  
360-650-3785  
Tjalling.Ypma@wwu.edu

#### Biology Major Information Program Coordinator

Maren Brinson  
Biology 315  
360-650-6165  
Maren.Brinson@wwu.edu

#### Mathematics Department

Bond Hall 202  
360-650-3785  
Math.Department@wwu.edu

### Sample Careers

Populations Researcher | Biostatistcian | Research Analyst | Bioinformatics Scientist

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

The Biology Department has a two-step process for admission into our degree programs. Phase I students are students who have declared their intent to major in biology and are in the process of completing the introductory biology (BIOL 204, 205, 206) and general chemistry (CHEM 121, 122, 123) series. Admission to Phase II is based on academic performance in the introductory courses. Students must achieve an average grade of 2.9 or higher in their introductory biology and general chemistry courses before they can advance to Phase II and begin taking upper-division coursework.

Biology Phase II status required for admission into 300- and 400-level biology courses.

## Grade Requirements

A grade of C- or better is required for a student's major courses.

### Requirements

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- BIOL 321 - Genetics
- BIOL 323 - Cell and Molecular Biology
- BIOL 325 - Ecology
- BIOL 432 - Evolutionary Biology
- CHEM 251 - Elementary Organic Chemistry
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry II
- OR
- MATH 134 - Calculus I Honors

- MATH 135 - Calculus II Honors  
OR
- MATH 138 - Accelerated Calculus
  - Choose either:
  - MATH 204 - Elementary Linear Algebra  
MATH 331 - Ordinary Differential Equations  
OR
  - MATH 203 - Linear Algebra and Differential Equations I
  - MATH 303 - Linear Algebra and Differential Equations II
  - MATH 224 - Multivariable Calculus and Geometry I
  - MATH 331 - Ordinary Differential Equations
  - MATH 341 - Probability and Statistical Inference
  - MATH 342 - Statistical Methods
  - MATH 415 - Mathematical Biology  
**NOTE:** MATH 432 can substitute for MATH 415
  - PHYS 161 - Physics with Calculus I
  - PHYS 162 - Physics with Calculus II
  - PHYS 163 - Physics with Calculus III
  - One course from:
    - CSCI 139 - Programming Fundamentals in Python
    - CSCI 140 - Programming Fundamentals in C++
    - CSCI 141 - Computer Programming I
    - MATH 307 - Mathematical Computing
  - 8 credits of approved upper-division electives from biology, math, or math/computer science
  - Choose one of the following series:
    - CHEM 121 - General Chemistry I
    - CHEM 122 - General Chemistry II
    - CHEM 123 - General Chemistry III
    - or
    - CHEM 125 - General Chemistry I, Honors
    - CHEM 126 - General Chemistry II, Honors
    - CHEM 225 - General Chemistry III, Honors

## Master of Science

### Biology, Marine and Estuarine Science, Thesis, MS

*College of Sciences and Technology*

#### Graduate Faculty

**Acevedo-Gutierrez, Alejandro**, PhD, marine vertebrate ecology.  
**Anderson, Roger A.**, PhD, vertebrate behavioral and physiological ecology.  
**Donovan, Deborah A.**, PhD, marine invertebrate physiological ecology.  
**Kodner, Robin**, PhD, quantitative marine biology  
**Miner, Benjamin G.**, PhD, marine invertebrate ecology and evolution.  
**Moyer, Craig L.**, PhD, evolutionary molecular microbiology.  
**Otto, Joann J.**, PhD, cell biology.

# BIOLOGY

Program Advisor: Dr. Deborah Donovan, Biology Building 310

Curriculum Coordinators: Dr. Brian Bingham, Huxley College of the Environment; Dr. Stephen Sulkin, Department of Biology

For a complete list of participating faculty and their research interests, and for additional information, visit the MESP website.

The Marine and Estuarine Science option is a joint offering of the Department of Biology, Huxley College, and Shannon Point Marine Center. Students graduating from the program will have an understanding of coastal marine and estuarine environments, biota and topical management issues, and fundamental biological and chemical oceanographic processes.

## **Goals**

To offer a first-class research experience for our students that will provide them with the background and skills to enter a variety of professional careers in biology. We aim to provide a stimulating intellectual environment with rigorous scholarship that facilitates multiple opportunities for graduate students.

## **Prerequisites**

A bachelor's degree and departmental permission. Deficiencies in undergraduate courses or those subsequently revealed to the Biology Graduate Committee or to the student's program committee must be corrected prior to advancement to candidacy. Applicants are directed to the current requirements of the basic BS degree in biology for a summary of expected preparation for graduate work. All students should have completed upper-division courses in genetics, cell biology, ecology and biometrics, and supporting introductory course work in organismal biology.

## **Application Information**

**Admit Quarter:** Fall quarter only; spring quarter by petition.

**Deadline:** The deadline for priority consideration is February 1 for fall quarter. See Graduate School deadlines for other quarters.

**TA Deadline:** The deadline for applying for a teaching assistantship is February 1.

**Required Test:** Graduate Record Exam, General Test or REVISED General Test beginning August 2011.

**Supporting Materials:** Application with \$60 fee; three recent letters of reference; one set of official transcripts from every college/university attended; written description of background and research interests, including an indication of three potential faculty advisors.

## **Program Requirements**

At least 45 total combined credits from the following areas:

### Requirements in Specialization

- BIOL 501 - Fundamentals of Biological Research (3 credits)
- BIOL 505 - Current Research in Marine Science (1-2 credits)
- BIOL 525 - Research Mentorship (4 credits)
- BIOL 598 - Essentials of Biology Graduate Studies (2 credits)
- BIOL 690 - Thesis Research (12-36 credits)

### Electives

- Courses selected under advisement from 400- and 500-level courses in biology and supporting disciplines. No more than 10 credits may come from 400-level courses. All elective courses must be approved by the student's program committee (14-23).

### Thesis and Examination

Degree candidates will submit a thesis based on independent and original research on a problem approved by the student's thesis committee. A final oral exam will be conducted by the advisory committee. Degree candidates will present a department seminar based on the results of the thesis research.

## Biology, Thesis, MS

*College of Sciences and Technology*

### Graduate Faculty

**Acevedo-Gutierrez, Alejandro**, PhD, marine vertebrate ecology.  
**Anderson, Roger A.**, PhD, vertebrate behavioral and physiological ecology.  
**Brodhagen, Marion**, PhD, chemical ecology, plant-microbe interactions.  
**DeChaine, Eric**, PhD, evolution and ecology of alpine and arctic flora.  
**Donovan, Deborah A.**, PhD, marine invertebrate physiological ecology.  
**Hooper, David U.**, PhD, ecosystem ecology and plant community ecology.  
**Leaf, David S.**, PhD, cell and developmental biology.  
**Kodner, Robin**, PhD, quantitative marine biology.  
**Miner, Benjamin G.**, PhD, marine invertebrate ecology and evolution.  
**Moyer, Craig L.**, PhD, evolutionary molecular microbiology.  
**Otto, Joann J.**, PhD, cell biology.  
**Peterson, Merrill A.**, PhD, insect ecology and evolutionary biology.  
**Pillitteri, Lynn**, PhD, eukaryotic cell and molecular biology.  
**Schulze, Sandra**, PhD, chromatin structure and nuclear organization.  
**Schwarz, Dietmar**, PhD, ecological genetics.  
**Serrano-Moreno, José**, PhD, cellular physiology.  
**Singh-Cundy, Anu**, PhD, plant developmental biology.  
**Sulkin, Stephen D.**, PhD, invertebrate larval biology.  
**Trent, Carol**, PhD, molecular and developmental genetics.  
**Young, Jeff C.**, PhD, plant genetics.

Program Advisor: Dr. Deborah Donovan, Biology Building 310

### Goals

To offer a first-class research experience for our students that will provide them with the background and skills to enter a variety of professional careers in biology. We aim to provide a stimulating intellectual environment with rigorous scholarship that facilitates multiple opportunities for graduate students.

### Prerequisites

A bachelor's degree and departmental permission. Deficiencies in undergraduate courses or those subsequently revealed to the Biology Graduate Committee or to the student's program committee must be corrected prior to advancement to candidacy. Applicants are directed to the current requirements of the basic BS degree in biology for a summary of expected preparation for graduate work. All students should have completed upper-division courses in genetics, cell biology, ecology and biometrics, and supporting introductory course work in organismal biology.

### Application Information

**Admit Quarters:** Fall quarter only; spring quarter by petition.

**Deadline:** The deadline for priority consideration is February 1 for fall quarter. See Graduate School deadlines for other quarters.

**TA Deadline:** The deadline for applying for a teaching assistantship is February 1.

# BIOLOGY

**Required Test:** Graduate Record Exam, General Test or REVISED General Test beginning August 2011.

**Supporting Materials:** Application with \$60 fee; three recent letters of reference; one set of official transcripts from every college/university attended; written description of background and research interests, including an indication of potential faculty advisors.

## Program Requirements

At least 45 total combined credits from the following areas:

### Requirements in Specialization

- BIOL 501 - Fundamentals of Biological Research (3 credits)
- BIOL 525 - Research Mentorship (4 credits)
- BIOL 598 - Essentials of Biology Graduate Studies (2 credits)
- BIOL 690 - Thesis Research (12-36 credits)

### Electives

- Courses selected under advisement from 400- and 500-level courses in biology and supporting disciplines. No more than 10 credits may come from 400-level courses. All elective courses must be approved by the student's program committee (15-24).

### Thesis and Examination

Degree candidates will submit a thesis based on independent and original research on a problem approved by the student's thesis committee. A final oral exam will be conducted by the advisory committee. Degree candidates will present a seminar based on the results of the thesis research.

## Minor

### Biology Minor

Department of Biology, College of Sciences and Technology

### 43 Credits

#### Introduction/What is the Study of Biology?

The course requirements for a biology minor are different from those stated here when coupled with certain academic majors. Students must consult their major department or the biology department for specific course requirements which will fulfill a biology minor accompanying their declared major.

At least 20 credits of biology must be taken at Western.

#### Why Consider a Biology Minor?

##### Contact Information

##### Department Chair

Joann Otto

Biology 315

360-650-4044

Joann.Otto@wwu.edu

##### Sample Careers

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

The Biology Department has a two-step process for admission into our degree programs. Phase I students are students who have declared their intent to major or minor in biology and are in the process of completing the introductory biology and general chemistry series. Admission to Phase II is based on academic performance in the introductory courses. Students must achieve an average grade of 2.9 or higher in their introductory biology and general chemistry courses before they can advance to Phase II and begin taking upper-division coursework.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
  - Choose one of the following series:
    - CHEM 121 - General Chemistry I
    - CHEM 122 - General Chemistry II
    - CHEM 123 - General Chemistry III
    - or
    - CHEM 125 - General Chemistry I, Honors
    - CHEM 126 - General Chemistry II, Honors
    - CHEM 225 - General Chemistry III, Honors
  - 15 credits of upper-division biology electives

**Biology Courses****BIOL 101 - Introduction to Biology**

Major ideas and processes of modern biological science at molecular, cellular, organismic and community levels; stressing qualitative and quantitative dimensions of the discipline in lecture, laboratory, field and discussion settings. Lab included. Intended for non-science majors.

Credits: 4

GUR Attributes: LSCI

**BIOL 102 - Biological Diversity: Evolution and Systems**

A consideration of biodiversity; adaptations and life cycles of plants and animals; organismal biology; science as a way of knowing; the relevance of the above-mentioned topics for the educated citizen.

Lecture, discussion, field and lab included.

**Prerequisites & Notes:** BIOL 101

Credits: 4

GUR Attributes: LSCI

**BIOL 110 - Marine Habitat Diversity**

Exploration of the biological and physical properties of the diverse marine habitats characteristic of Salish Sea environments, including eelgrass and other soft-sediment sites, the rocky intertidal, the plankton and deep-sea sites. Habitats will be studied with respect to their physical properties, the impacts on them of factors such as tides and exposure, typical biota, and oceanographic processes that characterize them. Instruction will include lectures, laboratory

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exercises, field trips and group projects.

**Prerequisites & Notes:** Admission to the Marine Science Scholars Program.

Credits: 4

## **BIOL 111 - Current Topics in Marine Science I**

Current topics in marine science assigned by instructor each quarter. Typical topics may include harmful algal blooms, invasive species, ocean acidification, climate change, and fisheries or mariculture. Repeatable with different topics up to a maximum of 2 credits, including original course.

**Prerequisites & Notes:** Admission to the Marine Science Scholars Program.

Credits: 1

## **BIOL 112 - Current Topics in Marine Science II**

Current topics in marine science assigned by instructor each quarter. Typical topics may include harmful algal blooms, invasive species, ocean acidification, climate change, and fisheries or mariculture. Repeatable with different topics up to a maximum of 3 credits, including original course.

**Prerequisites & Notes:** Admission to the Marine Science Scholars Program.

Credits: 1

## **BIOL 140 - The Ecology and Economics of Salmon Recovery**

Focus on the 4 causes of salmon decline (Habitat, Hydropower, Harvest, and Hatcheries) to investigate the interactions between ecology and economics through lectures, reading and independent projects. Also offered as ECON 140.

Credits: 4

GUR Attributes: SCI

## **BIOL 204 - Introduction to Evolution, Ecology and Biodiversity**

Introduction to evolutionary and ecological processes involved in the generation of our planet's biodiversity, including review of patterns and processes that influence the origin, evolution, distribution, and abundance of living things.

Includes lab.

**Prerequisites & Notes:** CHEM 121 or CHEM 125 or concurrent.

Credits: 4

GUR Attributes: LSCI

## **BIOL 205 - Introduction to Cellular and Molecular Biology**

Structure and function of biomolecules and cells, membrane structure and function, photosynthesis and respiration, molecular origin of life, phylogenetic and metabolic diversity of prokaryotes, molecular genetics and genomics. Includes lab.

**Prerequisites & Notes:** BIOL 204; CHEM 121 or CHEM 125; CHEM 122 or CHEM 126 or concurrent.

Credits: 5

GUR Attributes: LSCI

## **BIOL 206 - Introduction to Organismal Biology**

Study of the many ways that eukaryotic organisms perform basic functions and cope with varying environmental conditions. Phylogenetic organismal diversity and organ system structural and functional diversity will be studied in lecture and laboratory.

**Prerequisites & Notes:** BIOL 205; CHEM 122 or CHEM 126; CHEM 123 or CHEM 225 or concurrent.

Credits: 5

GUR Attributes: LSCI

## **BIOL 245 - Microbiology for Health Sciences**

General microbiology with an emphasis on health related issues. Students will learn aseptic technique in lab and the characteristics of microbes that affect human health. Credits earned in this course cannot be applied towards a Biology degree.

**Prerequisites & Notes:** BIOL 101, or BIOL 204 and BIOL 205

Credits: 5

## **BIOL 321 - Genetics**

Survey of classical genetics, molecular genetics and genomics in prokaryotic and eukaryotic organisms.

**Prerequisites & Notes:** BIOL 204, BIOL 205, BIOL 206  
Credits: 4

### **BIOL 322 - Genetics Lab**

Uses prokaryotic and eukaryotic model organisms to explore the fundamentals of genetics and the use of genetics as a tool for basic research. Includes lecture.

**Prerequisites & Notes:** BIOL 321 or concurrent.  
Credits: 4

### **BIOL 323 - Cell and Molecular Biology**

Cell structure and function. Topics include: protein structure and function, gene regulation, cell cycle, signal transduction, and organelle assembly and function.

**Prerequisites & Notes:** CHEM 351 and CHEM 352 (may be taken concurrently); OR CHEM 251.  
Credits: 4

### **BIOL 324 - Methods in Molecular Biology**

An introduction to widely used molecular biology techniques and laboratory skills.

**Prerequisites & Notes:** BIOL 321 or BIOL 323  
Credits: 3

### **BIOL 325 - Ecology**

Organismal-environmental relationships in marine, fresh water and terrestrial habitats. Functions and development of ecosystems.

**Prerequisites & Notes:** BIOL 204, BIOL 205, BIOL 206  
Credits: 3

### **BIOL 326 - Ecology Laboratory**

Introduction to ecological research, culminating in student-designed research projects. Written and oral presentation of projects.

**Prerequisites & Notes:** BIOL 325 or concurrent; or ESCI 325.  
Credits: 3

### **BIOL 340 - Biometrics**

The design of biological experiments and appropriate statistical analysis of experimental

data.

**Prerequisites & Notes:** BIOL 204, BIOL 205, BIOL 206; instructor permission.  
Credits: 5

### **BIOL 345 - Fundamentals of Microbiology**

Cell structure, metabolism, evolution and ecology of prokaryotes.

**Prerequisites & Notes:** BIOL 205, CHEM 251 or CHEM 351  
Credits: 3

### **BIOL 346 - Microbiology Lab**

Techniques of general microbiology, including isolation, culture, enumeration and identification of prokaryotes.

**Prerequisites & Notes:** BIOL 205; CHEM 351 or CHEM 251; BIOL 345 or concurrent.  
Credits: 2

### **BIOL 348 - Human Anatomy and Physiology**

Macroscopic and histological examination of human anatomical systems, and study of general neuromuscular and cardiopulmonary functions. Includes lab. Credits earned in this course cannot be applied towards a BA or BS in Biology, except for the BA and BS in Biology/Anthropology.

**Prerequisites & Notes:** BIOL 101 or BIOL 205  
Credits: 5

### **BIOL 349 - Human Physiology**

A comprehensive introduction to the study of integrated functions of cells, organs and organ systems in humans.

**Prerequisites & Notes:** BIOL 348 or BIOL 206; CHEM 121 or CHEM 125  
Credits: 5

### **BIOL 395 - Biology Research Participation**

Participation in biology research under the tutelage of a biology professor. The experience may include assisting in the maintenance of experimental setup, data collection, data entry, literature searches, and developing graphics.

**Prerequisites & Notes:** Permission of instructor.



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Credits: 1-4

Grade Mode: S/U

## **BIOL 403 - Physiological Ecology of Animals**

Physiological and biochemical adaptations of animals to environmental factors. Marine environments are emphasized, but adaptations to fresh water and terrestrial conditions also are considered. Laboratories introduce research techniques which are then applied in student-designed independent research projects.

**Prerequisites & Notes:** BIOL 206; and BIOL 325 or ESCI 325; or instructor permission  
Credits: 5

## **BIOL 404 - Plant Ecology**

Ecology of plant communities, interpretation of vegetation patterns, and plant ecophysiology.

**Prerequisites & Notes:** BIOL 206, BIOL 325, BIOL 326  
Credits: 5

## **BIOL 405 - Microbial Ecology**

Study of microbial communities in aquatic and terrestrial environments, with emphasis on the functional role of microbes in energy flow, nutrient cycling and element transformation. Overview of microbial interactions with eukaryotic hosts. Discussion of structure, genetics, and community on microbial communities. Offered in alternate years.

**Prerequisites & Notes:** BIOL 325 and BIOL 345 or instructor permission.  
Credits: 4

## **BIOL 407 - Marine Ecology**

The structure and function of marine ecosystems with an emphasis on processes in shallow-water and benthic habitats. Investigative field and laboratory studies of local marine and estuarine systems.

**Prerequisites & Notes:** BIOL 325; BIOL 326; BIOL 340 or concurrent OR ESCI 340 or concurrent; ESCI 321 or concurrent or instructor permission.  
Credits: 5

## **BIOL 408 - Ecological Methods**

Students will learn instrumentation and methodology for field research, and practice it in a field setting. Specifically, students will perform comparative investigations of three meso-habitats by measuring ecologically relevant parameters, such as spatiotemporal variation in microclimate or vegetation, and terrestrial invertebrate abundance and diversity.

**Prerequisites & Notes:** BIOL 325 or ESCI 325; Co-requisite Biol 409  
Credits: 6

## **BIOL 409 - Research Reptile Ecology**

Field research will focus on developing knowledge and understanding of the population, behavioral, and physiological ecology of reptiles. Observational-comparative and experimental methods will be learned. Data collected in BIOL 408 will be analyzed, interpreted, and prepared for publication.

**Prerequisites & Notes:** BIOL 325 or ESCI 325. Co-requisite BIOL 408.  
Credits: 6

## **BIOL 410 - Animal Behavior**

Investigation of the component processes and adaptive functions of animal behavior in an ecological and evolutionary context, and an introduction to the questions asked, hypotheses proposed and methods used in the study of animal behavior. Offered in alternate years.

**Prerequisites & Notes:** BIOL 206; BIOL 325 or ESCI 325; or instructor permission.  
Credits: 4

## **BIOL 416 - Ecosystem Ecology and Global Change**

Investigation of the factors controlling whole ecosystem processes such as productivity, decomposition, and nutrient cycling. Application of these concepts to current issues in global change, including the carbon cycle and global warming, land use change, nitrogen-loading, and biodiversity and ecosystem function. Lectures and textbook reading are integrated with discussion of papers from the primary literature.

**Prerequisites & Notes:** BIOL 325 or ESCI 325;  
BIOL 326 recommended.  
Credits: 4

#### **BIOL 424 - Applied Molecular Ecology**

This class provides a practical introduction to how genetic methods can be used to address problems in ecology and evolution. As an applied course this class will stress general concepts of population genetics, phylogenetics, and comparative genomics via the use of quantitative tools in practical exercises while putting less emphasis on the theoretical details underlying these tools.

**Prerequisites & Notes:** BIOL 321; BIOL 325 or ESCI 325; or permission of instructor.  
Credits: 3

#### **BIOL 432 - Evolutionary Biology**

Principles, patterns, processes and mechanisms of evolution.

**Prerequisites & Notes:** BIOL 321  
Credits: 4

#### **BIOL 433 - Quaternary Biogeography**

This course examines the impact that climatic changes during the past 2 million years had on the distribution of biological diversity, with an emphasis on the flora and fauna of the Pacific Northwest.

**Prerequisites & Notes:** BIOL 325 or ESCI 325.  
Credits: 3

#### **BIOL 436 - Molecular Phylogeny and Microbial Diversity**

Explore the ramifications of the recent revolutionary discoveries in microbial diversity, the reconstruction of evolutionary discoveries in history at both molecular and organismal levels and the implications of the origins of life on prokaryotic evolution. Emphasis on applications of phylogenetic theories and methods to the understanding and 'modeling' of the evolutionary progression of life. Multiple phylogenetic reconstruction algorithms will be closely examined and scrutinized. Offered alternate years.

**Prerequisites & Notes:** BIOL 345, BIOL 346

Credits: 5

#### **BIOL 444 - Seminar Series Participation**

The Biology Department Seminar Series provides opportunities for undergraduate students to learn about the latest developments in key fields of biological research. Students will be required to attend seminars and provide a written synopsis of each presentation.

**Prerequisites & Notes:** BIOL 204, BIOL 205, BIOL 206  
Credits: 1  
Grade Mode: S/U

#### **BIOL 450 - Plant Anatomy**

Structure of the plant body, from cellular to whole plant level, including developmental and ecological aspects. Offered alternate years.

**Prerequisites & Notes:** BIOL 206  
Credits: 5

#### **BIOL 451 - Developmental Biology of Plants**

An examination of the molecular basis of plant development and the applied uses of recent discoveries on crop improvement strategies. Emphasis on discussion of primary literature. Offered alternate years.

**Prerequisites & Notes:** BIOL 323  
Credits: 3

#### **BIOL 452 - Systematic Botany**

Taxonomy of higher plants with emphasis on the characteristics and phylogeny of flowering plant families; collection and identification of local species.

**Prerequisites & Notes:** BIOL 206  
Credits: 5

#### **BIOL 456 - Algae**

Physiology and ecology of macroalgae and phytoplankton, including identification, collection and culture of major algal groups. Laboratory focus on research techniques which are then applied in student independent projects.

**Prerequisites & Notes:** BIOL 206; ESCI 321 or concurrent or instructor permission.

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Credits: 5

## **BIOL 460 - Invertebrate Zoology**

Evolutionary relationships of invertebrate animals, including anatomy, physiology, classification, development and ecology.

**Prerequisites & Notes:** BIOL 204, BIOL 205, BIOL 206  
Credits: 5

## **BIOL 462 - Entomology**

The biology of insects, emphasizing their ecology and evolution, as well as comparative anatomy, physiology, and development. Laboratory exercises will focus on community studies and insect identification.

**Prerequisites & Notes:** BIOL 206  
Credits: 5

## **BIOL 464 - Biology of Marine Mammals**

Examination of the evolution, physiology, ecology and conservation of marine mammals through critical thinking and discussion of the primary literature. Offered in alternate years. Writing-proficiency course.

**Prerequisites & Notes:** BIOL 204, BIOL 205, BIOL 206. Recommended: ESCI 321.  
Credits: 4

## **BIOL 465 - Vertebrate Zoology**

Investigations of vertebrate phylogenies; analyses of the biogeographic and ecological patterns of spatiotemporal distribution of many vertebrate taxa; examinations of the principal adaptive features that uniquely define each major vertebrate taxon. Offered alternate years.

**Prerequisites & Notes:** BIOL 206; and BIOL 325 or ESCI 325; or instructor permission  
Credits: 5

## **BIOL 467 - Comparative Vertebrate Physiology**

Examination of the physiological functions of organ systems in each of the major vertebrate classes, with systems of taxa compared in evolutionary and ecological contexts.

**Prerequisites & Notes:** BIOL 206  
Credits: 3

## **BIOL 468 - Comparative Vertebrate Physiology Laboratory**

Design and implement laboratory research on some aspect of whole-animal performance physiology.

**Prerequisites & Notes:** BIOL 206; BIOL 467 or concurrent.  
Credits: 3

## **BIOL 470 - Functional Genomics**

Examines the development and application of genome-based experimental approaches in biology.

**Prerequisites & Notes:** BIOL 321, BIOL 323  
Credits: 3

## **BIOL 471 - Biochemistry I**

A consideration of the structure and function of biological macromolecules; intermediary metabolism; membrane structure and function; bioenergetics. Also offered as CHEM 471.

**Prerequisites & Notes:** BIOL 205; CHEM 123 or CHEM 225; CHEM 353 or concurrent.  
Credits: 4

## **BIOL 472 - Biochemistry II**

A consideration of the structure and function of biological macromolecules; intermediary metabolism; membrane structure and function; bioenergetics. Also offered as CHEM 472.

**Prerequisites & Notes:** BIOL 471  
Credits: 4

## **BIOL 473 - Molecular Biology**

An examination of the structure, replication and expression of genetic information. Also offered as CHEM 473.

**Prerequisites & Notes:** BIOL 321 or BIOL 323; BIOL 471 or CHEM 471.  
Credits: 3

## **BIOL 474 - Biochemistry Laboratory**

Modern methods of isolation and characterization of biological macromolecules, especially enzymes and other proteins. Also offered as CHEM 474.

**Prerequisites & Notes:** CHEM 354 or BIOL 324; BIOL 471 (or concurrent) OR CHEM 471 (or concurrent).  
Credits: 3

### **BIOL 476 - The Structural Basis of Membrane Transport Proteins**

This course will examine the general structural basis of membrane transport proteins; studying their mechanistic information, examining the actual body plans and structure of these proteins and evaluating the structure-function relationship that permits them to perform their task. The overall goal of this course is to acquire a unifying view of membrane transport mechanisms. Offered in alternate years.

**Prerequisites & Notes:** BIOL 323; BIOL 471 or CHEM 471 recommended.  
Credits: 3

### **BIOL 479 - Plant Physiology**

Basic principles of physiology including cell structure and function, plant-soil-water relationships, absorption and translocation of materials, transpiration, photosynthesis, respiration, mineral nutrition, growth and development, hormonal regulation.

**Prerequisites & Notes:** BIOL 206; CHEM 351 and CHEM 352, or CHEM 251  
Credits: 5

### **BIOL 482 - Developmental Biology of Animals**

An examination of the molecular, cellular and genetic aspects of developmental biology in invertebrate and vertebrate model systems: fruitflies, nematodes, sea urchins, frogs and mammals.

**Prerequisites & Notes:** BIOL 321 and BIOL 323  
Credits: 4

### **BIOL 484 - Cell Biology Laboratory**

Laboratory investigations of cellular and developmental processes. Tissue culture methods and microscopy techniques, including

immunofluorescence. Lectures will focus on optics and image processing.

**Prerequisites & Notes:** BIOL 323  
Credits: 5

### **BIOL 486 - Topics in Molecular Mechanisms of Neurodevelopment**

Molecular analysis of developmental processes controlling the formation of functional neural circuits. Emphasis placed on critical evaluation and discussion of primary literature.

**Prerequisites & Notes:** BIOL 321 and BIOL 323.  
Credits: 3

### **BIOL 494 - Biology Research**

Individual or collaborative research, including design and implementation of a research project, working under the tutelage of a biology professor. Repeatable to a maximum of 8 cr.

**Prerequisites & Notes:** Phase II in biology and permission of instructor; completion of department course agreement form.  
Credits: 1-5

### **BIOL 495 - Research Communication**

Analysis and written and/or oral presentation of results of individual scientific research. Communication can be in the form of a full scientific paper, a poster, or an oral presentation. Number of credits is dependent on the form of communication. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** BIOL 494; phase II in Biology and permission of instructor.  
Credits: 1-4

### **BIOL 496 - Professional Work Experience in Biology**

Full- or part-time work with a cooperating agency or firm. Written reports required. Repeatable to a maximum of 8 cr. S/U grading.

**Prerequisites & Notes:** Phase II in Biology and permission of instructor.  
Credits: 1-5  
Grade Mode: S/U

# BIOLOGY

## **BIOL 498 - Teaching Practicum**

Classroom experience in biology teaching. Students will assist faculty in the laboratory and lecture settings. Repeatable to a maximum of 4 cr. S/U grading.

**Prerequisites & Notes:** Phase II in Biology and permission of instructor.

Credits: 1-4

Grade Mode: S/U

## **BIOL 501 - Fundamentals of Biological Research**

Introduction to developing and writing research proposals, obtaining funding, and conducting research in the Biological Sciences.

**Prerequisites & Notes:** Graduate status in Biology or permission of instructor.

Credits: 3

## **BIOL 505 - Current Research in Marine Science**

Presentation and discussion of research expertise of University faculty participating in the marine and estuarine science graduate specialization. Repeatable to a maximum of 2 cr. S/U grading.

**Prerequisites & Notes:** Permission of instructor.

Credits: 1

Grade Mode: S/U

## **BIOL 508 - Advanced Topics in Marine Biology**

Analysis and discussion of current literature on selected topics in marine and estuarine biology. Examples of topics include symbiosis, intertidal community dynamics and marine microbiology. Repeatable with different topics.

**Prerequisites & Notes:** 25 credits in biology and permission of instructor.

Credits: 4

## **BIOL 513 - Physiological Ecology of Animals**

Physiological and biochemical adaptations of animals to environmental factors. Emphasizes marine environments, but adaptations to freshwater and terrestrial environments conditions are also considered. Labs introduce research techniques which are applied in student-designed independent research projects.

**Prerequisites & Notes:** BIOL 206, BIOL 325; or introductory courses in zoology and ecology.

Credits: 5

## **BIOL 516 - Advanced Ecosystem Ecology and Global Change**

Investigates the factors controlling whole ecosystem processes. Application of these concepts to current issues in global change, including the carbon cycle and global warming, land-use change, nitrogen load, and biodiversity and ecosystem functioning.

**Prerequisites & Notes:** BIOL 325 or ESCI 325 or equivalent; BIOL 326 recommended

Credits: 4

## **BIOL 524 - Applied Molecular Ecology**

This class provides a practical introduction to how genetic methods can be used to address problems in ecology and evolution. As an applied course this class will stress general concepts of population genetics, phylogenetics, and comparative genomics via the use of qualitative tools in practical exercises while putting less emphasis on the theoretical details underlying these tools.

**Prerequisites & Notes:** Background in genetics and ecology.

Credits: 3

## **BIOL 525 - Research Mentorship**

Part of the core curriculum for all Biology MS students. This course provides an overview of research methods in biology and guidance for developing a research program. Through this seminar-style course, students will discuss research methods and how to trouble shoot research problems across the discipline. Offered Winter and Spring only, required of 1st and 2nd year students in each quarter, for 4 credits total. S/U grading.

**Prerequisites & Notes:** Admission to MS program in biology or interdisciplinary graduate program involving biology.

Credits: 1

Grade Mode: S/U

## **BIOL 533 - Advanced Quaternary Biogeography**

This course examines the impact that climatic changes during the past 2 million years had on the distribution of biological diversity, with an emphasis on the flora and fauna of the Pacific Northwest.

**Prerequisites & Notes:** Background in Ecology.  
Credits: 3

#### **BIOL 551 - Developmental Biol Plants**

An examination of the molecular basis of plant development and the applied uses of recent discoveries on crop improvement strategies. Emphasis on discussion of primary literature. Offered alternate years.

**Prerequisites & Notes:** Background in cellular and molecular biology.  
Credits: 3

#### **BIOL 576 - Structural Basis of Membrane Transport Proteins**

This course will examine the general structural basis of membrane transport proteins; studying their mechanistic information, examining the actual body plans and structure of these proteins and evaluating the structure-function relationship that permits them to perform their task. The overall goal of this course is to acquire a unifying view of membrane transport mechanisms. Offered in alternate years.

**Prerequisites & Notes:** Graduate status. BIOL 323 or equivalent; background in biochemistry recommended.  
Credits: 3

#### **BIOL 586 - Topics in Molecular Mechanisms of Neurodevelopment**

Molecular analysis of developmental processes controlling the formation of functional neural circuits. Emphasis placed on critical evaluation and discussion of primary literature.

**Prerequisites & Notes:** Graduate standing; BIOL 321 and BIOL 323; or background in cell biology and genetics.  
Credits: 3

#### **BIOL 594 - Cell Biology Laboratory**

Laboratory investigations of cellular processes. Tissue culture methods and microscopy techniques, including immunofluorescence. Lectures will focus on optics and image processing.

**Prerequisites & Notes:** Graduate standing and permission of instructor; BIOL 323 or equivalent.  
Credits: 4

#### **BIOL 595 - Developmental Biology**

An examination of the molecular, cellular and genetic aspects of developmental biology in invertebrate and vertebrate model systems: fruitflies, nematodes, sea urchins, frogs and mammals.

**Prerequisites & Notes:** 25 credits in biology and permission of instructor.  
Credits: 5

#### **BIOL 598 - Essentials of Biology Graduate Studies**

An overview of departmental resources, guidelines for navigating the Biology MS in a timely fashion, with workshops for developing skills in teaching and giving presentations in the biological sciences. Fall quarter of the first year only. Required of all first-year Biology MS students. Not repeatable. S/U grading.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 2  
Grade Mode: S/U

#### **BIOL 599 - Seminar in Biology**

Selected problems in biology, with emphasis on current literature. Repeatable.

**Prerequisites & Notes:** 40 credits in biology  
Credits: 2

#### **BIOL 690 - Thesis Research**

Research contributing to a graduate degree program. Graded 'K' until thesis completed. Repeatable up to 36 credits. S/U grading.

**Prerequisites & Notes:** Permission of thesis advisor.  
Credits: 1-12  
Grade Mode: S/U

# Chemistry

## Introduction

[www.chem.wvu.edu/dept](http://www.chem.wvu.edu/dept)

The Department of Chemistry offers undergraduate degree programs in chemistry and biochemistry. American Chemical Society accreditation is available to BS graduates in chemistry. The WWU chemistry and biochemistry program is recognized as one of the finest in the country and is focused on supporting our students and ensuring their success in their chosen careers. The Department of Chemistry — in addition to its core of fundamental studies in physical, inorganic, organic, analytical and biochemistry — has added a variety of elective courses that offer diversity in training, study and research at both the undergraduate and graduate levels. Within the department, faculty members are active in many research areas, including organometallic chemistry, organic synthesis, photochemistry, protein and nucleic acid biochemistry, molecular biology of viruses, electrochemistry, molecular spectroscopy, reaction kinetics, materials, polymers, and environmental chemistry. Detailed explanations of the current research areas of the faculty can be found on the department website (<http://www.chem.wvu.edu>).

Every effort is made to update and modernize course work and teaching methods. The department maintains state-of-the-art instrumentation for both teaching and research activities. Students gain experience in modern analytical methods through hands-on use of the instrumentation. Several faculty members have authored successful textbooks and computer-assisted instructional materials that have found wide usage at major universities. Western's graduates have a long and enviable record of success in PhD programs at major research-oriented universities and in a variety of medical, dental and pharmacy programs.

## Faculty

All of the members of the department hold the PhD degree, and most have had postdoctoral experience before coming to Western. The department supports an active undergraduate research program, and students are encouraged to undertake a research project early in their studies.

There is a high degree of personal contact between faculty and students in the department. Supporting students is a core mission of the department. Faculty and department staff members can assist with academic and career counseling.

**JAMES R. VYVYAN** (1997) Chair and Professor. BS, University of Wisconsin-Eau Claire; PhD, University of Minnesota

**SPENCER J. ANTHONY-CAHILL** (1997) Professor. BA, Whitman College; PhD, University of California-Berkeley.

**JOHN ANTOS** (2012) Assistant Professor. BS, Ohio State University; PhD, University of California

**ROBERT BERGER** (2013) Assistant Professor. A.B. Chemistry, Princeton University; PhD, Cornell University.

**EMILY J. BORDA** (2005) Associate Professor. BS, Gonzaga University; MEd, PhD, University of Washington.

**MARK E. BUSSELL** (1990) Professor. BA, Reed College; PhD, University of California-Berkeley.

**STEVEN R. EMORY** (2001) Associate Professor. BS, California Lutheran University; PhD, Indiana University.

**JOHN D. GILBERTSON** (2008) Assistant Professor. BA, Augustana College; MS, PhD, University of Oregon.

**GEORGE S. KRIZ** (1967) Professor. BS, University of California-Berkeley; PhD, Indiana University.

**JANELLE LEGER** (2009) Associate Professor. BS, University of California at Davis; PhD, University of California at Santa Cruz.

**AMANDA MURPHY** (2010) Assistant Professor, BS and BA, Western Washington University; PhD, University of California-Berkeley.

**GREGORY W. O'NEIL** (2008) Assistant Professor. BS, Boston College; PhD University of Colorado-Boulder.

**DAVID L. PATRICK** (1996) Professor. BS, University of California-Davis; PhD, University of Utah.

**GERRY A. PRODY** (1984) Associate Professor. BS, PhD, University of California-Davis.

**DAVID RIDER** (2010) Assistant Professor. BS, Simon Fraser University, PhD, University of Toronto.

**SERGE SMIRNOV** (2008) Assistant Professor. BS, MS, Moscow Institute of Physics & Technology; PhD, State

University of New York at Stony Brook.

**P. CLINT SPIEGEL** (2007) Associate Professor. BS, Oregon State University; PhD, University of Washington.

### **Departmental Honors**

A chemistry department major who wishes to graduate with honors in chemistry must complete a one-year program of research, culminating in CHEM 498. The student must also maintain a 3.50 cumulative grade point average, submit a senior thesis and present a public seminar covering the research topic. Criteria for candidacy for departmental honors are 1) a minimum grade point average of 3.50 at the conclusion of the penultimate year and 2) acceptance for admission to the program by the chemistry department. Students who are in the University Honors Program must also satisfy these departmental requirements.

## **Other Departmental Information**

### *Programs and Career Opportunities*

The programs of study offered by the chemistry department are diverse and challenging, and provide the following benefits to the student:

- A wide variety of accredited programs, designed to meet diverse career goals
- A faculty committed to excellence in undergraduate education and research
- Close student-faculty contact and relatively small classes
- Direct access to modern laboratory equipment and instrumentation
- Opportunity for research work under the direction of a faculty advisor

The chemistry department offers three basic degree programs: Bachelor of Science, Bachelor of Arts and Bachelor of Arts in Education. All three programs have a common core of study:

- One year of general chemistry and one year of college-level calculus
- One year of organic chemistry, one year of college physics and one quarter of analytical chemistry
- One year of physical chemistry

This provides the foundation for elective courses in the student's area of interest. Through choice of degree programs and electives, the student can prepare for careers in industry or government, teaching at the secondary level or further study at the graduate level.

Students planning to major in chemistry or biochemistry or to begin university transfer programs involving chemistry courses are advised to consult the department during the first year to arrange for the proper sequence of courses.

Students planning to transfer to Western after completing two years of college study elsewhere should complete as many of the following program requirements as possible prior to transfer in order to avoid delays in degree work completion:

- One year of general chemistry
- One year of college-level calculus
- One year of organic chemistry
- One year of college-level physics
- One quarter or one semester of analytical chemistry

**Bachelor of Science.** The department offers BS programs in chemistry and biochemistry. These are specifically designed for students interested in graduate study or careers in industry and government as laboratory scientists.

**Bachelor of Arts.** This program provides less intensive training in chemistry but, when combined with a minor in a related area, prepares students for a variety of career opportunities in fields such as:

- Chemical Sales and Marketing
- Computer Sciences
- Technical Writing (Journalism)
- Environmental Sciences
- Secondary School Teaching



# CHEMISTRY

**Bachelor of Arts in Education.** This program provides several program emphases (chemistry-biology, chemistry-mathematics, and chemistry-physics). Although requirements within these options differ in detail, the three programs are similar enough that the prospective teacher need not choose among them until the sophomore or junior year. Successful graduates are qualified to teach in their areas of concentration at the middle school or high school level. Prospective teachers with qualifications in more than one area will have a distinct advantage in seeking such positions. Detailed descriptions of each of these degree programs and course descriptions are given below.

## Bachelor of Arts

### Chemistry, BA

Department of Chemistry, College of Sciences and Technology

#### 90 credits

#### Introduction/What is the Study of Chemistry?

The Department of Chemistry, in addition to its core of fundamental studies in Physical, Inorganic, Organic, Analytical and Biochemistry, has added a variety of elective courses that offer diversity in training, study and research at the undergraduate level. Within the Department, faculty members are active in many research areas including Organometallic Chemistry, Organic Synthesis, Photochemistry, Protein and Nucleic Acid Biochemistry, Molecular Biology of Viruses, Electrochemistry, Molecular Spectroscopy, Reaction Kinetics, Atmospheric and Environmental Chemistry, Surface Chemistry and Catalysis, and new areas of computer applications.

#### Why Consider a Chemistry Major?

The programs of study within the Chemistry major provide many benefits to students. There are a wide variety of accredited programs that are designed to meet diverse career goals. There is close student-faculty contact and relatively small classes. The students have direct access to modern laboratory equipment and instrumentation, and there are opportunities for research work under the direction of a faculty advisor.

#### Contact Information

##### Chemistry Department Chair

James R. Vyvyan  
Chemistry Building 270A  
360-650-2883  
James.Vyvyan@wwu.edu

##### Department Office

Chemistry Building 270  
360-650-3070  
chemdept@chem.wwu.edu

#### Sample Careers

Chemical/Pharmaceutical Sales | Physician | Crime Lab Analyst | High School Teacher | Industrial Chemist | Technical Writing | Forensic Scientist | Quality Assurance Specialist | Research Scientist | Occupational Safety Specialist | Science Lab Technician | Biotechnology Scientist | College Professor | Environmental Scientist/Consultant

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Admission to the Bachelor of Arts major in chemistry is selective and based upon preparation and prior academic performance. Application may be made through the chemistry department, Chemistry Building 270. Admission to the BA-Chemistry major will be in two phases. Students will be designated Phase I majors until they have completed CHEM 121, 122, 123, 351 and 352. Students will be admitted to Phase II based on their

performance in Phase I. Students with a grade point average of 2.5 or higher in the Phase I courses will be given preferential admission to Phase II. Students with a grade point average below 2.5 will be considered on a case by case basis for remaining spaces in the major. See the department's website for more details. Students planning on careers as high school teachers must take SCED 370, 481 and 491 to earn an endorsement in chemistry, plus the secondary education program in addition to the Bachelor of Arts degree. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements. Because certification to teach high school now requires more than four years, advisement prior to or at the beginning of the third year is absolutely necessary to avoid lengthening the program. Students also are strongly advised to complete requirements for a broad area science endorsement by taking BIOL 204, 205, 206 and Geol 211, 212 and ASTR 103 or 315.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or above.

### Requirements

- CHEM 351 - Organic Chemistry
- CHEM 352 - Organic Chemistry
- CHEM 353 - Organic Chemistry
- CHEM 354 - Organic Chemistry Laboratory I
- CHEM 355 - Organic Chemistry Laboratory II
- CHEM 434 - Instrumental Analysis
- CHEM 436 - Instrumental Analysis Lab
- CHEM 441 - Advanced Inorganic Chemistry
- CHEM 461 - Physical Chemistry
- CHEM 462 - Physical Chemistry
- CHEM 463 - Physical Chemistry
- MATH 224 - Multivariable Calculus and Geometry I
- Choose either:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - CHEM 333 - Analytical Chemistry
- or
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- Choose either:
  - CHEM 375 - Elements of Biochemistry
- or
  - CHEM 471 - Biochemistry I
  - CHEM 472 - Biochemistry II
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry II
- or

## CHEMISTRY

- MATH 134 - Calculus I Honors
  - MATH 135 - Calculus II Honors
- or
- MATH 138 - Accelerated Calculus
- One year of college physics (recommended sequence is Phys 161, 162, 163)

## Bachelor of Arts in Education

### Chemistry/Biology - Secondary, BAE

Combined major offered by the Department of Biology, College of Sciences and Technology and the Department of Chemistry, College of Sciences and Technology

#### 104-109 credits

#### Introduction/What is the Study of Chemistry/Biology-Secondary?

The Department of Chemistry, in addition to its core of fundamental studies in Physical, Inorganic, Organic, Analytical and Biochemistry, has added a variety of elective courses that offer diversity in training, study and research at the undergraduate level. Within the department, faculty members are active in many research areas including Organometallic Chemistry, Organic Synthesis, Photochemistry, Protein and Nucleic Acid Biochemistry, Molecular Biology of Viruses, Electrochemistry, Molecular Spectroscopy, Reaction Kinetics, Atmospheric and Environmental Chemistry, Surface Chemistry and Catalysis, and new areas of computer applications.

This major must be accompanied by the professional preparation program in secondary education offered through Woodring College of Education. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

#### Why Consider a Chemistry/Biology-Secondary Major?

The programs of study within the Chemistry major provide many benefits to students. There are a wide variety of accredited programs that are designed to meet diverse career goals. There is close student-faculty contact and relatively small classes. The students have direct access to modern laboratory equipment and instrumentation, and there are opportunities for research work under the direction of a faculty advisor. The Chemistry Department at Western Washington University is approved by the American Chemical Society, and students who complete the Bachelor of Science in the Chemistry program receive ACS certification of their degree.

#### Contact Information

##### Chemistry Department Chair

James R. Vyvyan  
Chemistry Building 270A  
360-650-2883  
James.Vyvyan@wwu.edu

##### Teacher Education Admissions

Miller Hall 150  
360-650-3313  
<http://www.wce.wwu.edu/admiss>

##### Chemistry Department

Chemistry Building 270  
360-650-3070  
chemdept@chem.wwu.edu

##### Secondary Education Professional Program Information Program Manager

Janna Cecka  
Miller Hall 401C  
360-650-3347  
Janna.Cecka@wwu.edu

##### Biology Education Advisor

Deborah Donovan  
Biology 310  
360-650-7251  
Deborah.Donovan@wwu.edu

##### Secondary Education Program Coordinator

Debbie Gramm  
Miller Hall 401A  
360-650-3327  
Debbie.Gramm@wwu.edu

### Sample Careers

High School Chemistry/Biology Teacher

### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

The Biology Department has a two-step process for admission into our degree programs. Phase I students are students who have declared their intent to major in biology, and are in the process of completing the introductory biology (BIOL 204, 205, 206) and general chemistry (CHEM 121, 122, 123) series. Admission to Phase II is based on academic performance in the introductory courses. Students must achieve an average grade of 2.9 or higher in their introductory biology and general chemistry courses before they can advance to Phase II and begin taking upper-division coursework.

This major must be accompanied by the professional preparation program in secondary education. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

As certification to teach high school now requires more than four years of study, advisement prior to or at the beginning of the third year is absolutely necessary to avoid lengthening the program.

### Grade Requirements

Recommendation for teaching endorsement normally requires completion of the major with a grade point of 2.50 or better in the required major courses. Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

### Requirements

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- BIOL 321 - Genetics
- BIOL 323 - Cell and Molecular Biology
- BIOL 325 - Ecology
- BIOL 326 - Ecology Laboratory
- BIOL 432 - Evolutionary Biology
- CHEM 351 - Organic Chemistry
- CHEM 352 - Organic Chemistry
- CHEM 353 - Organic Chemistry
- CHEM 354 - Organic Chemistry Laboratory I
- SCED 370 - Science and Society
- SCED 481 - Fundamentals of Teaching Science
- SCED 491 - Methods in Secondary Education for Science Teachers
  - One course from:
    - BIOL 471 - Biochemistry I
    - CHEM 471 - Biochemistry I
  - One course from:
    - BIOL 472 - Biochemistry II
    - CHEM 472 - Biochemistry II
- One course from:
  - BIOL 474 - Biochemistry Laboratory

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- CHEM 474 - Biochemistry Laboratory
- One course from:
  - BIOL 322 - Genetics Lab
  - BIOL 324 - Methods in Molecular Biology
  - Choose one of the following series:
    - CHEM 121 - General Chemistry I
    - CHEM 122 - General Chemistry II
    - CHEM 123 - General Chemistry III
    - CHEM 333 - Analytical Chemistry
    - or
    - CHEM 125 - General Chemistry I, Honors
    - CHEM 126 - General Chemistry II, Honors
    - CHEM 225 - General Chemistry III, Honors
  - Choose one of the following series:
    - PHYS 114 - Principles of Physics I
    - PHYS 115 - Principles of Physics II
    - PHYS 116 - Principles of Physics III
    - or
    - PHYS 161 - Physics with Calculus I
    - PHYS 162 - Physics with Calculus II
    - PHYS 163 - Physics with Calculus III
  - One course from:
    - MATH 124 - Calculus and Analytic Geometry I
    - MATH 134 - Calculus I Honors

### Additional Requirements

### Secondary Education Professional Program Requirements (68 credits)

- □ SEC 301 - Educational Psychology I: Development and Individual Differences
- □ SEC 302 - Educational Psychology II: Motivation, Learning and Assessment
- □ SEC 310 - Education, Culture, and Equity
- □ SEC 410 - Dynamics of Teaching
- □ SEC 411 - Philosophical Foundations of Education
- □ SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- □ SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- □ SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- □ SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- □ SEC 433 - Teaching Laboratory
- □ SEC 435 - Middle Level Practicum
- □ SEC 436 - Secondary School Practicum
- □ SEC 444 - Supporting Teaching and Learning with Technology
- □ SEC 495 - Internship - Secondary
- □ SPED 363 - Secondary Students With Special Needs

### **Chemistry/Mathematics — Secondary, BAE**

Combined major offered by the Department of Chemistry, College of Sciences and Technology and the Department of Mathematics, College of Sciences and Technology

**103-121 credits plus supporting courses in physics****Introduction/What is the Study of Chemistry/Mathematics-Secondary?**

The program of study for the chemistry/mathematics majors provides many benefits to students, such as close student-faculty contact and relatively small classes. The students have direct access to modern laboratory equipment and instrumentation, and there are opportunities for research work under the direction of a faculty advisor.

As a practical matter, Mathematics is a science of pattern and order. Its domain is not molecules or cells, but numbers, chance, form, algorithms, and change. As a science of abstract objects, Mathematics relies on logic rather than on observation as its standard of truth, yet employs observation, simulation, and even experimentation as means of discovering truth." From: Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences.

This major must be accompanied by the professional preparation program in secondary education offered through Woodring College of Education. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

**Why Consider a Mathematics-Secondary in Chemistry Major?**

Teaching mathematics and chemistry is a challenge, a responsibility, and an opportunity. Learning to teach mathematics and chemistry occurs through a variety of means: the study of a wide variety of mathematics and chemistry, pedagogical preparation within a mathematical and science context, formal clinical preparation in education, an extended internship, and continual experiences as a student, learner, and problem solver in mathematics and chemistry.

Everyone aspiring to be a mathematics and chemistry teacher is aware of the demand for qualified teachers at the secondary level, but there is an even greater need for quality mathematics and chemistry teachers—teachers who care about students, mathematics and chemistry teachers who have a broad and deep understanding of mathematics and chemistry and teachers who are thoroughly professional. The responsibilities are great, but the rewards are even greater.

As a prospective teacher you need to focus on expanding your personal understanding of mathematics and chemistry and capitalizing on opportunities to work with pre-college students as a tutor, as a classroom assistant, as a practicum student, and as a novice teacher in your internship.

Contact Information		
<b>Chemistry Department Chair</b> James R. Vyvyan Chemistry Building 270A 360-650-2883 James.Vyvyan@wwu.edu	<b>Chemistry Department</b> Chemistry Building 270 360-650-3070 chemdept@chem.wwu.edu	<b>Math Department</b> Bond Hall 202 360-650-3785 mathdept@wwu.edu <a href="http://www.wwu.edu/depts/math">http://www.wwu.edu/depts/math</a>
<b>Math Department Advisor</b> Jerry Johnson Bond Hall 400 360-650-3801 Jerry.Johnson@wwu.edu	<b>Secondary Education Professional Program Information Program Manager</b> Janna Cecka Miller Hall 401C 360-650-3347 Janna.Cecka@wwu.edu	<b>Secondary Education Program Coordinator</b> Debbie Gramm Miller Hall 401A 360-650-3327 Debbie.Gramm@wwu.edu
<b>Math Department Advisor</b> Mildred Johnson Bond Hall 212 360-650-3459 Millie.Johnson@wwu.edu		

## Sample Careers

Secondary Education Teacher

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)**How to Declare (Admission and Declaration Process):**

This major must be accompanied by the professional education program in secondary education. This major meets the requirements for Washington state teaching endorsements in both chemistry and mathematics. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

As certification to teach high school now requires more than four years of study, advisement prior to or at the beginning of the third year is absolutely necessary to avoid lengthening the program.

**Grade Requirements**

Recommendation for teaching endorsement normally requires completion of the following major with a grade point of 2.50 or better in the required major courses.

Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

## Requirements

- CHEM 461 - Physical Chemistry
- CHEM 462 - Physical Chemistry
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry II
- OR
- MATH 134 - Calculus I Honors
- MATH 135 - Calculus II Honors
- OR
- MATH 138 - Accelerated Calculus
- Choose either:
  - MATH 204 - Elementary Linear Algebra
  - MATH 331 - Ordinary Differential Equations
- OR
- MATH 203 - Linear Algebra and Differential Equations I
- MATH 303 - Linear Algebra and Differential Equations II
- MATH 309 - Introduction to Proof in Discrete Mathematics
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 331 - Ordinary Differential Equations
- MATH 360 - Euclidean and Non-Euclidean Geometry
- MATH 419 - Historical Perspectives of Mathematics
- MATH 483 - Methods of Teaching Secondary Mathematics
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III
- SCED 370 - Science and Society
- SCED 481 - Fundamentals of Teaching Science

- SCED 491 - Methods in Secondary Education for Science Teachers
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - CHEM 333 - Analytical Chemistry
  - or
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- Option A or B:
  - Option A:
    - CHEM 251 - Elementary Organic Chemistry
    - CHEM 375 - Elements of Biochemistry
  - Option B:
    - Choose one of the following series:
      - CHEM 351 - Organic Chemistry
      - CHEM 352 - Organic Chemistry
      - CHEM 353 - Organic Chemistry
      - CHEM 354 - Organic Chemistry Laboratory I
    - And either:
      - CHEM 375 - Elements of Biochemistry
      - or
      - CHEM 471 - Biochemistry I
      - CHEM 472 - Biochemistry II
      - CHEM 473 - Molecular Biology
- At least two of the following:
  - MATH 307 - Mathematical Computing
  - MATH 341 - Probability and Statistical Inference
  - MATH 410 - Mathematical Modeling

#### Additional Requirements

#### Secondary Education Professional Program Requirements (68 credits)

- SEC 301 - Educational Psychology I: Development and Individual Differences
- SEC 302 - Educational Psychology II: Motivation, Learning and Assessment
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching Laboratory
- SEC 435 - Middle Level Practicum
- SEC 436 - Secondary School Practicum
- SEC 444 - Supporting Teaching and Learning with Technology



# CHEMISTRY

- □ SEC 495 - Internship - Secondary
- □ SPED 363 - Secondary Students With Special Needs

## Chemistry/Physics – Secondary, BAE

Combined major offered by the Department of Chemistry, College of Sciences and Technology and the Department of Physics, College of Sciences and Technology

### 94-114 credits

#### Introduction/What is the Study of Chemistry/Physics-Secondary?

The Chemistry major provides many benefits to students. There is close student-faculty contact and relatively small classes. The students have direct access to modern laboratory equipment and instrumentation, and there are opportunities for research work under the direction of a faculty advisor.

Physics is the fundamental science. It is the study of matter and energy and of the interaction between the two. Astronomy, Biology, Chemistry, Geology and Engineering apply the principles of Physics to specific problems. Almost all areas of modern technology involve applications of Physics.

This major must be accompanied by the professional preparation program in secondary education offered through Woodring College of Education. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

#### Why Consider a Chemistry/Physics-Secondary Major?

The Department of Chemistry, in addition to its core of fundamental studies in Physical, Inorganic, Organic, Analytical and Biochemistry, has added a variety of elective courses that offer diversity in training, study and research at the undergraduate level.

The study of Physics provides an excellent liberal arts foundation and can open a variety of doors for jobs, including Secondary Education.

#### Contact Information

##### Chemistry Department Chair

James R. Vyvyan  
Chemistry Building 270A  
360-650-2883  
James.Vyvyan@wwu.edu

##### Physics Department

Communications Facility 385  
360-650-3618

##### Chemistry Department

Chemistry Building 270  
360-650-3070  
chemdept@chem.wwu.edu

##### Secondary Education

##### Professional Program Information Program Manager

Janna Cecka  
Miller Hall 401C  
360-650-3347  
Janna.Cecka@wwu.edu

##### Physics Education Advisor

Andrew Boudreaux  
Communications Facility 369  
360-650-7383  
Andrew.Boudreaux@wwu.edu

##### Secondary Education Program Coordinator

Debbie Gramm  
Miller Hall 401A  
360-650-3327  
Debbie.Gramm@wwu.edu

#### Sample Careers

Secondary Education Teacher

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

This major must be accompanied by the professional preparation program in secondary education. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

As certification to teach high school now requires more than four years of study, advisement prior to or at the beginning of the third year is absolutely necessary to avoid lengthening the program.

### Grade Requirements

A cumulative GPA of at least 2.50, plus a minimum grade of C (2.0) or better in the individual courses, must be maintained in the courses required by the major. Students must also earn a grade of C (2.0) or better in the secondary education professional program.

### Requirements

- ASTR 315 - The Solar System
- CHEM 461 - Physical Chemistry
- CHEM 462 - Physical Chemistry
- MATH 224 - Multivariable Calculus and Geometry I
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III
- PHYS 226 - Physics with Calculus IV
- PHYS 224 - Modern Physics I
- PHYS 225 - Modern Physics II
- PHYS 326 - Tools and Data Analysis
- SCED 370 - Science and Society
- SCED 481 - Fundamentals of Teaching Science
- SCED 491 - Methods in Secondary Education for Science Teachers
- Choose either:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - CHEM 333 - Analytical Chemistry
 or
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- Choose either option A or B:
  - Option A:
    - CHEM 251 - Elementary Organic Chemistry
    - CHEM 375 - Elements of Biochemistry
  - Option B:
    - CHEM 351 - Organic Chemistry
    - CHEM 352 - Organic Chemistry
    - CHEM 353 - Organic Chemistry
    - CHEM 354 - Organic Chemistry Laboratory I
    - CHEM 375 - ELEMENTS OF BIOCHEMISTRY (OR the following):
    - CHEM 471 - Biochemistry I
    - CHEM 472 - Biochemistry II
    - CHEM 473 - Molecular Biology
- 6 upper-division credits in physics and/or astronomy under advisement, to include 2-3 credits of:

## CHEMISTRY

- PHYS 491 - Independent Research
- Choose either:
- MATH 124 - Calculus and Analytic Geometry I
- MATH 125 - Calculus and Analytic Geometry II
- or
- MATH 134 - Calculus I Honors
- MATH 135 - Calculus II Honors
- or
- MATH 138 - Accelerated Calculus

### Additional Requirements

### Secondary Education Professional Program Requirements (68 credits)

- SEC 301 - Educational Psychology I: Development and Individual Differences
- SEC 302 - Educational Psychology II: Motivation, Learning and Assessment
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching Laboratory
- SEC 435 - Middle Level Practicum
- SEC 436 - Secondary School Practicum
- SEC 444 - Supporting Teaching and Learning with Technology
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

## Bachelor of Science

### Biochemistry, BS

#### 110 credits

#### Introduction/What is the Study of Biochemistry?

Admission to the Bachelor of Science major in biochemistry is selective and based upon preparation and prior academic performance. Application may be made through the chemistry department, Chemistry Building 270. Admission to the biochemistry major will be in two phases. Students will be designated Phase I majors until they have completed CHEM 121, 122, 123, 351 and 352 and BIOL 205. Students will be admitted to Phase II based on their performance in Phase I. Students with a grade point average of 3.0 or higher in the Phase I courses will be given preferential admission to Phase II. Students with a grade point average below 3.0 will be considered on a case by case basis for remaining spaces in the major. See the department's website for more details.

This major is part of an interdisciplinary program between the biology and chemistry departments at Western. The BS degree in biochemistry (with greater emphasis on the physical chemical theory behind biological

chemistry) is offered via the chemistry department, whereas a BS degree in cellular and molecular biology (with a different emphasis) is offered via the biology department. The requirements for the BS in biochemistry are listed below. For the cellular and molecular biology degree program, see the biology department section of this catalog.

This program is specifically designed for students who seek graduate study or employment in biochemistry or molecular biology.

A typical four-year program leading to a Bachelor of Science degree in biochemistry is described on the department's website.

### Why Consider a Biochemistry Major?

The programs of study within the Chemistry major provide many benefits to students. There are a wide variety of accredited programs designed to meet diverse career goals. There is close student-faculty contact and relatively small classes. The students have direct access to modern laboratory equipment and instrumentation, and there are opportunities for research work under the direction of a faculty advisor. This major is part of an interdisciplinary program between the Biology and Chemistry Departments. The B.S. degree in Biochemistry places a greater emphasis on the physical chemical theory behind biological chemistry. This program is specifically designed for students who seek graduate study or employment in biochemistry or molecular biology.

#### Contact Information

##### Chemistry Department Chair

James R. Vyvyan  
Chemistry Building 270A  
360-650-2883  
James.Vyvyan@wwu.edu

##### Undergraduate Advisor

Chemistry Department  
Administrative Office  
Chemistry Building 270  
360-650-3070  
chemdept@chem.wwu.edu

#### Sample Careers

Chemical/Pharmaceutical Sales | Physician | Crime Lab Analyst | High School Teacher | Industrial Chemist | Technical Writing | Dentist | Forensic Scientist | Quality Assurance Specialist | Research Scientist | Occupational Safety Specialist | Veterinarian | Science Lab Technician | Biochemist | Biotechnology Scientist | College Professor | Environmental Scientist/Consultant

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 321 - Genetics
- BIOL 323 - Cell and Molecular Biology
- BIOL 324 - Methods in Molecular Biology
- CHEM 351 - Organic Chemistry
- CHEM 352 - Organic Chemistry
- CHEM 353 - Organic Chemistry
- CHEM 354 - Organic Chemistry Laboratory I

## CHEMISTRY

- CHEM 461 - Physical Chemistry
- CHEM 467 - Biophysical Chemistry
- CHEM 468 - Biophysical Chemistry
- CHEM 471 - Biochemistry I
- CHEM 472 - Biochemistry II
- CHEM 473 - Molecular Biology
- CHEM 474 - Biochemistry Laboratory
- MATH 224 - Multivariable Calculus and Geometry I
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - CHEM 333 - Analytical Chemistry
  - or
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry II
  - or
  - MATH 134 - Calculus I Honors
  - MATH 135 - Calculus II Honors
  - or
  - MATH 138 - Accelerated Calculus
- Approved electives to total 2 credits

### **Chemistry, BS**

Department of Chemistry, College of Sciences and Technology

#### **109 credits**

#### **Introduction/What is the Study of Chemistry?**

The Department of Chemistry, in addition to its core of fundamental studies in Physical, Inorganic, Organic, Analytical and Biochemistry, has added a variety of elective courses that offer diversity in training, study and research at the undergraduate level. Within the department, faculty members are active in many research areas including Organometallic Chemistry, Organic Synthesis, Photochemistry, Protein and Nucleic Acid Biochemistry, Molecular Biology of Viruses, Electrochemistry, Molecular Spectroscopy, Reaction Kinetics, Atmospheric and Environmental Chemistry, Surface Chemistry and Catalysis, and new areas of computer applications.

#### **Why Consider a Chemistry Major?**

The programs of study within the Chemistry major provide many benefits to students. There are a wide variety of accredited programs that are designed to meet diverse career goals. There is close student-faculty

contact and relatively small classes. The students have direct access to modern laboratory equipment and instrumentation, and there are opportunities for research work under the direction of a faculty advisor. The Chemistry Department at Western Washington University is approved by the American Chemical Society, and students who complete the Bachelor of Science in the Chemistry program receive ACS certification of their degree.

#### Contact Information

##### Chemistry Department Chair

James R. Vyvyan  
Chemistry Building 270A  
360-650-2883  
James.Vyvyan@wwu.edu

##### Department Office

Chemistry Building 270  
360-650-3070  
chemdept@chem.wwu.edu

#### Sample Careers

High School Chemistry Teacher | Chemical/Pharmaceutical Sales | Crime Lab Analyst | Industrial Chemist | Veterinarian | Technical Writing | Forensic Scientist | Quality Assurance Specialist | Research Scientist | Physician | Occupational Safety Specialist

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingmajor.shtml](http://www.wwu.edu/careers/students_choosingmajor.shtml)

### How to Declare (Admission and Declaration Process):

Admission to the Bachelor of Science major in chemistry is selective and based upon preparation and prior academic performance. Application may be made through the chemistry department, Chemistry Building 270. Admission to the BS-Chemistry major will be in two phases. Students will be designated Phase I majors until they have completed CHEM 121, 122, 123, 351, 352 and MATH 124, 125. Students will be admitted to Phase II based on their performance in Phase I. Students with a grade point average of 3.0 or higher in the Phase I courses will be given preferential admission to Phase II. Students with a grade point average below 3.0 will be considered on a case by case basis for remaining spaces in the major. See the department's website for more details. The chemistry department at Western Washington University is approved by the American Chemical Society, and students who complete the Bachelor of Science in chemistry program receive ACS certification of their degree.

A typical four-year program leading to a Bachelor of Science (ACS certified) is described on the department's website.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- CHEM 351 - Organic Chemistry
- CHEM 352 - Organic Chemistry
- CHEM 353 - Organic Chemistry
- CHEM 354 - Organic Chemistry Laboratory I
- CHEM 355 - Organic Chemistry Laboratory II
- CHEM 434 - Instrumental Analysis
- CHEM 436 - Instrumental Analysis Lab
- CHEM 441 - Advanced Inorganic Chemistry
- CHEM 461 - Physical Chemistry
- CHEM 462 - Physical Chemistry

## CHEMISTRY

- CHEM 463 - Physical Chemistry
- CHEM 464 - Physical/Inorganic Chemistry Laboratory I
- CHEM 465 - Physical/Inorganic Chemistry Laboratory II
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 204 - Elementary Linear Algebra
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III
- Choose one of the following series:
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - CHEM 333 - Analytical Chemistryor
  - CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- Choose either:
  - CHEM 375 - Elements of Biochemistryor
  - CHEM 471 - Biochemistry I
  - CHEM 472 - Biochemistry II
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry IIor
  - MATH 134 - Calculus I Honors
  - MATH 135 - Calculus II Honorsor
  - MATH 138 - Accelerated Calculus
- Advanced electives with prior departmental approval to total 9 credits

## Master of Science

### Chemistry, Industry Internship, Non-Thesis, MS

*College of Sciences and Technology*

#### Graduate Faculty

**Anthony-Cahill, Spencer J.**, PhD, protein folding, protein engineering.

**Antos, John** (2012) Assistant Professor. BS, Ohio State University; PhD, University of California.

**Berger, Robert** (2013) Assistant Professor. A.B. Chemistry, Princeton University; PhD, Cornell University.

**Borda, Emily J.**, PhD, investigation of college students' development of epistemological beliefs about science.

**Bussell, Mark E.**, PhD, surface and materials chemistry of catalytic and environmental processes.

**Emory, Steven R.**, PhD, analytical chemistry, spectroscopy, nanomaterials.

**Gilbertson, John D.**, PhD, inorganic synthesis, small molecule activation, nanoparticle catalysis.

**Kriz, George S.**, PhD, physical organic chemistry.

**Leger, Janelle** (2009) Associate Professor. BS, University of California at Davis; PhD, University of California at Santa Cruz.

**Murphy, Amanda.**, PhD, organic synthesis, polymer and materials chemistry.

**O'Neil, Gregory W.**, PhD, natural products chemistry, organic synthesis.

**Patrick, David L.**, PhD, analytical and computational chemistry of condensed phases.

**Prody, Gerry A.**, PhD, biochemistry and molecular biology of plant viruses, plant pollen tubes, marine biochemistry, environmental biochemistry.

**Rider, David** (2010) Assistant Professor. BS, Simon Fraser University, PhD, University of Toronto.

**Smirnov, Serge**, PhD, structure, dynamics, function and engineering of modular proteins.

**Spiegel, P. Clint**, PhD, RNA and protein biochemistry, ribosome structure and function.

**Vyvyan, James R.**, PhD, organic synthesis, natural products, asymmetric catalysis.

Program Advisor: P. Clint Spiegel

## Goals

This program prepares students for technical careers in industry, or for further study toward a more advanced degree.

## Prerequisites

A bachelor's degree and departmental approval. Applicants are expected to have completed the following courses (or their equivalent) with a grade of B or better: CHEM 333, CHEM 434, CHEM 351, 352,353, CHEM 461, 462, 463, and CHEM 441 or CHEM 471, 472, 473. A student with lower than B may be required to repeat that course as determined under advisement with the graduate program advisor.

## Application Information

**Specific Test Requirements:** Graduate Record Exam, General Test.

**Supporting Materials:** A statement of research interests and future goals, including identification of up to three potential faculty research advisors, must accompany application.

### Industrial Internship Option, Non-Thesis

Students interested in pursuing a career in industry can obtain practical experience by participating in the industrial internship option as part of their MS program. Students choosing this option will normally earn a master's degree via the non-thesis option. However, in those instances where the research problem undertaken in the industrial setting can be coordinated with on-campus research, the student may exercise the thesis option, with approval of the graduate advisor.

Students spend one or two quarters as an intern with a company which has been selected in advance. This internship will normally take place during the second year of graduate study. Students interested in pursuing an industrial internship should notify the program advisor as early as possible during the first year of graduate study. The department cannot guarantee that an internship opening will be available for all interested students.

In addition to the internship, students exercising this option will be expected to submit a comprehensive report, according to an approved format, describing the work accomplished during the internship. A seminar presentation describing the work is required. Additionally, the student will be expected to pursue a limited research problem on campus. This research problem will normally require the equivalent of one quarter's work, although it may be extended over more than one quarter.

### Course Work Requirements (48 credits)

- CHEM 501 - Research Project in Chemistry
- CHEM 595 - Seminar
- CHEM 596 - Seminar in Current Chemistry and Biochemistry
- CHEM 694 - Industrial Internship in Chemistry



# CHEMISTRY

plus 31 credits under advisement

## Chemistry, Thesis, MS

*College of Sciences and Technology*

### Graduate Faculty

**Anthony-Cahill, Spencer J.**, PhD, protein folding, protein engineering.

**Antos, John** (2012) Assistant Professor. BS, Ohio State University; PhD, University of California.

**Berger, Robert** (2013) Assistant Professor. A.B., Chemistry, Princeton University; PhD, Cornell University.

**Borda, Emily J.**, PhD, investigation of college students' development of epistemological beliefs about science.

**Bussell, Mark E.**, PhD, surface and materials chemistry of catalytic and environmental processes.

**Emory, Steven R.**, PhD, analytical chemistry, spectroscopy, nanomaterials.

**Gilbertson, John D.**, PhD, inorganic synthesis, small molecule activation, nanoparticle catalysis.

**Kriz, George S.**, PhD, physical organic chemistry.

**Leger, Janelle** (2009) Associate Professor. BS, University of California at Davis; PhD, University of California at Santa Cruz.

**Murphy, Amanda.**, PhD, organic synthesis, polymer and materials chemistry.

**O'Neil, Gregory W.**, PhD, natural products chemistry, organic synthesis.

**Patrick, David L.**, PhD, analytical and computational chemistry of condensed phases.

**Prody, Gerry A.**, PhD, biochemistry and molecular biology of plant viruses, plant pollen tubes, marine biochemistry, environmental biochemistry.

**Rider, David** (2010) Assistant Professor. BS, Simon Fraser University; PhD, University of Toronto.

**Smirnov, Serge**, PhD, structure, dynamics, function and engineering of modular proteins.

**Spiegel, P. Clint**, PhD, RNA and protein biochemistry, ribosome structure and function.

**Vyvyan, James R.**, PhD, organic synthesis, natural products, asymmetric catalysis.

Program Advisor: P. Clint Spiegel

### Goals

This program prepares students for technical careers in industry, or for further study toward a more advanced degree.

### Prerequisites

A bachelor's degree and departmental approval. Applicants are expected to have completed the following courses (or their equivalent) with a grade of B or better: CHEM 333, CHEM 434, CHEM 351, 352, 353, CHEM 461, 462, 463, and CHEM 441 or CHEM 471, 472, 473. A student with lower than B may be required to repeat that course as determined under advisement with the graduate program advisor.

### Application Information

**Specific Test Requirements:** Graduate Record Exam, General Test.

**Supporting Materials:** A statement of research interests and future goals, including identification of up to three potential faculty research advisors, must accompany application.

### Course Work Requirements

Thesis option: (minimum 45 credits)

- CHEM 595 - Seminar (2)
- CHEM 596 - Seminar in Current Chemistry and Biochemistry (3)
- CHEM 690 - Thesis (12)

plus 28 credits under advisement

### Thesis Option

The Master of Science thesis demonstrates that you are capable of pursuing a program of original and independent research, that you can formulate and carry out a research project, and that you can report on the project in a proper scientific manner. The thesis option prepares students for technical careers in industry, or for further study toward a more advanced degree. This option requires advanced course work in chemistry, biochemistry, or environmental chemistry, and research, with the latter culminating in a MS thesis. Shortly after entering the program students select a faculty advisor based on their research interests and agree on a research problem. Under the guidance of their faculty advisor, students carry out the research program, and write and defend the thesis in a final oral exam.

## Minor

### Chemistry Minor

Department of Chemistry, College of Sciences and Technology

### 30-33 credits

### Introduction/What is the Study of Chemistry?

### Why Consider a Chemistry Minor?

#### Contact Information

#### Chemistry Department Chair

James R. Vyvyan  
Chemistry Building 270A  
360-650-2883  
James.Vyvyan@wwu.edu

#### Sample Careers

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- Completion of one of the following tracks:
  - Track A:
    - CHEM 333 - Analytical Chemistry

# CHEMISTRY

- CHEM 461 - Physical Chemistry
  - CHEM 462 - Physical Chemistry
  - CHEM 463 - Physical Chemistry
- Track B:
- CHEM 333
  - CHEM 351 - Organic Chemistry
  - CHEM 352 - Organic Chemistry
  - CHEM 353 - Organic Chemistry
  - CHEM 354 - Organic Chemistry Laboratory I
- Track C:
- CHEM 351
  - CHEM 352
  - CHEM 353
  - CHEM 354
- One course from:
- CHEM 375 - Elements of Biochemistry
  - CHEM 471 - Biochemistry I

The general chemistry honors sequence (CHEM 125, 126, 225) may be substituted for CHEM 121, 122, 123 and 333, for Tracks A and B.

## Chemistry Courses

### **CHEM 100 - Introduction to Chemistry**

An introductory course in chemistry designed for freshmen students intending to enroll in the General Chemistry sequence (CHEM 121, 122, 123). Instruction in dimensional analysis, atomic structure, basic laboratory technique, and chemical bonding. Includes lab. S/U grading.

**Prerequisites & Notes:** MATH 114 or equivalent intermediate algebra MPT score.

Credits: 2

Grade Mode: S/U

### **CHEM 101 - Chemical Concepts**

A course for non-science students. Emphasizes the process of building scientific models for how matter behaves through the collection and interpretation of evidence. Applications to important societal issues will also be discussed. Lab included.

Credits: 4

GUR Attributes: LSCI

### **CHEM 121 - General Chemistry I**

Stoichiometry atomic and molecular structure, states of matter, solutions, thermodynamics, chemical equilibrium, kinetics, electrochemistry.

Lab included.

**Prerequisites & Notes:** MATH 114 or equivalent intermediate algebra MPT score.

Credits: 5

GUR Attributes: LSCI

### **CHEM 122 - General Chemistry II**

Stoichiometry atomic and molecular structure, states of matter, solutions, thermodynamics, chemical equilibrium, kinetics, electrochemistry. Lab included.

**Prerequisites & Notes:** CHEM 121

Credits: 5

GUR Attributes: LSCI

### **CHEM 123 - General Chemistry III**

Stoichiometry atomic and molecular structure, states of matter, solutions, thermodynamics, chemical equilibrium, kinetics, electrochemistry. Lab included.

**Prerequisites & Notes:** CHEM 122

Credits: 4

GUR Attributes: LSCI

**CHEM 125 - General Chemistry I, Honors**

An accelerated survey of fundamental chemical principles, including atomic and molecular structure, bonding, chemical thermodynamics, equilibria, kinetics, solution chemistry, nuclear chemistry, and analytical methods. Lab included.

**Prerequisites & Notes:** One year of high school chemistry or equivalent; MATH 114 or equivalent score on Western's intermediate algebra Math Placement Test

Credits: 5

GUR Attributes: LSCI

**CHEM 126 - General Chemistry II, Honors**

An accelerated survey of fundamental chemical principles, including atomic and molecular structure, bonding, chemical thermodynamics, equilibria, kinetics, solution chemistry, nuclear chemistry, and analytical methods. Lab included.

**Prerequisites & Notes:** CHEM 125

Credits: 5

GUR Attributes: LSCI

**CHEM 201 - Independent Research**

Undergraduate research under supervision. Written report required.

**Prerequisites & Notes:** CHEM 351 or concurrent and permission of instructor.

Credits: 1-3

Grade Mode: S/U

**CHEM 225 - General Chemistry III, Honors**

An accelerated survey of fundamental chemical principles, including atomic and molecular structure, bonding, chemical thermodynamics, equilibria, kinetics, solution chemistry, nuclear chemistry, and analytical methods. Lab included.

**Prerequisites & Notes:** CHEM 126

Credits: 5

GUR Attributes: LSCI

**CHEM 251 - Elementary Organic Chemistry**

Reactions, nomenclature and uses of carbon compounds; an abbreviated course in organic chemistry primarily for persons not requiring the CHEM 351-354 series.

**Prerequisites & Notes:** CHEM 121 or CHEM 125

Credits: 5

GUR Attributes: LSCI

**CHEM 301 - Independent Research**

Undergraduate research under supervision. Written report required. Repeatable to a maximum of 9 cr over three quarters. S/U grading.

**Prerequisites & Notes:** 30 credits of chemistry

Credits: 1-3

Grade Mode: S/U

**CHEM 308 - Introduction to Polymer Chemistry**

Types of polymers, methods of polymerization, and preparation of important commercial thermoplastic and thermosetting plastics. Addition and condensation polymers are prepared in the laboratory.

**Prerequisites & Notes:** CHEM 121 or CHEM 125; CHEM 251; ETEC 333

Credits: 3

**CHEM 333 - Analytical Chemistry**

Theory and practice of gravimetric, volumetric, potentiometric and spectrophotometric methods of analysis. Selected analytical topics such as ion exchange resins, non-aqueous solvents, chelates, extractions, chromatography.

**Prerequisites & Notes:** CHEM 123

Credits: 5

**CHEM 351 - Organic Chemistry**

Chemistry of carbon compounds with emphasis on structural theory, reactions and mechanisms.

**Prerequisites & Notes:** CHEM 123 or CHEM 225 or concurrent

Credits: 4

**CHEM 352 - Organic Chemistry**

Chemistry of carbon compounds with emphasis on structural theory, reactions and mechanisms.

**Prerequisites & Notes:** CHEM 351

Credits: 4

**CHEM 353 - Organic Chemistry**

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Chemistry of carbon compounds with emphasis on structural theory, reactions and mechanisms.

**Prerequisites & Notes:** CHEM 352  
Credits: 3

## **CHEM 354 - Organic Chemistry Laboratory I**

Techniques of organic chemistry: reactions, separations and syntheses of organic compounds.

**Prerequisites & Notes:** CHEM 352 or concurrent  
Credits: 3

## **CHEM 355 - Organic Chemistry Laboratory II**

Techniques of organic chemistry: reactions, separations; multi-step syntheses and introduction to practical spectroscopy. Includes online and hardcopy literature searching, use of chemical drawing software, and writing journal-style reports. This course is intended for students planning to major in Chemistry.

**Prerequisites & Notes:** CHEM 354, CHEM 353 or concurrent  
Credits: 3

## **CHEM 356 - Organic Chemistry Laboratory II for Life Sciences**

Techniques of organic chemistry: reactions, separations; syntheses and introduction to practical spectroscopy. This course is specifically designed to meet the requirements of students in Life Sciences, Biochemistry, and/or Pre-Healthcare Professions programs.

**Prerequisites & Notes:** CHEM 353 or concurrent; and CHEM 354  
Credits: 2

## **CHEM 375 - Elements of Biochemistry**

Introduction to the structure and function of proteins, nucleic acid, lipids, and carbohydrates. Enzyme chemistry. Replication, transcription, and translation of genetic information. Metabolism of carbohydrates, the citric acid cycle, electron transport, and oxidation phosphorylation. This course is not intended for students in the bachelor of science-biochemistry program.

**Prerequisites & Notes:** CHEM 251 or CHEM 351, CHEM 352, CHEM 353

Credits: 4

## **CHEM 401 - Independent Research**

Undergraduate research under supervision. Written report required. Repeatable to a maximum of 9 cr over three quarters. S/U grading.

**Prerequisites & Notes:** CHEM 461 or concurrent and permission of instructor.  
Credits: 1-3  
Grade Mode: S/U

## **CHEM 405 - Intensive Writing in Chemistry or Biochemistry**

Concentrated study of a topic associated with chemistry or biochemistry. Students are required to write a substantial expository paper. Writing proficiency course.

**Prerequisites & Notes:** CHEM 401, CHEM 425, CHEM 471, CHEM 494 or CHEM 498 or concurrent; and permission of instructor.  
Credits: 1

## **CHEM 425A - Natural Products Chemistry.**

**Prerequisites & Notes:** CHEM 353; instructor permission  
Credits: 3

## **CHEM 425B - Organic Reactions.**

**Prerequisites & Notes:** CHEM 353; instructor permission  
Credits: 3

## **CHEM 425C - Medicinal Chemistry.**

**Prerequisites & Notes:** CHEM 353 or instructor permission; CHEM 471 recommended  
Credits: 3

## **CHEM 425D - Group Theory and Spectroscopy.**

**Prerequisites & Notes:** CHEM 463; instructor permission  
Credits: 3

## **CHEM 425H - Enzyme Chemistry.**

**Prerequisites & Notes:** CHEM 463 or CHEM 468; CHEM 471; instructor permission

Credits: 3

**CHEM 425I - Immunology.**

**Prerequisites & Notes:** CHEM 473/BIOL 473;  
instructor permission  
Credits: 3

**CHEM 425K - Bioanalytical Instrumentation**

The analysis of biomolecules, substances of significant biological interest, and substances in biological matrices using advanced instrumental methods.

**Prerequisites & Notes:** CHEM 333 or instructor permission  
Credits: 3

**CHEM 425M - Organometallic Chemistry.**

**Prerequisites & Notes:** CHEM 441; instructor permission  
Credits: 3

**CHEM 425P - Computers in Chemistry.**

**Prerequisites & Notes:** CHEM 461 or CHEM 467 or PHYS 331 or concurrent, or instructor permission  
Credits: 3

**CHEM 425R - Surface Chemistry.**

**Prerequisites & Notes:** CHEM 461; instructor permission  
Credits: 3

**CHEM 425S - Protein Engineering.**

**Prerequisites & Notes:** CHEM 471; instructor permission  
Credits: 3

**CHEM 425T - Virology.**

**Prerequisites & Notes:** CHEM 473/BIOL 473;  
instructor permission  
Credits: 3

**CHEM 425U - Advanced Topics in Chemistry: Bioinorganic Chemistry**

Examining binding sites and reactivity of biologically important metal ions, and the physical methods used to probe these sites.

**Prerequisites & Notes:** CHEM 461 or concurrent.  
Credits: 3

**CHEM 434 - Instrumental Analysis**

Theory or modern optical, electrical and other physical measurements applied to chemical analysis.

**Prerequisites & Notes:** CHEM 333 or CHEM 225; CHEM 461 or concurrent  
Credits: 3

**CHEM 436 - Instrumental Analysis Lab**

Application of modern instrumental methods of chemical analysis including optical, electrical and other physical measurements.

**Prerequisites & Notes:** CHEM 434 or concurrent.  
Credits: 2

**CHEM 441 - Advanced Inorganic Chemistry**

Bonding, structure and reactivity of inorganic molecules; transition metal and organometallic chemistry; chemistry of the nonmetallic elements.

**Prerequisites & Notes:** CHEM 462 or concurrent  
Credits: 4

**CHEM 454 - Organic Spectroscopy**

Identification of organic compounds by spectroscopic methods: infrared, nuclear magnetic resonance, ultraviolet and mass spectroscopy. Laboratory work includes application of spectroscopy in identifying unknowns with confirmation by chemical methods.

**Prerequisites & Notes:** CHEM 123 or CHEM 225; CHEM 353, CHEM 355  
Credits: 5

**CHEM 455 - Advanced Nmr Techniques**

A lecture/lab course in advanced techniques in nuclear magnetic resonance, including Fourier transformation, multiple pulse sequences, relaxation time measurements, gated decoupling, polarization transfer, pulse sequences and two-dimensional NMR experiments.

# CHEMISTRY

**Prerequisites & Notes:** CHEM 454  
Credits: 3

## **CHEM 461 - Physical Chemistry**

Atomic and molecular structure, states of matter, solutions, chemical thermodynamics and equilibria, chemical kinetics and electrochemistry.

**Prerequisites & Notes:** CHEM 123 or CHEM 225; MATH 224, and PHYS 121, PHYS 122, PHYS 123 or (PHYS 114, PHYS 115, and PHYS 116).  
Credits: 4

## **CHEM 462 - Physical Chemistry**

Atomic and molecular structure, states of matter, solutions, chemical thermodynamics and equilibria, chemical kinetics and electrochemistry.

**Prerequisites & Notes:** CHEM 461  
Credits: 4

## **CHEM 463 - Physical Chemistry**

Atomic and molecular structure, states of matter, solutions, chemical thermodynamics and equilibria, chemical kinetics and electrochemistry.

**Prerequisites & Notes:** CHEM 462  
Credits: 3

## **CHEM 464 - Physical/Inorganic Chemistry Laboratory I**

An integrated approach to inorganic synthesis and physical measurement. Includes formal report writing.

**Prerequisites & Notes:** CHEM 333 or CHEM 225; CHEM 441 or concurrent; CHEM 461; CHEM 462 or concurrent.  
Credits: 3

## **CHEM 465 - Physical/Inorganic Chemistry Laboratory II**

An integrated approach to inorganic synthesis and physical measurement. Includes formal report writing.

**Prerequisites & Notes:** CHEM 463 or concurrent and CHEM 464.  
Credits: 3

## **CHEM 467 - Biophysical Chemistry**

Biophysical experimental methods and theory, including classical and statistical thermodynamics, bonding, ligand binding, spectroscopy, transport processes, enzyme kinetics, and X-ray diffraction.

**Prerequisites & Notes:** MATH 224; one year of college physics; CHEM 471/BIOL 471  
Credits: 3

## **CHEM 468 - Biophysical Chemistry**

Biophysical experimental methods and theory, including classical and statistical thermodynamics, bonding, ligand binding, spectroscopy, transport processes, enzyme kinetics, and X-ray diffraction.

**Prerequisites & Notes:** CHEM 467, CHEM 461  
Credits: 4

## **CHEM 471 - Biochemistry I**

A consideration of the structure and function of biological macromolecules; intermediary metabolism; membrane structure and function; bioenergetics. Also offered as BIOL 471.

**Prerequisites & Notes:** CHEM 123 or 225; CHEM 353 or concurrent; and BIOL 205; CHEM 333 recommended; also offered as BIOL 471.  
Credits: 4

## **CHEM 472 - Biochemistry II**

A consideration of the structure and function of biological macromolecules; intermediary metabolism; membrane structure and function; bioenergetics. Also offered as BIOL 472.

**Prerequisites & Notes:** CHEM 471  
Credits: 4

## **CHEM 473 - Molecular Biology**

An examination of the structure, replication and expression of genetic information. Also offered as BIOL 473.

**Prerequisites & Notes:** CHEM 471; BIOL 321 or BIOL 323.  
Credits: 3

## **CHEM 474 - Biochemistry Laboratory**

Modern methods of isolation and characterization of biological macromolecules, especially enzymes

and other proteins. Also offered as BIOL 474.

**Prerequisites & Notes:** CHEM 123 or CHEM 225; CHEM 354 or BIOL 324; CHEM 471 (or concurrent) OR BIOL 471 (or concurrent).

Credits: 3

#### **CHEM 494 - Industrial Work Experience**

Academic credit awarded for chemical employment in industry or government in areas such as research, development or quality control. Written report and an oral or poster presentation describing the work are required.

**Prerequisites & Notes:** 30 credits of chemistry including CHEM 333 and permission of department.

Credits: 3

Grade Mode: S/U

#### **CHEM 498 - Honors Research in Chemistry**

Oral presentation and honors thesis required.

**Prerequisites & Notes:** Six credits of Chemistry research courses, advancement to departmental honors candidacy (application required).

Credits: 3

#### **CHEM 501 - Research Project in Chemistry**

Advanced individual laboratory projects under supervision. Repeatable to a maximum of 15 credits including original course.

**Prerequisites & Notes:** Permission of instructor.

Credits: 1-6

#### **CHEM 502 - Teaching Practicum**

Curriculum and instructional support for teaching the general chemistry laboratory sequence. Repeatable to a maximum of 3 cr. S/U grading.

**Prerequisites & Notes:** Permission of instructor.

Credits: 1

Grade Mode: S/U

#### **CHEM 510 - Special Topics**

Specialized lectures on a conference basis for a particular area of interest. Repeatable to a maximum of 12 credits including original course.

**Prerequisites & Notes:** Permission of instructor.

Credits: 1-6

#### **CHEM 511 - Advanced Laboratory Methods**

Specialized laboratory on a conference basis for a particular area of interest. Repeatable to a maximum of 12 credits including original course.

**Prerequisites & Notes:** CHEM 463

Credits: 1-6

#### **CHEM 534 - Instrumental Analysis**

Principles of chromatographic, spectrochemical and electrochemical methods of analysis.

**Prerequisites & Notes:** CHEM 333 or CHEM 225; CHEM 461 or concurrent; permission of instructor.

Credits: 3

#### **CHEM 535 - Bioanalytical Instrumentation**

The analysis of biomolecules, substances of significant biological interest, and substances in biological matrices using advanced instrumental methods.

**Prerequisites & Notes:** CHEM 333 or instructor permission

Credits: 3

#### **CHEM 536 - Instrumental Analysis Laboratory**

Advanced techniques of modern instrumental analysis including optical, electrical, and other physical measurements, including analysis of materials.

**Prerequisites & Notes:** CHEM 534 or concurrent.

Credits: 2

#### **CHEM 539 - Bioinorganic Chemistry**

examining binding sites and reactivity of biologically important metal ions, and the physical methods used to probe these sites.

**Prerequisites & Notes:** CHEM 461 or concurrent

Credits: 3

#### **CHEM 540 - Organometallic Chemistry**

Classes of organometallic compounds; structure, bonding, general patterns of reactivity; reactions; industrial homogeneous catalysis.

**Prerequisites & Notes:** CHEM 441



# CHEMISTRY

Credits: 3

## **CHEM 552 - Chemistry of Natural Products**

Isolation, structure, synthesis, biosynthesis and photochemistry of selected classes of natural products.

**Prerequisites & Notes:** CHEM 353 or instructor permission  
Credits: 3

## **CHEM 553 - Organic Reactions**

Organic chemical reactions as applied to problems in organic synthesis.

**Prerequisites & Notes:** CHEM 353 or instructor permission  
Credits: 3

## **CHEM 554 - Organic Spectroscopy**

Identification of organic compounds by spectroscopic methods: infrared, nuclear magnetic resonance, ultraviolet and mass spectroscopy. Lab included.

**Prerequisites & Notes:** CHEM 123, CHEM 353, CHEM 355  
Credits: 5

## **CHEM 555 - Advanced Nmr Techniques**

A lecture/lab course in advanced techniques in nuclear magnetic resonance, including Fourier transformation, multiple pulse sequences, relaxation time measurements, gated decoupling, polarization transfer and two-dimensional NMR experiments.

**Prerequisites & Notes:** CHEM 454 or CHEM 554  
Credits: 3

## **CHEM 556 - Medicinal Chemistry**

The chemistry of drug discovery, design, development, and action.

**Prerequisites & Notes:** CHEM 353 or instructor permission; CHEM 471 recommended  
Credits: 3

## **CHEM 562 - Group Theory and Spectroscopy**

Correlation of mathematical group theory with molecular symmetry and application of symmetry

groups to the interpretation of molecular spectra. Principle applications will be to infrared and Raman vibrational spectra.

**Prerequisites & Notes:** CHEM 463  
Credits: 3

## **CHEM 563 - Computers in Chemistry**

Use of computers in chemistry and biochemistry, including chemistry on the Internet, molecular modeling, visualization, simulation, and the control of laboratory experiments.

**Prerequisites & Notes:** CHEM 461 or CHEM 467 or PHYS 331 or concurrent, or instructor permission.  
Credits: 3

## **CHEM 565 - Surface Chemistry**

Physical chemistry of solid surfaces. Examples drawn from heterogeneous catalysis and environmental chemistry.

**Prerequisites & Notes:** CHEM 461  
Credits: 3

## **CHEM 573 - Enzyme Chemistry**

Preparation and measurement of activities of enzymes; mechanism of enzyme reactions; properties of individual enzymes and coenzymes.

**Prerequisites & Notes:** CHEM 463 or CHEM 468, CHEM 471  
Credits: 3

## **CHEM 575 - Immunology**

Biochemistry of the immune response, antibody structure and function, origin of antibody diversity, cell-mediated immunity.

**Prerequisites & Notes:** CHEM 473; instructor permission  
Credits: 3

## **CHEM 578 - Protein Engineering**

Analysis of protein structure and protein-ligand interactions, protein design considerations, and design of small molecule and protein-based therapeutic agents.

**Prerequisites & Notes:** CHEM 471

Credits: 3

**CHEM 579 - Virology**

Overview of viruses - their structures, life cycles and control. Bacterial, plant and animal viruses will be discussed.

**Prerequisites & Notes:** CHEM 473 or BIOL 473

Credits: 3

**CHEM 595 - Seminar**

Presentation of contemporary subjects in chemistry. Repeatable to a maximum of 2 cr. S/U grading.

Credits: 1

Grade Mode: S/U

**CHEM 596 - Seminar in Current Chemistry and Biochemistry**

Introduction to current research problems in chemistry and biochemistry. Repeatable to a maximum of 6 cr. S/U grading.

Credits: 1

Grade Mode: S/U

**CHEM 690 - Thesis**

Research in chemistry under faculty direction terminating in a master's thesis. Repeatable to a maximum of 12 cr. S/U grading.

Credits: 1-6

Grade Mode: S/U

**CHEM 694 - Industrial Internship in Chemistry**

A supervised technical field experience in chemical laboratory practice. The experience may be in an industrial or government laboratory setting in such areas as research and development, chemical sales, manufacturing, process development, clinical chemistry, analytical chemistry, quality control or environmental control. A project report following an approved format is required. Repeatable to a maximum of 12 cr. S/U grading.

**Prerequisites & Notes:** advancement to candidacy; graduate advisor permission

Credits: 1-6

Grade Mode: S/U

# Computer Science

## Introduction

The proliferation of desktop computers, laptop computers, mobile devices and networks is transforming the world rapidly and irreversibly. Search engines and social networking sites have provided information to and forged connections between people worldwide. Advances in areas such as the World Wide Web, robotics, video games, multicore computing, artificial intelligence and cyber security are obviously central to the discipline of computer science. However, other fields such as genetics, atomic physics, renewable energy, and health care depend upon computers for advancement as well. The increasing use of and reliance on computers in our modern technological society makes the study of computer science an exciting and challenging one.

Computer science at Western is composed of core classes organized around the study of design and analysis techniques used to write software in various application domains along with details about the internal workings of computers and networks. Elective classes in areas such as artificial intelligence, mobile device programming, robotics, graphics, web programming, bioinformatics, computer security, and video game programming allow students to explore areas of individual interest.

Faculty research interests span diverse areas of computer science including robotics, natural language processing, multiprocessing, cyber security, information retrieval, graphics, optimization algorithms, video games, bioinformatics, computer networks, and formal methods. Members of the department are involved in collaborative projects with government agencies, local industry and other academic units at Western.

## Faculty

**PERRY FIZZANO** (2007) Chair and Associate Professor. BS, Widener University; PhD, Dartmouth College.

**AHMED AWAD** (2011) Instructor, BS, Ain Shams University, PhD, University of Victoria.

**DAVID C. BOVER** (2002) Associate Dean and Professor. BS, Monash University; PhD, Australian National University.

**MARTIN GRANIER** (1997) Senior Instructor and Director, Internet Studies Center. BS, Middle Tennessee State University; MS, University of Southwestern Louisiana; PhD, University of Oregon.

**JAMES W. HEARNE** (1986) Professor. BA, MA, PhD, University of California.

**BRIAN HUTCHINSON** (2013) Assistant Professor, BS, MS Western Washington University, PhD University of Washington

**JAMES L. JOHNSON** (1981) Professor. BS, University of Louisville; MS, PhD, University of Minnesota.

**DEBRA S. JUSAK** (1988) Associate Professor. BA, State University of New York at Potsdam; MS, University of Connecticut; PhD, University of California-Irvine.

**JOHN D. LAWSON** (2006) Associate Professor. BS, MS, PhD, University of Oregon.

**YUDONG LIU** (2013) Assistant Professor. BS, MS, Jilin University; PhD, Simon Fraser University.

**GEOFFREY B. MATTHEWS** (1985) Professor. BA, University of California; MA, PhD, Indiana University.

**MICHAEL MEEHAN** (1996) Professor. BS, Birmingham-Southern College; MS, PhD, University of Alabama-Huntsville.

**PHILIP A. NELSON** (1987) Associate Professor. BS, Pacific Union College; MS, University of California-Davis; PhD, University of Washington.

**CHRISTOPHER REEDY** (2004) Senior Instructor. BS, MS, Massachusetts Institute of Technology; PhD, University of California-San Diego.

**JIANNA ZHANG** (2002) Associate Professor. BS, MS, PhD, University of Regina.

## *Programs*

The Computer Science Department offers a Bachelor of Science in Computer Science which is accredited by the Computing Accreditation Commission of ABET, [www.abet.org](http://www.abet.org). Alternatively, the Computer Science Department cooperates with the Department of Mathematics to offer a combined major, Mathematics/Computer Science, BS. The department also offers two minors – one in Computer Science and

one in Computer Systems. At the graduate level, the department offers a Master of Science in Computer Science.

Furthermore, a student could pursue an interdisciplinary minor in Internet Resource Creation and Management, and three certificate programs: Web Content Development, Web Programming, and E-commerce. This minor and the certificate programs are designed so that computer science majors, as well as non-computer science majors, may gain the technical and communication background necessary for developing, maintaining, and managing websites and resources.

#### *Declaring a Computer Science Major*

Students interested in majoring in computer science are advised to declare a pre-major as soon as possible, ideally during the first year or immediately upon transfer to Western. Once students complete both CSCI 241 and CSCI 247 then students can declare their major to be computer science. Students interested in computer science who have not yet declared as pre-majors or majors should seek the advice of the undergraduate advisor in Communications Facility 459. To graduate, a student must satisfy the requirements as stated in the catalog in effect at the time of declaration.

#### *Career Opportunities*

The United States Bureau of Labor Statistics projects that job growth in the coming decade for computer science is larger than all other areas of science combined. Graduates of Western's Computer Science Department are employed by industry giants such as Microsoft, Boeing, Google, Amazon and Adobe while others have gone on to work for small start-ups, government research labs, and several have started their own company. Our alumni create a rich network of contacts which current students often utilize to land paid internships and lucrative, challenging jobs right out of college. There is no shortage of exciting career opportunities available to graduates of Western's Computer Science Department.

#### *Internet Studies Center*

The Internet Studies Center (ISC) provides an adjunct program to a regular degree program. The center offers courses in website development and management that enable students to apply their major field in the world of web-based communications and enterprise. Students completing a sequence of these courses are eligible for certification. The courses follow three different tracks. Students from a wide variety of liberal arts and science majors pursue the Web Content Development track. This certifies that students have sufficient technical knowledge and skill to work effectively as web content producers in a development team where they must work with programmers and project managers to produce a professional website. The Web Programming certification track provides a deeper technical program for CS majors to master programming skills pertinent to content delivery in large, dynamic websites. Finally, the E-commerce certification track, offered in conjunction with the Finance, Marketing and Decision Sciences department of the College of Business and Economics, provides students with in-depth knowledge of large website management for e-commerce and other enterprise applications.

Those students interested in Web development but not seeking certification may take a set of courses that leads to a minor in internet resource creation and management. This minor complements degrees in disciplines outside computing, providing students with the ability to publish and maintain material on the World Wide Web. This minor will enhance students standing in applications to entry-level positions and helps increase the marketability of their major degree. The curriculum for this minor and all of the ISC-sponsored courses adapt to changes in internet technology as the internet evolves.

#### *Facilities*

The department has a number of laboratories that support the computer science program. The general purpose labs are used to support the teaching of first year classes and beyond. These labs contain modern dual-monitor desktop workstations running Windows 7 and Ubuntu Linux and have specialized software installed that is available nowhere else on campus. Additionally, there are special purpose labs and equipment

# COMPUTER SCIENCE

dedicated to support education and research in robotics, computer graphics, video games, real-time and embedded systems, multi-processor computing, computer security, data mining and information retrieval.

## *Advice to Freshman*

The core curriculum for the BS in Computer Science is arranged such that early courses are required as prerequisites for later courses. Thus, it is important to start the core computer science sequence and supporting mathematics and science courses as early as possible, since any substantial delay will result in the student needing more than four years to complete the degree.

## *Mid-Program Checkpoint*

The first two years of the computer science BS is based on the following courses:

CSCI 141, CSCI 145, CSCI 241, CSCI 247, MATH 124, MATH 125, MATH 204 and a supporting science sequence.

If these courses and all General University Requirements (GURs) are completed during the first two years, a student can complete the computer science BS in two additional years

## *Advice to Transfer Students*

Transfer students are very welcome to join the computer science program at Western. The following courses are not required of transfer students; however, if a student wants to complete the computer science degree in two additional years then the following courses should be taken before arriving at Western:

- All General University Requirements
- MATH 124, MATH 125, MATH 204
- Two programming courses in a high-level language (such as Ada, C#, Java, or C++)
- A year sequence chosen from BIOL 204, BIOL 205, BIOL 206; CHEM 121, CHEM 122, CHEM 123; PHYS 161, PHYS 162, PHYS 163; GEOL 211, GEOL 212, and one of GEOL 308, GEOL 309, GEOL 314, GEOL 315, GEOL 316, GEOL 340

Students should be aware that like-named 200-level community college courses may not transfer as equivalent.

## *Contact Information*

Department of Computer Science, Communication Facility 495, Western Washington University, Bellingham, WA 98225- 9165. Please direct questions to the departmental office: The phone is 360-650-3805, or correspond by e-mail to [cs.dept@wwu.edu](mailto:cs.dept@wwu.edu).

## *Advising*

Undergraduate Advisor: Located in CF 459. See [www.cs.wwu.edu](http://www.cs.wwu.edu) and click on the advising link.

## **Bachelor of Science**

### **Computer and Information Systems Security, BS**

Department of Computer Science, College of Sciences and Technology

#### **62 credits**

#### **Introduction/What is the Study of Computer and Information Systems Security?**

This is a joint academic program between Western Washington University (WWU) and Whatcom Community College (WCC), culminating in a baccalaureate degree in computer and information systems security. Students complete the first two years of the program at WCC, earning an Associate in Applied Science - Transfer

Degree in Cybersecurity. The final two years of the program at WWU enables them to complete the requirements for BS in Computer and Information Systems Security (CISS).

### Why Consider a Computer and Information Systems Security Major?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

- Completion of Associate in Applied Science Degree in Computer Information Systems from Whatcom Community College
- Completion of at least 91 quarter-system credits including the following courses: CIS 106, CIS 110, CIS 116, CIS 205, CIS 214, CIS 215, CIS 216, CIS 227, CIS 228, CIS 229, CS 140, CS 145, MATH 141, MATH 142, MATH 151, ENGL& 101, PHYS& 221, PHIL 130 and electives of 0-7 credits of any transferable college level courses numbered 100 or above
- Minimum GPA of 2.50

### Application Process

Priority consideration for admission will be given to applicants submitting all of the following requirements by the priority deadline:

- WWU Transfer Application submitted by the application deadline and \$55 non-refundable application fee: [http://admissions.wwu.edu/transfer/t\\_instructions.html](http://admissions.wwu.edu/transfer/t_instructions.html)
- Official transcripts from Whatcom Community College

### Major Declaration Process

Students will be declared majors upon admission acceptance. For further questions, please contact Mary Hall, WWU Computer Science Department, at [Mary.Hall@wwu.edu](mailto:Mary.Hall@wwu.edu) or (360) 650-2300.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

#### Required (24 credits)

- CISS 247 - Computer Systems I
- CISS 301 - Formal Languages and Functional Programming
- CISS 349 - Computer System Administration
- CISS 360 - Operating System Concepts
- CISS 461 - Computer Security
- CISS 495 - Computer Security Project

#### Support Courses (22 credits)

- ENG 302 - Introduction to Technical and Professional Writing
- ISTM 201 - Science Literacy
- MATH 125 - Calculus and Analytic Geometry II

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- MATH 341 - Probability and Statistical Inference
- PHYS 162 - Physics with Calculus II

CISS Electives (16 credits)

Select 4 courses from the following elective topics:

- CISS 346 - Secure Software Development
- CISS 421 - Computer Forensics
- CISS 422 - Dynamic Analysis of Software
- CISS 423 - Software Reverse Engineering
- CISS 464 - Penetration Testing
- CISS 469 - Advanced Network System Security
- CISS 478 - Cryptographic Techniques

## Computer Science, BS

Department of Computer Science, College of Sciences and Technology

### 94 credits from computer science and mathematics

#### Introduction/What is the Study of Computer Science?

The proliferation of desktop computers, laptop computers, mobile devices and networks is transforming the world rapidly and irreversibly. Search engines and social networking sites have provided information to and forged connections between people worldwide. Advances in areas such as the World Wide Web, robotics, video games, multicore computing, artificial intelligence and cyber security are obviously central to the discipline of computer science. However, other fields such as genetics, atomic physics, renewable energy, and health care depend upon computers for advancement as well. The increasing use of and reliance on computers in our modern technological society makes the study of computer science an exciting and challenging one.

Computer Science at Western is composed of core classes organized around the study of design and analysis techniques used to write software in various application domains along with details about the internal workings of computers and networks. Elective classes in areas such as artificial intelligence, mobile device programming, robotics, graphics, web programming, bioinformatics, computer security, and video game programming allow students to explore areas of individual interest.

#### Why Consider a Computer Science Major?

Computer science is an exciting, growing, challenging field that is critical to many aspects of everyday life. As a computer scientist you can make an impact on the advancement of medicine, clean energy, entertainment, communication for the disabled, climate research, and automotive technologies to name a few. For some, the most motivational aspect of being a computer scientist is being involved in creating the next great technology that will help people the world over.

Apart from the compelling work you can do is the fact that computer scientists are highly sought after and can attain lucrative jobs directly out of college.

Anyone who enjoys abstract thinking and problem solving would most certainly appreciate computer science because the discipline is not about more programming. It is about the ways we organize data, solve problems, discover applications, and build devices and associated software that are effective and easy to use.

#### Contact Information

##### Department Information

Communications Facility 495  
360-650-3805

##### CS Undergraduate Advisor

Mary Hall  
Communications Facility  
360-650-2300  
Mary.Hall@wwu.edu

##### Transfer Advisor

James Johnson  
Communications Facility 467  
360-650-3967  
James.Johnson@wwu.edu

### Sample Careers

Computational Scientist | Computer Engineer | Data Scientist | Database Administrator | Educator | Game Programmer | IT Consultant | Network Engineer | Project Manager | Research Analyst | Robotics Programmer | Software Engineer | Systems Administrator | Systems Analyst | Systems Engineer | Technical Writer | User Experience Designer | Web Developer

### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students interested in majoring in computer science are advised to declare a pre-major as soon as possible, ideally during the first year or immediately upon transfer to Western. Once students complete both CSCI 241 and CSCI 247 they can declare their major to be computer science. Students interested in computer science who have not yet declared as pre-majors or majors should seek the advice of the undergraduate advisor in Communications Facility 459. To graduate, a student must satisfy the requirements as stated in the catalog in effect at the time of declaration.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- CSCI 141 - Computer Programming I
- CSCI 145 - Computer Programming and Linear Data Structures
- CSCI 241 - Data Structures
- CSCI 247 - Computer Systems I
- CSCI 301 - Formal Languages and Functional Programming
- CSCI 305 - Analysis of Algorithms and Data Structures I
- CSCI 322 - Principles of Concurrent Programming
- CSCI 330 - Database Systems
- CSCI 345 - Object Oriented Design
- CSCI 352 - Unix Software Development
- CSCI 367 - Computer Networks I
- CSCI 405 - Analysis of Algorithms and Data Structures II
- CSCI 491 - Software Project Requirements Analysis
- CSCI 492 - Software Project Design
- CSCI 493 - Software Project Implementation
- CSCI 495 - Capstone Seminar
- MATH 124 - Calculus and Analytic Geometry I
- MATH 125 - Calculus and Analytic Geometry II
- MATH 204 - Elementary Linear Algebra
- MATH 341 - Probability and Statistical Inference
- 16 credits chosen from the following, of which a maximum of 4 credits may be from CSCI 400 projects:
  - CSCI 321 - Game Programming
  - CSCI 342 - Web Scripting
  - CSCI 343 - Programming Workshop
  - CSCI 347 - Computer Organization II
  - CSCI 351 - Windows Software Development



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- CSCI 372 - Robotics: Applications of Artificial Intelligence
- CSCI 380 - Numerical Computations
- CSCI 397 - Special Topics
- CSCI 400 - Independent Study
- CSCI 401 - Automata and Formal Language Theory
- CSCI 402 - Artificial Intelligence
- CSCI 404 - Natural Language Processing
- CSCI 410 - Programming Languages
- CSCI 412 - Mobile Device Programming
- CSCI 430 - Database Theory
- CSCI 442 - Advanced Web Programming in Java
- CSCI 450 - Compiler Theory and Design
- CSCI 460 - Operating Systems
- CSCI 461 - Computer Security
- CSCI 462 - OS Device Drivers
- CSCI 463 - Cyber Defense
- CSCI 467 - Computer Networks II
- CSCI 474 - Bioinformatics
- CSCI 480 - Computer Graphics
- CSCI 497 - Special Topics
- CSCI 515 - Parallel Computation
- CSCI 520 - Advanced Compiler Design
- CSCI 525 - Advanced Topics in Operating Systems
- CSCI 530 - Advanced Database Theory
- CSCI 571 - Machine Learning Algorithms
- CSCI 572 - Robotics
- CSCI 573 - Computational Linguistics
- CSCI 575 - Information Retrieval
- CSCI 577 - Data Mining
- CSCI 578 - Cryptography
- CSCI 580 - Advanced Computer Graphics
- CSCI 584 - Scientific Visualization
- CSCI 585 - Image Processing
- M/CS 335 - Linear Optimization
- M/CS 375 - Numerical Computation
- M/CS 435 - Nonlinear Optimization
- M/CS 475 - Numerical Analysis

**NOTE:** Undergraduate students may take 500-level courses only if they have a GPA of at least 3.0 and instructor permission

□ A science sequence chosen from:

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
  - BIOL 205 - Introduction to Cellular and Molecular Biology
  - BIOL 206 - Introduction to Organismal Biology
- or
- CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
- or

- GEOL 211 - Physical Geology
  - GEOL 212 - Historical Geology
- and one of:
- GEOL 308 - Earthquakes
  - GEOL 309 - Volcanology
  - GEOL 314 - Engineering Geology
  - GEOL 315 - Minerals, Energy and Society
  - GEOL 316 - Research in Marine Paleontology
  - GEOL 340 - Geological Oceanography
- or
- PHYS 161 - Physics with Calculus I
  - PHYS 162 - Physics with Calculus II
  - PHYS 163 - Physics with Calculus III

□ A minimum of 45 credits of mathematics and science content. This total includes 3 credits of mathematics content for CSCI 301 and 2 credits of mathematics content for CSCI 305. Select additional credits for mathematics or science content from the following. Courses taken to complete the mathematics and science content requirement may also be counted for credit in the Computer Science major.

ASTR 200-499

BIOL 200-499 (except BIOL 495, 496, 498)

CHEM 121, 122, 123 OR CHEM 125, 126, 225

CSCI 380

GEOL 200-499 (except GEOL 301, 401A, 401B)

M/CS 200-499

MATH 124 or equivalent

MATH 125 or equivalent

MATH 200-499 (except MATH 240, 245, 381, 382, 383, 419, 420, 483, 491)

PHYS 161

PHYS 162

PHYS 163

PHYS 200-499 (except PHYS 419)

## **Mathematics/Computer Science, BS (see Mathematics Department)**

Mathematics/Computer Science, BS (see Mathematics Department)

## **Master of Science**

### **Computer Science, Non-Thesis, MS**

*College of Sciences and Technology*

#### **Graduate Faculty**

**Awad, Ahmed**, PhD, computer security.

**Bover, David C.**, PhD, software engineering, software quality assurance, computer security.

**Fizzano, Perry**, PhD, algorithms, optimization, bioinformatics.

**Hearne, James W.**, PhD, artificial intelligence, computational science.

**Hutchinson, Brian**, PhD, natural language processing, machine learning.

**Johnson, James Lee**, PhD, database theory, probabilistic algorithms.

# COMPUTER SCIENCE

**Jusak, Debra S.**, PhD, distributed computing, middleware, embedded systems.

**Liu, Yudong**, PhD, natural language processing.

**Matthews, Geoffrey B.**, PhD, artificial intelligence, data mining, scientific visualization.

**Meehan, J. Michael**, PhD, parallel and distributed computing, programming languages, networks.

**Nelson, Philip A.**, PhD, parallel and distributed computing, compilers, computer networks.

**Zhang, Jianna J.**, PhD, AI, machine learning, robotics, natural language processing.

Program Advisor: Philip A. Nelson

Send e-mail related to the graduate program in computer science to [gradinfo.cs@wwu.edu](mailto:gradinfo.cs@wwu.edu). For further information concerning the program, consult the departmental website at [www.cs.wwu.edu](http://www.cs.wwu.edu).

## Goals

- To graduate students with a strong, in-depth background in computer science.
- To prepare students for PhD programs.
- To engage students in high quality research-oriented projects.

## Objectives

- To educate students in core concepts in computer science.
- To provide students with in depth knowledge, skills, and experiences in computer science.
- To focus on the applied aspects of computer science, especially real-world projects that use core concepts and expert knowledge of computer science.
- To provide students and faculty opportunities to engage in research in computer science.

## Prerequisites

Students who have completed an undergraduate degree and who meet the requirements of the Graduate School and who show evidence of superior scholarship are invited to apply for admission to the graduate program in computer science. Students may be admitted into the computer science master's degree program in one of three ways: full admit, full admit with prerequisite course work, and provisional admit. Students who have a sufficient background in computer science, i.e. an undergraduate degree in Computer Science, and who meet the general requirements of the Graduate School can be given a "full admit." Due to the nature of this field of study, it is often the case that students with an undergraduate degree in an area other than computer science seek admission to the graduate program in computer science. Such students usually require a number of prerequisite undergraduate courses before they can embark on their graduate studies. If they meet the other requirements of the Graduate School, such students can usually be given a "full admit with prerequisite course work." The student is admitted into the graduate program but is required to complete a number of undergraduate prerequisite courses. Other constraints may be placed on such admissions, such as a minimum acceptable grade(s) for the prerequisites and perhaps a time frame for completion of the prerequisites. The exact nature of the composition of the prerequisite course work will be determined on a case by case basis. In rare cases, students who do not meet the general requirements of the graduate school, for example do not have the required minimum GPA, can be given a "provisional admit" provided their background is such that it indicates a high probability of success in the program.

In case of provisional admission, the program advisor may interview the candidate individually and consider the following factors:

1. Related background knowledge and work experience
2. Classes taken since graduation
3. Reference letters
4. GRE scores

## Application Information

**Admission Deadlines:** **Fall**, April 15; **Winter**, October 1; **Spring**, February 1.

**TA Deadlines:** Same as admission deadlines. Application requirements and forms are available from the Graduate School website.

**Test scores:** GRE General Test. An applicant with an advanced degree need not submit test scores. A statement of purpose is recommended.

### Program Requirements (55-58 credits)

#### Core Curriculum

The core curriculum consists of five courses of 4 credits each.

- CSCI 509 - Operating System Internals
- CSCI 510 - Automata and Formal Language Theory
- CSCI 511 - Analysis of Algorithms
- CSCI 512 - Design and Implementation of Computer Programming Languages
- CSCI 514 - Research Methodology in Computer Science

These courses must be taken by all students in the MS in computer science program. These five courses should be scheduled during the first three terms the student is enrolled in the MS program or the first three terms following the completion of assigned prerequisite courses.

The following course *must* be taken by all students in each quarter the student is enrolled in the MS Computer Science program, up to a total of 6 credit hours.

- CSCI 590 - Graduate Seminar

#### **Qualifying Examination**

A qualifying exam covering CSCI 509, 510, 511, and 512 will be given to the student after completion of those courses. To be advanced to candidacy in the MS program in computer science the student must pass the qualifying exam. The student is responsible for requesting of the faculty that the qualifying exam be administered when the conditions have been met.

#### **Advancement to Candidacy**

Students are advanced to candidacy when they have demonstrated a reasonable likelihood of completing their program of study. The student must have completed the core curriculum courses with a B or better GPA and must have passed the qualifying exam. Students are recommended for candidacy by the Graduate Committee.

#### **Elective Courses**

If possible, the student should take elective courses in support of their area of research.

#### **Research Experience**

In addition to the five core courses and five elective courses, all students in the MS in computer science program are required to take three research experience courses. The student should register for one of these courses each of the last three terms of study in the MS program. The three research experience courses are tied to one of a number of ongoing projects in the computer science department. Effectively, the student is joining that research team effort by registering for these courses. As such, the student should discuss their intentions with the faculty members involved in that project prior to registering for these courses. The research experience courses are numbers CSCI 601, CSCI 602 and CSCI 603. The CSCI 601, CSCI 602 and CSCI 603 sequence should be taken after the student has completed the qualifying exam for the core courses.

#### **Total Credit Hours Required for the MS Degree in Computer Science**

Core Courses: 5 courses x 4 credits = 20 credits Graduate Seminar: Variable, 3 to 6 credit hours Elective Courses: 5 courses x 4 credits = 20 credits Research Experience Courses: 3 courses x 4 credits = 12 credits Total: 55-58 credits

# COMPUTER SCIENCE

## Additional Information

### **Five-Year BS And MS Fast Track Program**

For students who complete their undergraduate study in computer science at WWU there is an option by which at the end of only one additional year of study past the BS degree they will have completed all requirements for the MS degree. To participate in this program, a student must request enrollment in the undergraduate honors program in computer science. To be admitted to this program, the student must have an overall GPA of 3.0 and a GPA of 3.0 in all undergraduate computer science classes. Students should apply for admission into the undergraduate honors program during the junior year of study. Once admitted to this program, the student will take CSCI 509-512 while an undergraduate. These courses will substitute for four senior-level courses the student would normally take as an undergraduate. The course substitutions are: CSCI 509 replaces CSCI 460, CSCI 510 replaces CSCI 401, CSCI 511 replaces CSCI 405, CSCI 512 replaces CSCI 410. A student must maintain an overall GPA of 3.0 in these courses.

After students graduate with the BS degree in the computer science honors program, they then will complete all remaining requirements for the MS degree, i.e., CSCI 514, 590, 601, 602, 603 plus 5 graduate electives. Registering for three courses per term, it is possible to complete all MS requirements in only one additional year. When a student enters the MS program via this path, the qualifying exam will be given during their first term as a graduate student, which implies that they may register for CSCI 601 while pending the outcome of the qualifying exam.

## **Minor**

### **Computer Science Minor**

Department of Computer Science, College of Sciences and Technology

#### **34-35 credits**

#### **Introduction/What is the Study of Computer Science?**

#### **Why Consider a Computer Science Minor?**

#### Contact Information

#### Sample Careers

#### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### **How to Declare (Admission and Declaration Process):**

#### **Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- CSCI 141 - Computer Programming I
- CSCI 145 - Computer Programming and Linear Data Structures

- CSCI 241 - Data Structures
- CSCI 247 - Computer Systems I
- CSCI 301 - Formal Languages and Functional Programming
- CSCI 330 - Database Systems
  - One course from:
    - MATH 124 - Calculus and Analytic Geometry I
    - MATH 157 - Calculus With Applications to Business and Economics
  - One upper-division computer science or math/computer science course of at least 4 credit hours

## Computer Systems Minor

Department of Computer Science, College of Sciences and Technology

**29 credits**

### Introduction/What is the Study of Computer Systems?

### Why Consider a Computer Systems Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers.students\\_choosingamajor.shtml](http://www.wvu.edu/careers.students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- CSCI 145 - Computer Programming and Linear Data Structures
- CSCI 241 - Data Structures
- CSCI 247 - Computer Systems I
- CSCI 322 - Principles of Concurrent Programming
- CSCI 345 - Object Oriented Design
- CSCI 347 - Computer Organization II
- CSCI 352 - Unix Software Development
- CSCI 367 - Computer Networks I

## Internet Resource Creation and Management Minor

Department of Computer Science, College of Sciences and Technology

**28-29 credits**

## **Introduction/What is the Study of Internet Resource Creation and Management?**

### **Why Consider an Internet Resource and Creation Management Minor?**

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

#### **Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- CSCI 102 - Computer-Mediated Communications
- CSCI 202 - Dynamic Web Pages
- CSCI 403 - Internship in Internet Studies
- MIS 314 - Fundamentals of Web Site Development and Management
- COMM 318 - Professional Communication
- Choose Either:
  - ENG 302 - Introduction to Technical and Professional Writing
  - ENG 402 - Advanced Technical and Professional Writing
- or
- JOUR 207 - Newswriting
- JOUR 309 - Editing

### **User Experience (UX) Design Minor (see Engineering Technology Department)**

User Experience (UX) Design Minor (see Engineering Technology Department)

## **WWU Certificate (Non-Degree)**

### **Internet Studies Center Certification**

Department of Computer Science, College of Sciences and Technology

## **Introduction/What is the Study of Internet Studies?**

### **Why Consider a Certificate in Internet Studies?**

Contact Information

## Sample Careers

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):****Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- CSCI 202 - Dynamic Web Pages
- MIS 314 - Fundamentals of Web Site Development and Management
- One course from:
  - CSCI 102 - Computer-Mediated Communications
  - CSCI 112
- One course from:
  - CSCI 403 - Internship in Internet Studies
  - CSCI 494 - Professional Work Experience
- CSCI 403 allows students to obtain real-world experience while staying on campus; CSCI 494 allows students to work in intern positions in real companies on actual Website development.
- Certification requires a minimum of eight hours of content-oriented courses from the student's major, approved by center director. Courses currently approved include the following sequences:
  - COMM 244 - Advocacy Through Media
  - COMM 318 - Professional Communication
  - CSCI 242
  - CSCI 342 - Web Scripting
  - CSCI 442 - Advanced Web Programming in Java
  - ENG 302 - Introduction to Technical and Professional Writing
  - ENG 402 - Advanced Technical and Professional Writing
  - MIS 324 - Intermediate Web Site Development and Management
  - MIS 424 - E-Commerce Systems Management
  - MKTG — Any two marketing courses
- — Choose either:
  - JOUR 207 - Newswriting
  - JOUR 309 - Editing
  - or
  - JOUR 207
  - JOUR 305 - Photojournalism
  - JOUR 330 - Principles of Public Relations

Students whose major course of study does not include preapproved content-oriented courses are encouraged to consult with their major advisor and the director of the ISC to determine whether acceptable courses dealing with Internet technology are available.



## Computer Science Courses

### **CSCI 101 - Computers and Applications**

Study of computers, computer systems, and computer applications. Computer hardware and software fundamentals. Networking, telecommunications, and the Internet. Hands-on experience with a variety of standard computer applications. Computer-related social and ethical issues. Lab.

Credits: 4

### **CSCI 102 - Computer-Mediated Communications**

Internet skills, with an emphasis on the Internet as a medium of political and business communication, research, cultural exchange and worldwide collaboration. Basic principles of effective Web site organization and design. Lab.

**Prerequisites & Notes:** basic computer literacy

Credits: 3

GUR Attributes: BCOM

### **CSCI 103 - Introduction to Computer Game Development**

An introduction to computer game development for students with no programming background. Students use game development software to develop games of varying complexity, including graphics and sound, and extend to more complex games through the use of scripts.

**Prerequisites & Notes:** basic computer literacy, use of keyboard and mouse

Credits: 4

GUR Attributes: QSR

### **CSCI 104 - Software Installation, Operation and Configuration of Personal Computer Systems**

Overview of computer hardware components. Installing and configuring Windows operating system. Installing and configuring the Linux operating system. Open source software installation. Each student will receive a licensed copy of the current MS Windows operating system and all Microsoft Development Tools (language compilers etc.) which may be used on their own

personal computer.

Credits: 4

### **CSCI 120 - Exploring Computer Science**

Course exposes students to a variety of computer science problems and applications in a novel, fun, interesting and challenging fashion. Elementary programming skills, problem solving ability, and communications skills will be developed. Excellent course for those who have an interest in the field but no previous background.

**Prerequisites & Notes:** Permission of instructor.

Credits: 3

### **CSCI 138 - Programming Fundamentals in Visual Basic**

Intended for students wishing to acquire programming skills in connection with natural science or technology. Basic concepts of computer programming using the Visual Basic programming language. Topics include introduction to development environment, introduction to computer architecture, and language elements such as control structures, functions, basic I/O, one-dimensional and parallel arrays, text file I/O, and user-interface design. Emphasis on algorithm development, program solving, and software engineering. Programming is required in implementation of concepts. Lab.

**Prerequisites & Notes:** Math 112 or instructor permission.

Credits: 4

GUR Attributes: QSR

### **CSCI 139 - Programming Fundamentals in Python**

Intended for students wishing to acquire programming skills in connection with natural science or technology. Basic concepts of computer programming using the Python programming language. Topics include introduction to development environment, introduction to computer architecture, and language elements such as control structures, functions, basic I/O, one-dimensional and parallel arrays, text file I/O,

and user-interface design. Emphasis on algorithm development, program solving, and software engineering. Programming is required in implementation of concepts. Lab.

**Prerequisites & Notes:** Math 112 or instructor permission.

Credits: 4

GUR Attributes: QSR

### **CSCI 140 - Programming Fundamentals in C++**

Intended for students wishing to acquire programming skills in connection with a natural science or technology. Basic concepts of computer programming using the C++ programming language. Topics covered: introduction to computer architecture, and elements of a language such as control structures, functions, basic I/O, one dimensional and parallel arrays, text file I/O. Algorithm development, problem solving and software engineering are emphasized. Programming is required in implementation of concepts. Lab.

**Prerequisites & Notes:** MATH 112 or instructor permission.

Credits: 4

GUR Attributes: QSR

### **CSCI 141 - Computer Programming I**

Intended for students majoring in computer science. Basic concepts of computer programming using an object oriented programming language. Topics covered: introduction to the development environment, introduction to algorithms, elements of a programming language, including data types, packages, control structures, procedures and functions, basic input and output, arrays and records, text files, strings, variant records. Algorithm development, problem solving and software engineering are emphasized. Programming is required in implementation of concepts. Lab.

**Prerequisites & Notes:** One of: MATH 112, MATH 114, MATH 115, MATH 118, MATH 124, MATH 125, MATH 128, MATH 156

Credits: 4

GUR Attributes: QSR

### **CSCI 145 - Computer Programming and Linear Data Structures**

Abstract data types, generics, access or pointer types, dynamic memory allocation, recursion, concurrent programming and linear data structures, including stacks, lists and queues. Programming is required in implementation of concepts. Lab.

**Prerequisites & Notes:** CSCI 141 or equivalent; any of : MATH 115, MATH 118, MATH 124

Credits: 4

GUR Attributes: QSR

### **CSCI 172 - Introduction to Robotics**

This course provides an introduction to robotics for students with no programming background. Lego Mindstorms Team Challenge Set is used to build the robots. Students will learn to construct, control and program these robots. Students will gain first-hand experience in quantitative and symbolic reasoning through the course of learning.

Credits: 4

GUR Attributes: QSR

### **CSCI 202 - Dynamic Web Pages**

Principles and technologies required to produce and distribute Internet ( World Wide Web) content, with a focus on site architecture and client-side dynamic pages; an introduction to server-side processing.

**Prerequisites & Notes:** CSCI 102 or permission of instructor.

Credits: 4

### **CSCI 241 - Data Structures**

Design and implementation of hash tables, general trees, search trees, balanced trees and graphs. Comparison of sorting algorithms. Demonstration of the use of data structures in various applications. Evaluation of the best data structure for a particular task. Programming is required in implementation of concepts.

**Prerequisites & Notes:** CSCI 145; MATH 124 or MATH 157.

Credits: 4

### **CSCI 247 - Computer Systems I**

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An overview of basic computer organization and design. Introduction to C programming. Topics covered include data representation, boolean algebra, machine language, instruction sets, processor architecture, multi-processors, system-level I/O, pipelining, and the memory hierarchy. Includes lab.

**Prerequisites & Notes:** CSCI 145.  
Credits: 5

## **CSCI 301 - Formal Languages and Functional Programming**

Introduction to discrete structures important to computer science, including sets, trees, functions, and relations. Proof techniques. Introduction to the formal language classes and their machines, including regular languages and finite automata, context free languages and pushdown automata. Turing machines and computability will be introduced. Programming using a functional language is required in the implementation of concepts. Includes lab.

**Prerequisites & Notes:** CSCI 145.  
Credits: 5

## **CSCI 302 - Adv Internet Resources w/lab**

Introduction to discrete structures important to computer science, including sets, trees, functions, and relations. Proof techniques. Introduction to the formal language classes and their machines, including regular languages and finite automata, context free languages and pushdown automata. Turing machines and computability will be introduced. Programming using a functional language is required in the implementation of concepts. Includes lab.

**Prerequisites & Notes:** CSCI 202 or equivalent  
Credits: 4

## **CSCI 305 - Analysis of Algorithms and Data Structures I**

Introduction to the analysis of algorithms and data structures in a mathematically rigorous fashion. Mathematical fundamentals, counting, discrete probability, asymptotic notation, recurrences, loop invariants. Worst-case, probabilistic and amortized analysis techniques applied to sorting algorithms and classic data structures such as heaps, trees

and hash tables. Design techniques such as branch and bound, divide and conquer, will be introduced as will correctness proofs for algorithms.

**Prerequisites & Notes:** CSCI 241; CSCI 301.  
Credits: 4

## **CSCI 321 - Game Programming**

Introduction to the basics of game design and implementation. Game worlds, storytelling, character development and the user experience. Programming audio, 2D and 3D graphics basics. Networking basics. Game artificial intelligence. Game genres: action, strategy, role-playing, sports, vehicles, simulations, adventure.

**Prerequisites & Notes:** CSCI 241.  
Credits: 4

## **CSCI 322 - Principles of Concurrent Programming**

Principles of concurrent programming. Algorithms for mutual exclusion. Synchronization and communication techniques: semaphores; monitors; rendezvous; conditional critical regions. Multi-process and multi-threaded programming. Concurrent programming facilities in HLL's.

**Prerequisites & Notes:** CSCI 247.  
Credits: 4

## **CSCI 330 - Database Systems**

An introduction to the underlying data models and theory of database systems and the design, implementation and manipulation of relational databases.

**Prerequisites & Notes:** CSCI 241  
Credits: 4

## **CSCI 342 - Web Scripting**

For CSCI majors and nonmajors seeking Web programmer certification from the Internet Studies Center. Development of dynamic Web applications. Study of various server-side scripting languages (PHP, Perl, Python, Ruby on Rails) for creating dynamic Web pages and querying and manipulating Databases on the Web.

**Prerequisites & Notes:** CSCI 330.

Credits: 4

### **CSCI 343 - Programming Workshop**

A review of standard algorithmic techniques and practice in their rapid application to information processing problems, especially in a team setting. Preparation for participation in regional and national programming competition. May be repeated once for credit.

**Prerequisites & Notes:** CSCI 345.

Credits: 1

### **CSCI 345 - Object Oriented Design**

Introduction to Object-Oriented Software Design, including concepts of encapsulation, modularity, coupling and cohesion. Use of Unified Modeling Language (UML) in design documentation. Introduction to the concept of design patterns and exposure to some commonly used design patterns.

**Prerequisites & Notes:** CSCI 241

Credits: 4

### **CSCI 347 - Computer Organization II**

Pentium assembly language programming, interfacing assembly language programs to high-level languages, memory design, cache memory, virtual memory, I/O interfacing and communication, interrupts.

**Prerequisites & Notes:** CSCI 227 or ETEC 273; CSCI 241

Credits: 3

### **CSCI 351 - Windows Software Development**

The design and development of event driven programming using Visual C#.NET. Use of .NET Framework libraries. Creation of Windows based applications using forms, controls, and GDI+. Design of graphical user interfaces and Visual Studio development tools. Working with LINQ and Windows Presentation Foundation (WPF). Programming using XAML. Study of XML Schema Documents, Extensible Stylesheet Language and XSL Transformations.

**Prerequisites & Notes:** CSCI 345

Credits: 4

### **CSCI 352 - Unix Software Development**

The design and development of systems and programs in the Unix environment. Unix operating system fundamental concepts. Unix standards and implementations. System data files. Environment of a Unix process. Unix programming at the system call level. File and terminal I/O, processes, interprocesses communication and signals. Introduction to shell programming, standard Unix development tools and system utilities: awk, m4, cc, lint, make, sed, grep, and others.

**Prerequisites & Notes:** CSCI 241 and CSCI 247

Credits: 4

### **CSCI 367 - Computer Networks I**

Introduction to computer networks; network architecture and design; protocols, management, physical networks; implementation of network protocols, programming projects in protocol usage and applications.

**Prerequisites & Notes:** CSCI 241 and CSCI 247

Credits: 4

### **CSCI 372 - Robotics: Applications of Artificial Intelligence**

Basic robot design, RobotC programming, reinforcement learning, genetic algorithms, and artificial neural network concepts will be covered. Course is designed for undergraduate students who are interested in robotics and artificial intelligence applications. Students who have previous robotics and/or programming experience are encouraged to take this course.

**Prerequisites & Notes:** Permission of Instructor.

Credits: 4

### **CSCI 380 - Numerical Computations**

Computer arithmetic and error analysis, roots of nonlinear equations, solution of system of linear and nonlinear equations, numerical differentiation, numerical quadrature, approximation theory, initial and boundary value problems.

**Prerequisites & Notes:** CSCI 241, MATH 204

Credits: 4

### **CSCI 401 - Automata and Formal Language Theory**

# COMPUTER SCIENCE

Introduction to advanced topics in formal language and automata theory. Turing machines and other language classes including context-sensitive grammars and unrestricted grammars. Practical applications of formal languages will be introduced.

**Prerequisites & Notes:** CSCI 301.  
Credits: 4

## **CSCI 402 - Artificial Intelligence**

Introduction to knowledge representation and search. Possible application areas include natural language, perception, learning and expert systems.

**Prerequisites & Notes:** CSCI 301  
Credits: 4

## **CSCI 403 - Internship in Internet Studies**

Supervised and fully documented Web-based project with an approved business, government agency or not-for-profit organization.

**Prerequisites & Notes:** Only for ISC minors, or students seeking ISC certification. CSCI 202, MIS 314, senior status and permission of instructor; minimum GPA of 2.7.  
Credits: 3

## **CSCI 404 - Natural Language Processing**

Fundamental concepts and ideas in natural language processing (NLP), and current research in the area; algorithms available for the processing of linguistic information and the underlying computational properties of natural languages. Word level, syntactic, and semantic processing from both a linguistic and an algorithmic perspective are considered. The focus is on modern quantitative techniques in NLP: using large corpora, including the web, statistical models for acquisition, disambiguation, and parsing.

**Prerequisites & Notes:** CSCI 301 or Junior status in Linguistics  
Credits: 4

## **CSCI 405 - Analysis of Algorithms and Data Structures II**

Derivation of time and space complexity of algorithms. Typical algorithms investigated include minimum spanning tree, shortest path, network flow and string matching. Advanced treatment of

dynamic programming, greedy algorithms and randomized algorithms. Discussion of NP-Completeness. Correctness proofs of algorithms.

**Prerequisites & Notes:** CSCI 305  
Credits: 4

## **CSCI 410 - Programming Languages**

Introduction to the structure of programming languages; syntax and semantics; properties of algorithmic languages; special purpose languages.

**Prerequisites & Notes:** CSCI 301.  
Credits: 4

## **CSCI 412 - Mobile Device Programming**

Design and development of applications for the mobile environment. Android platform, tools for Android development, UI design, mobile application distribution systems.

**Prerequisites & Notes:** CSCI 330 and CSCI 367  
Credits: 4

## **CSCI 430 - Database Theory**

Data models and their access languages. Design issues: ER diagrams, functional dependency analysis and normalization. Database programming.

**Prerequisites & Notes:** CSCI 301 and CSCI 330.  
Credits: 4

## **CSCI 442 - Advanced Web Programming in Java**

For CSCI majors and nonmajors seeking Web programming certification from the Internet Studies Center. Advanced network, applet, and server applications in Java. GUIs, Web spiders and Web search algorithms, security, remote method invocation and Java Beans.

**Prerequisites & Notes:** CSCI 342; CSCI 351 recommended.  
Credits: 4

## **CSCI 450 - Compiler Theory and Design**

Theory and practice of compiler design. Emphasis is on basic theory and methods necessary to design and implement a functional syntax directed compiler.

**Prerequisites & Notes:** CSCI 301  
Credits: 4

### **CSCI 460 - Operating Systems**

Principles of operating systems; concurrent processes; resource management; process management; file systems; protection.

**Prerequisites & Notes:** CSCI 322 and CSCI 352  
Credits: 4

### **CSCI 461 - Computer Security**

An overview of computer security and detailed study of the theoretical foundations and practical implementations of some aspects of security, including policy specification, the role of cryptography, policy implementation and assurance, security threats and counter-measures.

**Prerequisites & Notes:** CSCI 301; CSCI 367 is recommended.  
Credits: 4

### **CSCI 462 - OS Device Drivers**

Operating System kernel programming, system call mechanisms, system call processing, file system internals, device drivers, interrupt processing, methods for controlling hardware from software. Includes study and augmentation of real Operating Systems, both open-source and closed-source.

**Prerequisites & Notes:** CSCI 460.  
Credits: 4

### **CSCI 463 - Cyber Defense**

Seminars and practical exercises to prepare students for the Collegiate Cyber Defense Competition. Repeatable up to 3 credits.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 1  
Grade Mode: S/U

### **CSCI 467 - Computer Networks II**

Advanced computer networks. Applications including Internet and distributed computing.

**Prerequisites & Notes:** CSCI 367  
Credits: 4

### **CSCI 474 - Bioinformatics**

Interdisciplinary view of Bioinformatics is presented in a seminar style. Sequence alignment, scripting languages, databases, phylogenetics, genomics, proteomics and select advanced topics are covered from a variety of disciplinary perspectives. Students give presentations and participate in a significant group project. Intended for juniors and seniors in CSCI, BIOL, MATH, CHEM who have some relevant course experience and interest in this emerging discipline.

**Prerequisites & Notes:** Permission of Instructor.  
Credits: 4

### **CSCI 480 - Computer Graphics**

Overview of the hardware, software, and techniques used in computer graphics; raster display devices; input devices; display files, 2D and 3D transformations; windowing, clipping; simple surface rendering.

**Prerequisites & Notes:** CSCI 241 and MATH 204  
Credits: 4

### **CSCI 491 - Software Project Requirements Analysis**

Software development life-cycle, project management, requirements analysis, prototyping. Students work in teams performing requirements analysis of a substantial project, culminating in a requirements specification document.

**Prerequisites & Notes:** Department permission  
Credits: 3

### **CSCI 492 - Software Project Design**

Software design methodologies, object-oriented design with UML, design patterns, test planning. Students work in teams to produce a software design document, based on requirements specification produced in CSCI 491.

**Prerequisites & Notes:** Department permission  
Credits: 3

### **CSCI 493 - Software Project Implementation**

Software implementation; unit, integration and system acceptance tests; user documentation. Students work in teams to produce a final software product, fully tested with user documentation,

## COMPUTER SCIENCE

based on a requirements specification produced in CSCI 491 and a software design produced in CSCI 492.

**Prerequisites & Notes:** Department permission  
Credits: 3

### **CSCI 494 - Professional Work Experience**

Academic credit awarded for employment in industry. Students are required to keep a journal and to submit a written report. See Department of Computer Science for information. S/U grading.

**Prerequisites & Notes:** 30 credits in CSCI;  
minimum 2.7 GPA; department permission.  
Credits: 4  
Grade Mode: S/U

### **CSCI 495 - Capstone Seminar**

This course consists of a ten week review of the required undergraduate program in Computer Science, culminating in the Major Field Test which is required of all Computer Science Majors.

**Prerequisites & Notes:** Final quarter in the Computer Science major.  
Credits: 1

### **CSCI 498 - Teaching Practicum**

Classroom experience in computer science teaching. Students will assist faculty in laboratory settings. Repeatable for a maximum of 4 cr.

**Prerequisites & Notes:** Senior status and permission of department.  
Credits: 2

### **CSCI 509 - Operating System Internals**

An intensive study of operating systems through examination of and experimentation with kernel source code for a modern open-source operating system. Aspects of operating systems to be investigated include process management, resource management, memory allocation, file systems and kernel services.

**Prerequisites & Notes:** CSCI 322, CSCI 352, CSCI 367  
Credits: 4

### **CSCI 510 - Automata and Formal Language Theory**

Advanced treatment of formal languages and automata; finite state machines; stack machines and Turing Machines; the Chomsky hierarchy; regular, context free, context sensitive languages, recursively enumerable languages.

**Prerequisites & Notes:** CSCI 301 or equivalent  
Credits: 4

### **CSCI 511 - Analysis of Algorithms**

Systematic study of algorithms and their complexity, searching and sorting, pattern matching, geometric and graph algorithms, NP-complete and intractable problems.

**Prerequisites & Notes:** CSCI 305  
Credits: 4

### **CSCI 512 - Design and Implementation of Computer Programming Languages**

Evaluation of programming language features, classification of programming languages in terms of expressiveness, complexity, uniformity and orthogonality. Cost of implementing and using programming language in view of compilation and run-time environments. Mapping of programming language features onto computer architectures. Alternative programming methodologies: functional paradigm, imperative programming, logic programming, data flow programming, explicit and implicit concurrency models.

**Prerequisites & Notes:** CSCI 510.  
Credits: 4

### **CSCI 513 - Systems Programming and Operating Systems Internals**

Systems software such as linkers, loaders, system utility software and operating system internals. Investigation of real operating systems, augmentation or modification of the operating system source code. Process creation and management; interprocess communication; process scheduling; I/O hardware and software; memory management; file system design and implementation; security and protection mechanisms.

**Prerequisites & Notes:** CSCI 352 or CSCI 460.

Credits: 4

**CSCI 514 - Research Methodology in Computer Science**

Research methodology topics identified as appropriate, emphasizing basic and applied research skills. This course will have research as its primary focus and will be taught by persons with research competencies and interests. Course content includes preparation of research studies, reports, and papers. Students are expected to generate a research or survey paper on their own research topic as a final project.

**Prerequisites & Notes:** Graduate Status.  
Credits: 4

**CSCI 515 - Parallel Computation**

Topics in concurrent and parallel computation. Possible areas include formal specification methods for parallel systems, semantics and verification of parallel language programs, and analysis and implementation of parallel algorithms.

**Prerequisites & Notes:** CSCI 510.  
Credits: 4

**CSCI 520 - Advanced Compiler Design**

Theory and practice of compiler design. Detailed consideration of efficient parsing techniques; organization of semantic analysis and code generation phases; machine dependent and independent optimization techniques; organization of run time environment.

**Prerequisites & Notes:** CSCI 510.  
Credits: 4

**CSCI 525 - Advanced Topics in Operating Systems**

Various topics as they relate to distributed operating systems. Case study using a distributed operating system to perform experiments in class laboratory.

**Prerequisites & Notes:** CSCI 460 or CSCI 513.  
Credits: 4

**CSCI 527 - Embedded Systems**

Design and development of embedded microprocessors in instrumentation, controls, and

user appliances.

**Prerequisites & Notes:** CSCI 509  
Credits: 4

**CSCI 530 - Advanced Database Theory**

Advanced topics in database systems. Possible areas include transaction processing, concurrency control, recovery, security, query optimization, distributed systems, and logic-based systems.

**Prerequisites & Notes:** CSCI 430 or equivalent  
Credits: 4

**CSCI 570 - Artificial Intelligence**

Advanced topics in artificial intelligence. Possible areas include knowledge representation, LISP or PROLOG, search strategies, heuristics, goal refinement, theorem proving, and symbolic problem solving.

**Prerequisites & Notes:** Graduate student status or instructor permission.  
Credits: 4

**CSCI 571 - Machine Learning Algorithms**

Covers important machine learning research areas such as artificial neural nets, Bayesian learning, data mining, decision tree learning, evolutionary computation, reinforcement learning, version space learning, rough sets, and computational learning theory. Algorithms from these research areas will be analyzed. Each student will select one of the learned algorithms and apply it to the term project.

**Prerequisites & Notes:** Graduate status.  
Credits: 4

**CSCI 572 - Robotics**

The materials of this class cover from hardware to software according to students' need and available instructors. Each offer of the class will select one of the two (hardware and software) research areas or a combination of them. The syllabus includes, but is not limited to, architectures, navigation, and motion planning, control, vision, synthesizing, and algorithm design. Students will gain firsthand experience by working on a small robot. They will design algorithms or manipulate the hardware to make the robot do or learn a certain task.



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**Prerequisites & Notes:** Graduate status.  
Credits: 4

## **CSCI 573 - Computational Linguistics**

Formal and computational models of the syntax, semantics and pragmatics of natural languages; rival approaches to semantic and pragmatic representation; applications to database queries and machine translation.

**Prerequisites & Notes:** CSCI 401 or CSCI 510.  
Credits: 4

## **CSCI 575 - Information Retrieval**

Index construction, vector space model, evaluation of relevance in IR systems, text classification, clustering, machine learning approaches to IR, applications to web search, current research topics.

**Prerequisites & Notes:** CSCI 511  
Credits: 4

## **CSCI 577 - Data Mining**

Techniques for extracting useful information from large data sets; attribute-value learning techniques (decision trees, association rules); relational mining techniques (inductive logic programming, efficient search of relational spaces); probabilistic techniques (Bayesian networks, conditional independence); statistical techniques; sampling strategies; applications in bioinformatics, personalization, information retrieval, web modeling, filtering, and text processing.

**Prerequisites & Notes:** CSCI 510, CSCI 511  
Credits: 4

## **CSCI 578 - Cryptography**

Selected topics from number theory; simple, homophonic, polyalphabetic substitution ciphers; product ciphers, DES; exponentiation ciphers; knapsack ciphers; key management.

**Prerequisites & Notes:** CSCI 509.  
Credits: 4

## **CSCI 580 - Advanced Computer Graphics**

Three-dimensional concepts, shading techniques, curves and surfaces, ray tracing, radiosity, texture mapping, fractals.

**Prerequisites & Notes:** CSCI 480 or equivalent  
Credits: 4

## **CSCI 584 - Scientific Visualization**

Introduction to the computer display of scientific datasets. Topics include visualizing 2D and 3D scalar and vector fields, visualizing nonlinear relationships, and user interface design.

**Prerequisites & Notes:** CSCI 480 or equivalent  
Credits: 4

## **CSCI 585 - Image Processing**

Digital image fundamentals, image transforms, image enhancements, image restoration, image encoding, representation and description, color image processing, morphological operations.

**Prerequisites & Notes:** CSCI 480.  
Credits: 4

## **CSCI 590 - Graduate Seminar**

Students are expected to present and discuss state-of-the-art computer science research papers in various topics. All graduate students must present their MS research in this class before graduation. External speakers may be invited. The objectives are to expose students to a wide range of state-of-the-art research topics and to provide opportunities for students to share research experiences. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** Graduate student status.  
Credits: 1  
Grade Mode: S/U

## **CSCI 601 - Area of Specialization Research Experience I**

Work on ongoing research project. Credit given when CS 601, 602 and 603 completed. S/U grading.

Credits: 4  
Grade Mode: S/U

## **CSCI 602 - Area of Specialization Research Experience II**

Work on ongoing research project. Credit given when CS 601, 602 and 603 completed. S/U grading.

**Prerequisites & Notes:** CSCI 601  
Credits: 4  
Grade Mode: S/U

**CSCI 603 - Area of Specialization Research Experience III**

Work on ongoing research project. S/U grading.

**Prerequisites & Notes:** CSCI 601, CSCI 602  
Credits: 4  
Grade Mode: S/U

## Computer & Information Systems Security Courses

**CISS 247 - Computer Systems I**

An overview of basic computer organization and design. Introduction to C programming. Topics covered include data representation, boolean algebra, machine language, instruction sets, processor architecture, multi-processors, system-level I/O, pipelining, and the memory hierarchy. Includes lab.

**Prerequisites & Notes:** CSCI 145  
Credits: 5

**CISS 301 - Formal Languages and Functional Programming**

Introduction to discrete structures important to computer science, including sets, trees, functions, and relations. Proof techniques. Introduction to the formal language classes and their machines, including regular languages and finite automata, context free languages and pushdown automata. Turing machines and computability will be introduced. Programming using a functional language is required in the implementation of concepts. Includes lab.

**Prerequisites & Notes:** CSCI 145  
Credits: 5

**CISS 346 - Secure Software Development**

Techniques, methodologies and processes for development of robust, secure software. Security development process, threat modeling, common software vulnerabilities, web site vulnerabilities, defensive coding practices, security testing.

**Prerequisites & Notes:** CISS 247  
Credits: 4

**CISS 349 - Computer System Administration**

A study of the tasks, tools and techniques involved in the configuration and administration of heterogeneous networks of Windows and UNIX/Linux computers, with particular emphasis on system hardening, protection against attack, system monitoring and recovery.

**Prerequisites & Notes:** CISS 247  
Credits: 4

**CISS 360 - Operating System Concepts**

A study of the principles and techniques employed in modern computer operating systems. The emphasis is on process and thread creation, management and scheduling; system calls; memory management, virtual memory and paging; file system implementation, input/output systems and device management.

**Prerequisites & Notes:** CISS 247  
Credits: 3

**CISS 421 - Computer Forensics**

Computer security incident response. Investigation of security breaches of computer network, identification of causes and vulnerabilities. Recovery of data from memory dumps. Recovery of damaged file systems.

**Prerequisites & Notes:** CISS 461  
Credits: 4

**CISS 422 - Dynamic Analysis of Software**

Tools and techniques for the investigation of suspect software by running it and watching its effect. Establishing a safe work environment, monitoring system behavior, network monitoring, file system monitoring, event reconstruction.

**Prerequisites & Notes:** CISS 247  
Credits: 4

**CISS 423 - Software Reverse Engineering**

Tools and techniques for the static analysis of software by disassembly of executable code. De-obfuscation and decoding techniques.

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**Prerequisites & Notes:** CISS 247

Credits: 4

## **CISS 461 - Computer Security**

An overview of computer security and detailed study of the theoretical foundations and practical implementations of some aspects of security, including policy specification, the role of cryptography, policy implementation and assurance, security threats and counter-measures.

**Prerequisites & Notes:** CISS 301

Credits: 4

## **CISS 464 - Penetration Testing**

Tools and techniques for penetration testing of application software and computer systems, with the aim of identifying vulnerabilities for remedial action. Understanding common vulnerabilities, selection and trial of exploits, shellcode. Wireless penetration techniques.

**Prerequisites & Notes:** CISS 461

Credits: 4

## **CISS 469 - Advanced Network System Security**

Discussion of current topics security aspects of industrial control, SCADA systems, cloud computing, mobile devices.

**Prerequisites & Notes:** CISS 360

Credits: 4

## **CISS 478 - Cryptographic Techniques**

A study of the cryptographic techniques and tools commonly used in support of security for computer systems and networks.

**Prerequisites & Notes:** CISS 301

Credits: 4

## **CISS 495 - Computer Security Project**

A capstone team-based project to enable students to apply the skills and knowledge attained during the program to real, significant industry-based applications.

**Prerequisites & Notes:** CISS 461

Credits: 3

# Engineering Technology

## Introduction

The Department of Engineering Technology offers Bachelor of Science degree programs that prepare graduates for technical and professional careers in industry. Each program offers a unique mix of theoretical course work and laboratory exercises where students apply the theory learned in lectures to solve practical problems and experience industrial applications of technology. Creativity is encouraged and emphasized. In addition, Western's General University Requirements (GURs) provide graduates with a solid foundation in communication skills and contribute to a liberal education.

The programs are:

- Electronics Engineering Technology
- Manufacturing Engineering Technology
- Manufacturing Engineering Technology - Computer Aided Design and Manufacturing
- Plastics Engineering Technology
- Plastics Engineering Technology - Vehicle Engineering Technology (In Moratorium)
- Industrial Design
- Industrial Technology - Vehicle Design

Engineering technology is a profession in which knowledge of mathematics and natural sciences, technical experience and practice are used to plan, design, create and enhance technologies that benefit humanity. Graduates are employed by major technological and industrial companies, including regional operations such as Boeing, PACCAR, Alpha Technologies, Cypress Semiconductor, Nike, and Korry Electronics. Career opportunities range across the technological spectrum but graduates are best suited to areas that deal with application, manufacturing, implementation, engineering operations and production.

Students planning to major in any engineering technology program are encouraged to have a solid foundation in mathematics, chemistry and physics. Students planning to major in Industrial Design are also encouraged to have a sound background in art and design.

## Faculty

**JEFFREY L. NEWCOMER** (1998) Chair and Professor. BS, MEng, MS, PhD (mechanical engineering), Rensselaer Polytechnic Institute.

**TANVEER CHAWLA** (2013) Assistant Professor. BE, Gulbarga University; MSME, Wayne State University; PhD (mechanical engineering), University of North Dakota.

**NICOLE HOEKSTRA** (1998) Professor. BSME, MSME, University of Minnesota, Institute of Technology.

**KATHLEEN L. KITTO** (1988) Professor, Special Assistant to the Provost for Strategic Initiatives, Acting Vice Provost for Research and Dean of the Graduate School. BS, MSME, Montana College of Mineral Science and Technology.

**NICOLE M. LARSON** (2005) Associate Professor. BSME, Bradley University; MSME, University of Washington.

**ERIC C. LEONHARDT** (2002) Associate Professor. BA, Whitman College; BS, Western Washington University; MS (automotive systems engineering), University of Michigan.

**YING LIN** (2010) Assistant Professor. BSEE, MSEE, Harbin Institute of Technology; MS (applied statistics), PhD (electrical engineering), Syracuse University.

**JOHN LUND** (2013) Assistant Professor. BS, Washington State University; MSEE, PhD (electrical engineering), University of Washington.

**JASON A. MORRIS** (2004) Associate Professor. BSME, West Virginia University; MID, Pratt Institute.

**TODD MORTON** (1988) Professor. BSEE, MSEE, University of Washington.

**ARUNAS P. OSLAPAS** (1991) Professor. BFA, Montana State University; MFA, University of Illinois.

**DEREK M. YIP-HOI** (2006) Associate Professor. BSME, University of the West Indies; MSME, State University of New York-Buffalo; PhD (mechanical engineering), University of Michigan.

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**JEFF R. WRIGHT** (2011) Professor and Dean of College of Sciences and Technology. BA/BSE, MSE, University of Washington; PhD, The John Hopkins University.

## ***Instructors***

**MICHAEL J. FLAHERTY** (1998) BEd, MEd, Western Washington University.

**INDLE G. KING** (1987). BA, MA, University of Washington.

## **Other Departmental Information**

### *Advising and Declaration of Major*

Students who intend to complete one of the majors should immediately obtain advisement from a department advisor to declare their pre-major and plan a program of study. Because engineering technology programs require long course sequences with strong prerequisite structures, both freshmen and transfer students should begin their studies within the department in their first year at Western. Students should start immediately fulfilling the math and science requirements of the program.

### *Vehicle Design Post-Baccalaureate*

A post-baccalaureate professional development certificate program in vehicle design is offered for students who already have an undergraduate degree in engineering. The three quarter lockstep program begins fall quarter, is self-supporting and has a different tuition rate. Students interested in the post-baccalaureate program need to be referred by the program coordinator of the Industrial Technology - Vehicle Design program. Upon referral, students should complete the Extension Undergraduate Application. Extension admission and registration information is available from Extended Education, 360-650-3308.

### *Academic Standards*

Students are expected to follow all prerequisite requirements for courses and seek early departmental advisement. A grade of C- or higher is required to pass all engineering technology program requirements and all prerequisites for those courses. Students are required to drop any major class if they receive a K grade or a D+ or lower grade in the prerequisite class.

Students may request a program course exception (any grade lower than a C- in a required program course is always considered a program exception). To make a request, a student must submit an Exception Request Form for consideration by the Engineering Technology Curriculum Committee. The form can be found in the student information section of the Engineering Technology Department website <http://www.etc.wvu.edu/>. In the exception request, a student must clearly and thoroughly state their request and provide a detailed explanation why the exception is being requested and why it is appropriate. The form is then submitted to their department faculty advisor who must add their comments and recommendation before forwarding the form to the committee. Students should expect that the Curriculum Committee will need ample time to consider the request; deadlines are listed on the form.

## **Bachelor of Science**

### **Electronics Engineering Technology, BS**

Department of Engineering Technology, College of Sciences and Technology

#### **134-139 credits**

#### **Introduction/What is the Study of Electronics Engineering Technology?**

The Electronics Engineering Technology program prepares engineering technologists who understand and can apply established scientific and engineering knowledge and methods in combination with technical skills of modern technology to support engineering activities. Students are provided with a strong concentration of

both classroom instruction and practical hands-on laboratory design and testing experiences. Graduates are qualified for application positions in electronic systems analysis and design, product design and development, technical sales and service, and field engineering operations and maintenance.

### Why Consider an Electronics Engineering Technology Major?

An Electronics Engineering Technology (EET) graduate will work in the electronics field in positions such as engineering applications, embedded systems, electronic systems analysis, design and development, applications, test engineering, and technical sales and service. As a four-year engineering technology program the emphasis is on hands-on applications using parts, instrumentation and processes found in industry. It is a general electronics program that includes analog, digital, and microprocessor-based hardware and software analysis and design. An EET student should have a strong background in math, physics, and communication skills to be prepared for both technical and professional challenges.

The Electronics Engineering Technology degree program is accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org>.

#### Contact Information

##### Department Chair

Jeff Newcomer  
Engineering Technology 209  
360-650-3380  
[Jeff.Newcomer@wwu.edu](mailto:Jeff.Newcomer@wwu.edu)

##### EET Program Advisor

Todd Morton  
Engineering Technology 206  
360-650-2918  
[Todd.Morton@wwu.edu](mailto:Todd.Morton@wwu.edu)

##### Engineering Technology

##### Departmental Website

<http://www.etec.wwu.edu/>

##### Engineering Technology Advising

Engineering Technology 204  
360-650-3380

#### Sample Careers

Supervision and technical analysis or design | Design and development | Application support | technical sales | Customer service | Computer maintenance | Communications | Embedded systems | Digital and analog electronics | Electrical power

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Admission to the Electronics Engineering Technology major is a two-phase process. When students initially declare, they are designated as pre-majors. Admission to full major status is determined by academic performance as a pre-major. See the department's website for details <http://www.etec.wwu.edu/>.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

Electronics Core: 83 credits

- ETEC 270 - Electronics Seminar
- ETEC 271 - Circuit Analysis I
- ETEC 272 - Electronic Devices and Circuits
- ETEC 273 - Digital Electronics
- ETEC 274 - Fundamentals of Microprocessors

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- ETEC 371 - Circuit Analysis II
- ETEC 373 - Digital Systems
- ETEC 374 - Microprocessor Applications
- ETEC 375 - Electronic Systems
- ETEC 376 - Electrical Power
- ETEC 378 - Network Analysis
- ETEC 379 - Active Linear and Non-Linear Circuits
- ETEC 405 - Communications Circuits
- ETEC 454 - Embedded Systems
- ETEC 455 - Communication Systems
- ETEC 457 - Automatic Control Systems
- ETEC 471 - Project Definition
- ETEC 474 - Microcomputer-Based Design
- ETEC 475 - Digital Communications
- ETEC 478 - Digital Signal Processing
- Technical electives: 2 courses (6-10 credits) as approved by the program advisor

### Supporting Courses: 45-46 credits

- CHEM 121 - General Chemistry I
- CSCI 140 - Programming Fundamentals in C++
- MATH 321 - Mathematics for Technology
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 134 - Calculus I Honors
- One course from:
  - MATH 125 - Calculus and Analytic Geometry II
  - MATH 135 - Calculus II Honors
- One course from:
  - ENG 302 - Introduction to Technical and Professional Writing
  - ETEC 341 - Engineering and Society
- One course from:
  - COMM 101 - Fundamentals of Speech
  - COMM 235 - Exposition and Argumentation

## Industrial Design, BS

Department of Engineering Technology, College of Sciences and Technology

### 138-139 credits

#### Introduction/What is the Study of Industrial Design?

Industrial Design students learn problem-solving methodologies, product research, drawing skills (both by hand and by computer), three dimensional model making techniques, materials, manufacturing processes, ergonomics, design theory, and marketing principles. These skills are applied in the design of many new and innovative products which eventually comprise the student's portfolio.

### Why Consider an Industrial Design Major?

The Bachelor of Science Degree program in Industrial Design prepares graduates to begin work as practicing designers in corporate, consulting, or entrepreneurial positions. Industrial Design is a highly competitive, professional service of creating and developing concepts and specifications that optimize function, value, and appearance of products and systems for the mutual benefit of both the user and the manufacturer.

The Industrial Design degree program is accredited by the National Association of Schools of Art and Design (NASAD), 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190; phone (703) 437-0700.

#### Contact Information

Department Chair	Industrial Design Program Advisor	Engineering Technology Advising
Jeff Newcomer	Arunas Oslapas	Engineering Technology 204
Engineering Technology 209	Engineering Technology 337	360-650-3380
360-650-3380	360-650-3435	
Jeff.Newcomer@wwu.edu	Arunas.Oslapas@wwu.edu	

#### Sample Careers

Staff designer for a corporation that manufactures toys, electronics, furniture, outdoor gear, etc. | Design Consultant working in a small design firm that consults to a variety of manufacturers | Entrepreneur developing your own ideas

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Declaration of Major

#### *Entrance Portfolio Requirement*

Declaration of a pre-major in the Industrial Design program at Western Washington University requires the submission of a portfolio which, in the judgment of the faculty, offers evidence of a candidate's potential for success within the program.

A portfolio is a collection of an applicant's best work, revealing the applicant's interests and presented as professionally as possible. Applicants should submit work from high school/university courses, professional work, or self-initiated projects. For more information on design portfolios, please refer to the Industrial Design program website, [www.wwu.edu/id/](http://www.wwu.edu/id/).

Portfolios are reviewed by an industrial design committee three times per year prior to the quarter of acceptance into the pre-major. Submission deadlines are posted on the Industrial Design program website. If applicants do not qualify for acceptance one quarter, they may apply for a following quarter after improving the content of their portfolio.

Since the sophomore series of design courses begins in the fall and the courses are sequential, it is highly recommended that transfer students begin studies in the fall quarter. Most Industrial Design courses are only offered one quarter per year and serve as prerequisites for the subsequent courses, so it is important to begin the sequence in September.

#### *Entrance Portfolio Submission Format*

To apply for admission to the pre-major, an individual must submit a portfolio according to the format and content guidelines listed on the Industrial Design website. Application materials will not be returned unless a self-addressed, stamped envelope is provided or the applicant may pick up the portfolio in person.

#### *Sophomore Portfolio Review*

The sophomore portfolio review is held once a year during the second week in June and takes place after the first two years of studies (freshman and sophomore courses) have been successfully completed. Students will



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be selectively admitted as Industrial Design majors into the junior professional practice series based on their performance as pre-majors.

The requirements for this second portfolio review include successful completion of the following classes: MATH 115 or 118; PHYS 115; ETEC 112, 113, 214, 215, 216, 231, 311, 312; a minimum of two studio art courses (ART 110 and 120); one Art History course (ART 109 recommended); a maximum of 90 credits remaining to graduate; and a portfolio.

More information on the second portfolio review is available on the Western Washington University Industrial Design Website. Early advisement is essential.

The Industrial Design program is accredited by the National Association of Schools of Art and Design (NASAD), 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190, phone 703-437-0700.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Major -- Industrial Design (142-143 credits)

#### Industrial Design Core: 45 credits

- ETEC 112 - Introduction to Engineering, Design and Graphics
- ETEC 113 - Introduction to Computer-Aided Design
- ETEC 214 - Sophomore Industrial Design I
- ETEC 215 - History of Industrial Design
- ETEC 216 - Sophomore Industrial Design II
- ETEC 231 - Design Problems in Woodworking
- ETEC 246 - Manufacturing Processes I
- ETEC 301 - Materials for Design
- ETEC 311 - Perspective and Rendering I
- ETEC 312 - Industrial Design CAD Skills
- ETEC 315 - Perspective and Rendering II

#### Professional Practice Series: 30 credits

- ETEC 314 - Junior Industrial Design I
- ETEC 316 - Junior Industrial Design II
- ETEC 318 - Junior Industrial Design III
- ETEC 414 - Senior Industrial Design I
- ETEC 416 - Senior Industrial Design II
- ETEC 418 - Senior Industrial Design III

#### Supporting Courses: 67-68 credits

- ART 109 - Visual Dialogue
- ART 110 - Foundation Drawing I
- ART 120 - 2-Dimensional Art
- ART 203 - Foundation Drawing II
- One course from:
  - ART 320 - Painting I
  - ART 350 - Printmaking I
- One course from:
  - ART 230 - 3-Dimensional Art
  - ART 240 - Ceramics I
- Three courses from:
  - A/HI 220 - Visual Culture in Ancient Greece and Rome

- A/HI 221 - Visual Culture in Medieval Europe
- A/HI 230 - Visual Culture in Western Europe 1400-1550
- A/HI 231 - Visual Culture in Western Europe 1550-1700
- A/HI 240 - Visual Culture in Western Europe in the 19th Century
- A/HI 241 - Visual Culture in Western Europe and America in the 20th Century
- A/HI 270 - Visual Culture in South and Southeast Asia
- A/HI 271 - Visual Culture in East Asia
- LBRL 273 - Art and Society in China and Japan
- DSGN 111 - Design View
- DSGN 211 - Foundations of Visual Communication
- DSGN 249 - Graphic Design Concepts
  - One course from:
    - MATH 115 - Precalculus II
    - MATH 118 - Accelerated Precalculus
    - PHYS 114 - Principles of Physics I
    - PHYS 115 - Principles of Physics II
    - MGMT 271 - Law and the Business Environment
    - MKTG 380 - Principles of Marketing

## Industrial Technology - Vehicle Design Specialization, BS

Department of Engineering Technology, College of Sciences and Technology

### 118 credits

#### Introduction/What is the Study of Industrial Technology-Vehicle Design?

The Bachelor of Science degree program in industrial technology-vehicle design prepares graduates for design, product development and manufacturing in the automotive, marine, aerospace, composites, and alternative fuel industry. The program uses vehicle research, design and development projects to educate students. Through the Vehicle Research Institute, over 50 vehicles have been built since 1972. Since 1989, developing hybrid electrical and natural gas/biomethane vehicle technology has been a focus of the program. The student teams have set records around Indianapolis Motor Speedway, up Pike's Peak and across the Australian Outback with a class win in the 1990 World Solar Challenge. A recent team was the only U.S. university-based team in the finals of the Progressive Automotive X Prize - a \$10 million prize to build a 100 mile per hour gallon car. Graduates have entered a wide range of industry sectors including: automotive, racing industries, aerospace, marine, heavy duty vehicle, composites, prototype design and manufacturing, computer numerically controlled machining and biofuels. Students gain an understanding of the tools, materials and processes used in industry.

#### Why Consider a Vehicle Design Specialization in Industrial Technology Major?

The Bachelor of Science Degree program in Industrial Technology prepares graduates for the above listed fields.

Contact Information		
Department Chair	Vehicle Design Program Advisor	Engineering Technology Advising
Jeff Newcomer	Eric Leohardt	Engineering Technology 204
Engineering Technology 209	Engineering Technology 146	360-650-3380
360-650-3380	360-650-7266	
Jeff.Newcomer@wwu.edu	Eric.Leonhardt@wwu.edu	

# ENGINEERING TECHNOLOGY

## Sample Careers

Jobs obtained by Western students vary widely depending on the individual student's abilities and the portfolio of work they create while in the program. Graduates of this program hold positions with all the major automotive equipment manufacturers and custom car-building companies, as well as positions as stylists. Graduates also work in the marine, aerospace, composites and trucking industries.

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Admission to the Industrial Technology-Vehicle Design program is a two-phase process. When students initially declare, they are designated as pre-majors. Admission to full major status is determined by academic performance as a pre-major. See the department's website for details, <http://www.etc.wvu.edu/>.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

Core Courses: 70 credits

- ETEC 112 - Introduction to Engineering, Design and Graphics
- ETEC 113 - Introduction to Computer-Aided Design
- ETEC 220 - Introduction to Engineering Materials
- ETEC 224 - Applied Engineering Statics
- ETEC 225 - Strength of Materials
- ETEC 246 - Manufacturing Processes I
- ETEC 280 - Power Mechanics
- ETEC 281 - Power Transmission
- ETEC 327 - Manufacturing Economics
- ETEC 333 - Polymer Technology
- ETEC 334 - Reinforced Plastics/Composites
- ETEC 380 - Advanced Power Mechanics
- ETEC 382 - Automotive Electronics
- ETEC 400 - Independent Study
- ETEC 480 - Advanced Emission Control
- ETEC 484 - Vehicle Design
- ETEC 486 - Advanced Vehicle Design

Supporting courses: 48 credits

- CHEM 121 - General Chemistry I
- One course from:
  - CSCI 138 - Programming Fundamentals in Visual Basic
  - CSCI 140 - Programming Fundamentals in C++
  - CSCI 141 - Computer Programming I
- MATH 114 - Precalculus I AND MATH 115 - Precalculus II
- OR
- MATH 118 - Accelerated Precalculus
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I

- MATH 134 - Calculus I Honors
  - One course from:
    - MATH 125 - Calculus and Analytic Geometry II
    - MATH 135 - Calculus II Honors
    - □ PHYS 161 - Physics with Calculus I
    - □ PHYS 162 - Physics with Calculus II
    - □ PHYS 163 - Physics with Calculus III
  - One course from:
    - COMM 101 - Fundamentals of Speech
    - COMM 235 - Exposition and Argumentation
- Recommended electives to fulfill 60 credit upper division course requirement:
  - ETEC 311 - Perspective and Rendering I
  - ETEC 322 - Numerical Control Operations
  - ETEC 341 - Engineering and Society
  - ETEC 362 - Advanced CAD: Surface Modeling
  - ETEC 381 - Advanced Power Transmission
  - ETEC 426A - Advanced Computer Numerical Control - Surfacing and Contours
  - ETEC 434 - Advanced Composites
  - ETEC 461 - CAD Automation
  - ETEC 481 - Gaseous Fuels
  - ETEC 489 - Directed Research in Power Mechanics

## **Manufacturing Engineering Technology - Computer-Aided Design and Manufacturing Option, BS**

**128-132 credits**

### **Introduction/What is the Study of Manufacturing Engineering Technology - Computer Aided Design and Manufacturing Option?**

The Computer Aided Design and Manufacturing (CAD/CAM) option develops students with the expertise in advanced 3D parametric modeling and in the planning and programming of Computer Numerical Controlled (CNC) equipment used for designing and fabricating products and tooling. It builds upon a fundamental understanding of materials, processes, business, and economics introduced in the program. Whether the finished product is an athletic shoe or a jet airplane, the logical set of events that take place to produce that product must be planned and conceived in advance. The option builds upon the fundamental understanding of product form, function, materials, processes, business, and economics introduced in the core MET program.

### **Why Consider a Computer Aided Design and Manufacturing Option in Manufacturing Engineering Technology Major?**

MET majors can declare under a CAD/CAM option. This is geared towards preparing technologists who are knowledgeable in the use of 3D parametric modeling, tool, path planning and CNC programming and operations for product/tooling design and fabrication.

This program provides the technical ability to convert product ideas into reality through the systematic use of software, processes, and equipment. These skills and the ability to supervise and manage the underlying technologies are critical to a wide range of technical industries. Graduates of this program hold positions in product/tooling design, manufacturing, and management throughout the Northwest.

The Manufacturing Engineering Technology - Computer Aided Design and Manufacturing Option degree program is accredited by the Engineering Technology Accreditation Commission of ABET, [www.abet.org](http://www.abet.org).

# ENGINEERING TECHNOLOGY

## Contact Information

<b>Department Chair</b>	<b>CAD/CAM Program Advisor</b>	<b>Engineering Technology Advising</b>
Jeff Newcomer Engineering Technology 209 360-650-3380 Jeff.Newcomer@wwu.edu	Derek Yip-Hoi Engineering Technology 313 360-650-7236 Derek.Yip-Hoi@wwu.edu	Engineering Technology 204 360-650-3380

## Sample Careers

Product/tooling design and CAD modeling | Engineering Drafting | Programming and operation of CNC equipment | Consulting in CAD/CAM technologies | Supervision and management

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

MET majors can declare under a CAD/CAM option. Admission to the Manufacturing Engineering Technology-CAD/CAM Option major is a two phase process. Students initially declare as pre-majors. Admission to full major is determined by academic performance as a pre-major. See the department's website for details. Students should declare their major early and seek departmental advisement.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

Manufacturing Core: 78-82 credits

- ETEC 112 - Introduction to Engineering, Design and Graphics
- ETEC 113 - Introduction to Computer-Aided Design
- ETEC 220 - Introduction to Engineering Materials
- ETEC 224 - Applied Engineering Statics
- ETEC 225 - Strength of Materials
- ETEC 246 - Manufacturing Processes I
- ETEC 322 - Numerical Control Operations
- ETEC 325 - Manufacturing Process Planning
- ETEC 326 - Fluid Power
- ETEC 333 - Polymer Technology
- ETEC 335 - Tooling for Plastics Processing
- ETEC 344 - Industrial Quality Assurance
- ETEC 351 - Electronics for Engineering Technology I
- ETEC 361 - Advanced CAD: Assembly and Design Mechanisms
- ETEC 362 - Advanced CAD: Surface Modeling
- ETEC 424 - Manufacturing Implementation
- One course from:
  - ETEC 426A - Advanced Computer Numerical Control - Surfacing and Contours
  - ETEC 426B - Advanced Computer Numerical Control - Mill/Turn
  - ETEC 426C - Advanced Computer Numerical Control - Hi-Speed Machining
  - ETEC 426D - Advanced Computer Numerical Control - EDM
- ETEC 427 - Tool Design

Supporting courses: 50 credits

One course from:

- MATH 124 - Calculus and Analytic Geometry I
- MATH 134 - Calculus I Honors

One course from:

- MATH 125 - Calculus and Analytic Geometry II
- MATH 135 - Calculus II Honors
- MATH 245 - Statistics for Engineering Technology
- CSCI 140 - Programming Fundamentals in C++
- OPS 461 - Project Management
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III
- CHEM 121 - General Chemistry I

One course from:

- COMM 101 - Fundamentals of Speech
- COMM 235 - Exposition and Argumentation
- ETEC 341 - Engineering and Society
- ETEC 422 - Manufacturing Project Definition

Technical Electives: two courses (6-10 credits)\*

- ETEC 312 - Industrial Design CAD Skills
- ETEC 334 - Reinforced Plastics/Composites
- ETEC 338 - Injection Molding
- ETEC 346 - Manufacturing and Design
- ETEC 352 - Electronics for Engineering Technology II
- ETEC 354 - Electronics for Engineering Technology III
- ETEC 397 (when relevant)
- ETEC 420 - Manufacturing Automation and Robotics
- ETEC 425 - Machine Design
- ETEC 426A - Advanced Computer Numerical Control - Surfacing and Contours
- ETEC 426B - Advanced Computer Numerical Control - Mill/Turn
- ETEC 426C - Advanced Computer Numerical Control - Hi-Speed Machining
- ETEC 426D - Advanced Computer Numerical Control - EDM
- ETEC 428 - Advanced Manufacturing Laboratory
- ETEC 429 - Directed Research in Manufacturing
- ETEC 434 - Advanced Composites
- ETEC 444 - Data Analysis and Design of Experiments
- ETEC 461 - CAD Automation
- ETEC 497 (when relevant)
- OPS 460 - Designing and Improving Lean Operations
- OPS 463 - Enterprise Resource Planning Systems
- OPS 466 - Supply Chain Management
- MATH 204 - Elementary Linear Algebra
- MATH 307 - Mathematical Computing
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 331 - Ordinary Differential Equations

# ENGINEERING TECHNOLOGY

- MGMT 311 - Introduction to Management and Organizational Behavior
- MGMT 313 - Teamwork Basics

\* *Technical electives are to be chosen from the above approved list. The list is also available from program faculty advisors.*

## Manufacturing Engineering Technology, BS

Department of Engineering Technology, College of Sciences and Technology

**129-133 credits**

### Introduction/What is the Study of Manufacturing Engineering Technology?

Within a typical manufacturing organization, there are multitudes of machines performing many different functions on hundreds or perhaps thousands of different parts. Whether the finished product is an athletic shoe or a jet airplane, the logical set of events that take place to produce that product must be planned and conceived in advance. The location of each machine, the movement of a part or machine tool and the order of operations – even the machines themselves must be planned in detail. Day-to-day production problems must be solved.

A Manufacturing Engineering Technologist will help to solve the complex problems associated with manufacturing operations. Manufacturing Engineering Technologists work in teams with engineers, scientists and technicians to solve manufacturing related problems. Engineering Technology Programs are less theoretical than engineering programs and are more application or "hands-on" oriented. There are laboratory components to most Engineering Technology courses, where students learn to apply theoretical knowledge learned in the classroom to solve practical or application-based problems.

### Why Consider a Manufacturing Engineering Technology Major?

Manufacturing engineering technology prepares engineering technologists who understand and can apply established scientific and engineering knowledge and methods in combination with technical skills of modern technology to support engineering activities. Career fields include development and testing of new products, computer-aided design and manufacturing, computer numerical control operations, process planning and tooling design, robotics, cost analysis, production supervision and management, marketing and technical support, production process control, manufacturing support, and technical sales and service.

The Manufacturing Engineering Technology degree program is accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org>.

#### Contact Information

<b>Department Chair</b>	<b>MET Program Advisor</b>	<b>Engineering Technology Advising</b>
Jeff Newcomer	Jeff Newcomer	Engineering Technology 204
Engineering Technology 209	Engineering Technology 204	360-650-3380
360-650-3380	360-650-7239	
Jeff.Newcomer@wwu.edu	Jeff.Newcomer@wwu.edu	

#### Sample Careers

A Manufacturing Engineering Technologist can be involved in the development, design, analysis, planning, supervision or construction of the methods and equipment for the production of industrial or consumer goods. Companies that employ MET graduates include: The Boeing Company, Microsoft, Nike, Tempress, Fleck, Pacific Switch Systems, Alpha Technologies, etc.

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Admission to the Manufacturing Engineering Technology major is a two-phase process. When students initially declare, they are designated as pre-majors. Admission to full major status is determined by academic performance as a pre-major. See the department's website for details, <http://www.etc.wvu.edu/>.

MET majors can declare under a CAD/CAM option. This is geared towards preparing technologists who are knowledgeable in the use of 3D parametric modeling techniques, tool path planning and CNC programming and operations for product/tooling design and fabrication.

Prospective students are encouraged to include physics, chemistry and mathematics in their high school preparation. University-level physics, computer science, and calculus must be taken during the first two years to ensure that junior-level course prerequisites are completed.

Certain community colleges offer classes equivalent to some MET classes, therefore, it is necessary for interested students to seek early advisement from the Department of Engineering Technology.

Students can expect to complete this program in four years by carrying 15-16 credits per quarter in a prescribed sequence of courses.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

**Requirements****Manufacturing Core: 75-79 credits**

- ETEC 112 - Introduction to Engineering, Design and Graphics
- ETEC 113 - Introduction to Computer-Aided Design
- ETEC 220 - Introduction to Engineering Materials
- ETEC 224 - Applied Engineering Statics
- ETEC 225 - Strength of Materials
- ETEC 246 - Manufacturing Processes I
- ETEC 322 - Numerical Control Operations
- ETEC 325 - Manufacturing Process Planning
- ETEC 326 - Fluid Power
- ETEC 333 - Polymer Technology
- ETEC 344 - Industrial Quality Assurance
- ETEC 351 - Electronics for Engineering Technology I
- ETEC 352 - Electronics for Engineering Technology II
- ETEC 420 - Manufacturing Automation and Robotics
- ETEC 424 - Manufacturing Implementation
- ETEC 427 - Tool Design
- ETEC 444 - Data Analysis and Design of Experiments
- Technical electives: two classes (6-10 credits)\*

**Supporting Courses: 54 credits**

- CHEM 121 - General Chemistry I
- CSCI 140 - Programming Fundamentals in C++
- ETEC 341 - Engineering and Society
- ETEC 422 - Manufacturing Project Definition
- MATH 245 - Statistics for Engineering Technology
- OPS 460 - Designing and Improving Lean Operations
- OPS 461 - Project Management



## ENGINEERING TECHNOLOGY

- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 134 - Calculus I Honors
- One course from:
  - MATH 125 - Calculus and Analytic Geometry II
  - MATH 135 - Calculus II Honors
- One course from:
  - COMM 101 - Fundamentals of Speech
  - COMM 235 - Exposition and Argumentation
- \*Technical electives:  
*Two technical electives courses (6-10 credits) are required for the MET degree. At least one class must be a Processing course.*

### **Processing Classes - must take one:**

- ETEC 334 - Reinforced Plastics/Composites
- ETEC 338 - Injection Molding
- ETEC 426A - Advanced Computer Numerical Control - Surfacing and Contours
- ETEC 426B - Advanced Computer Numerical Control - Mill/Turn
- ETEC 426C - Advanced Computer Numerical Control - Hi-Speed Machining
- ETEC 426D - Advanced Computer Numerical Control - EDM
- ETEC 428 - Advanced Manufacturing Laboratory

### **Approved technical electives - must take one:**

- ETEC 226 - Engineering Dynamics
- ETEC 335 - Tooling for Plastics Processing
- ETEC 346 - Manufacturing and Design
- ETEC 361 - Advanced CAD: Assembly and Design Mechanisms
- ETEC 362 - Advanced CAD: Surface Modeling
- ETEC 377 - Instrumentation
- ETEC 397 (when relevant)
- ETEC 425 - Machine Design
- ETEC 429 - Directed Research in Manufacturing
- ETEC 431 - Plastics Product Design
- ETEC 433 - Engineering Polymers
- ETEC 434 - Advanced Composites
- ETEC 497 (when relevant)
- MATH 204 - Elementary Linear Algebra
- MATH 307 - Mathematical Computing
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 331 - Ordinary Differential Equations
- MGMT 311 - Introduction to Management and Organizational Behavior
- MGMT 313 - Teamwork Basics
- OPS 463 - Enterprise Resource Planning Systems
- OPS 466 - Supply Chain Management
- OPS 467 - Global Operations Strategy
- OPS 468 - Manufacturing and Supply Chain Strategy

## Plastics Engineering Technology - Vehicle Engineering Technology Option, BS (In Moratorium)

Department of Engineering Technology, College of Sciences and Technology

**This program option is not currently accepting new students. For further information contact the Engineering Technology Department, Western Washington University, 516 High Street, Bellingham, WA 98225-9086, 360-650-3380.**

**132 credits**

### Introduction/What is the Study of Plastics Engineering Technology?

The Plastics Engineering Technology-Vehicle Engineering Technology (PET/VET) program prepares students for productive, professional careers in the plastics and composites industries. The technical curriculum is built upon a firm base of mathematics, physics, chemistry and materials science, and provides extensive coverage of polymeric and composite materials and processing methods. Practical experience and applied research in design, tooling, processing, testing, analysis and production is a crucial part of the curriculum that is provided in the program's extensive and well-equipped laboratory facilities.

Students can expect to complete the program in four years by carrying 15-16 credits per quarter in a prescribed sequence of courses. The plastics engineering technology degree program is accredited by the Technology Accreditation Commission of ABET, <http://www.abet.org>.

### Why Consider an Engineering Technology Option in Plastics Engineering Technology Major?

Contact Information		
Department Chair	PET Program Advisor	Engineering Technology Advising
Jeff Newcomer	Nicole Hoekstra	Engineering Technology 204
Engineering Technology 209	Engineering Technology 204	360-650-3380
360-650-3380	360-650-7237	
Jeff.Newcomer@wwu.edu	Nicole.Hoekstra@wwu.edu	

#### Sample Careers

Major/Career Resources
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>

### How to Declare (Admission and Declaration Process):

Declaration of Major

Declaration Process: PET/VET Declaration is a two-phase process for a PET/VET Bachelor of Science major. In phase one, students declare as a Vehicle Design pre-major. Entrance to the PET/VET major (phase II) is competitive and based on performance in ETEC 220, 280, 281, CHEM 121, and additional project work.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

Requirements

Technical Core: 82 credits

- ETEC 112 - Introduction to Engineering, Design and Graphics

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- ETEC 113 - Introduction to Computer-Aided Design
- ETEC 220 - Introduction to Engineering Materials
- ETEC 224 - Applied Engineering Statics
- ETEC 225 - Strength of Materials
- ETEC 246 - Manufacturing Processes I
- ETEC 280 - Power Mechanics
- ETEC 281 - Power Transmission
- ETEC 327 - Manufacturing Economics
- ETEC 333 - Polymer Technology
- ETEC 334 - Reinforced Plastics/Composites
- ETEC 344 - Industrial Quality Assurance
- ETEC 380 - Advanced Power Mechanics
- ETEC 382 - Automotive Electronics
- ETEC 432 - Plastics Senior Project - Implementation
- ETEC 434 - Advanced Composites
- ETEC 444 - Data Analysis and Design of Experiments
- ETEC 480 - Advanced Emission Control
- ETEC 484 - Vehicle Design
- ETEC 486 - Advanced Vehicle Design

## Technical electives

4 credits from:

- ETEC 322 - Numerical Control Operations
- ETEC 335 - Tooling for Plastics Processing
- ETEC 338 - Injection Molding
- ETEC 431 - Plastics Product Design
- ETEC 433 - Engineering Polymers
- ETEC 436 - Polymer Compounding
- ETEC 438 - Directed Research in Plastics
- ETEC 300/400 - DIRECTED INDEPENDENT STUDIES
- ETEC 489 - Directed Research in Power Mechanics  
or courses approved by major advisor

## Supporting courses: 46 credits

- MATH 124 - Calculus and Analytic Geometry I
- MATH 125 - Calculus and Analytic Geometry II
- One course from:
  - MATH 240 - Introduction to Statistics
  - MATH 245 - Statistics for Engineering Technology
- CHEM 121 - General Chemistry I
- CHEM 251 - Elementary Organic Chemistry
- One course from:
  - CSCI 140 - Programming Fundamentals in C++
  - CSCI 141 - Computer Programming I
- One course from:
  - COMM 101 - Fundamentals of Speech
  - COMM 235 - Exposition and Argumentation
- ETEC 341 - Engineering and Society
- ETEC 430 - Plastics Senior Project - Definition

# Plastics Engineering Technology, BS

Department of Engineering Technology, College of Sciences and Technology

## 135-139 credits

### Introduction/What is the Study of Plastics Engineering Technology?

Students enrolled in Western's Plastics Engineering Technology (PET) program study the structure and characteristics of polymers, manufacturing methods, product design fundamentals, and modern processing methods for composites and polymeric materials. The PET curriculum prepares graduates who understand and apply established scientific and engineering knowledge to support engineering activities in manufacturing environments. A plastics engineering technologist can be involved in the development, design analysis, planning, supervision or construction of the methods and equipment for the production of industrial or consumer goods in the plastics or composites industry. The Plastics Engineering Technology (PET) graduate will help to solve the complex problems associated with plastics or composites manufacturing operations. PET graduates work in teams with engineers, scientists and technicians to solve manufacturing related problems. Practical experience and applied research in design, tooling, processing, testing, analysis, and production is a crucial part of the program.

The Plastics Engineering Technology (PET) program prepares students for productive, professional careers in the plastics and composites industries. The technical curriculum is built upon a firm base of mathematics, physics, chemistry and materials science, and provides extensive coverage of polymeric and composite materials and processing methods. Practical experience and applied research in design, tooling, processing, testing, analysis and production is a crucial part of the curriculum that is provided in the program's extensive and well-equipped laboratory facilities.

Students can expect to complete the program in four years by carrying 15-16 credits per quarter in a prescribed sequence of courses.

### Why Consider a Plastics Engineering Technology Major?

PET programs are less theoretical than engineering programs and are more applications or "hands-on" oriented. There are laboratory components to most PET courses where students learn to apply theoretical knowledge learned in the classroom to solve practical or application-based problems.

The Plastics Engineering Technology degree program is accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org>.

#### Contact Information

Department Chair	PET Program Advisor	Engineering Technology Advising
Jeff Newcomer	Nicole Hoekstra	Engineering Technology 204
Engineering Technology 209	Engineering Technology 204	360-650-3380
360-650-3380	360-650-7237	
Jeff.Newcomer@wwu.edu	Nicole.Hoekstra@wwu.edu	

#### Sample Careers

Process Engineer | Project Engineer | R&D Engineer | Product Development Engineer | Sales Engineer | Materials Engineer

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Meet with a Department of Engineering Technology advisor to declare a Plastics Engineering Technology major. Admission to the Plastics Engineering Technology major is a two-phase process. When students initially

# ENGINEERING TECHNOLOGY

declare, they are designated as pre-majors. Admission to full major status is determined by academic performance as a pre-major. See the department's website for details, <http://www.etec.wvu.edu/>.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

### Plastics Core: 77-81 credits

- ETEC 112 - Introduction to Engineering, Design and Graphics
- ETEC 113 - Introduction to Computer-Aided Design
- ETEC 220 - Introduction to Engineering Materials
- ETEC 224 - Applied Engineering Statics
- ETEC 225 - Strength of Materials
- ETEC 246 - Manufacturing Processes I
- ETEC 322 - Numerical Control Operations
- ETEC 333 - Polymer Technology
- ETEC 334 - Reinforced Plastics/Composites
- ETEC 335 - Tooling for Plastics Processing
- ETEC 338 - Injection Molding
- ETEC 344 - Industrial Quality Assurance
- ETEC 351 - Electronics for Engineering Technology I
- ETEC 432 - Plastics Senior Project - Implementation
- ETEC 433 - Engineering Polymers
- ETEC 434 - Advanced Composites
- ETEC 436 - Polymer Compounding
- ETEC 444 - Data Analysis and Design of Experiments
- Technical electives approved by major advisor (2 courses (6-10 credits))

### Supporting Courses: 53 credits

- CHEM 121 - General Chemistry I
- CHEM 251 - Elementary Organic Chemistry
- CHEM 308 - Introduction to Polymer Chemistry
- ETEC 341 - Engineering and Society
- ETEC 430 - Plastics Senior Project - Definition
- OPS 461 - Project Management
- One course from:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 134 - Calculus I Honors
- One course from:
  - MATH 125 - Calculus and Analytic Geometry II
  - MATH 135 - Calculus II Honors
- One course from:
  - MATH 245 - Statistics for Engineering Technology
  - MATH 240 - Introduction to Statistics
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II

- PHYS 163 - Physics with Calculus III
- One course from:
  - COMM 101 - Fundamentals of Speech
  - COMM 235 - Exposition and Argumentation
- One course from:
  - CSCI 140 - Programming Fundamentals in C++
  - CSCI 141 - Computer Programming I

## Minor

### Embedded Systems Minor

Department of Engineering Technology, College of Sciences and Technology

#### 32-37 credits

#### Introduction/What is the Study of Embedded Systems?

#### Why Consider an Embedded Systems Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- ETEC 271 - Circuit Analysis I
- ETEC 272 - Electronic Devices and Circuits
- ETEC 273 - Digital Electronics
- ETEC 274 - Fundamentals of Microprocessors
- ETEC 373 - Digital Systems
- ETEC 374 - Microprocessor Applications
- ETEC 375 - Electronic Systems
- ETEC 454 - Embedded Systems

Students are advised that MATH 114 (or higher), CSCI 140 (or CSCI 141), and CSCI 145 are prerequisites to some of the required courses and should be taken prior to the required courses.

## Industrial Technology - Vehicle Design Minor

Department of Engineering Technology, College of Sciences and Technology

**40 credits**

### Introduction/What is the Study of Industrial Technology?

### Why Consider a Vehicle Design Minor in Industrial Technology?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Meet with a Department of Engineering Technology advisor to declare an Industrial Technology - Vehicle Design (IT-VD) minor.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- ETEC 220 - Introduction to Engineering Materials
- ETEC 224 - Applied Engineering Statics
- ETEC 225 - Strength of Materials
- ETEC 280 - Power Mechanics
- ETEC 281 - Power Transmission
- ETEC 351 - Electronics for Engineering Technology I
- ETEC 380 - Advanced Power Mechanics
- ETEC 382 - Automotive Electronics
- ETEC 484 - Vehicle Design
- ETEC 486 - Advanced Vehicle Design
  - Students are advised that MATH 125, PHYS 122, and CHEM 121 are prerequisites to some of the required courses and should be taken prior to the required courses.
  - Plastics Engineering Technology majors cannot get the IT-VD minor; the programs are too closely related.

## Manufacturing Engineering Technology Minor

Department of Engineering Technology, College of Sciences and Technology

**27-29 credits**

**Introduction/What is the Study of Manufacturing Engineering Technology?**

**NOTE:** The Manufacturing Engineering Technology (MET) minor was designed for non-Engineering Technology (ETEC) majors. The only ETEC majors that may work on the minor are Electronics Engineering Technology (EET) and Industrial Design (ID). Meet with a Department of Engineering Technology advisor to declare a Manufacturing Engineering Technology minor.

**Why Consider a Manufacturing Engineering Technology Minor?**

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):****Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- ETEC 112 - Introduction to Engineering, Design and Graphics
- ETEC 113 - Introduction to Computer-Aided Design
- ETEC 220 - Introduction to Engineering Materials
- ETEC 246 - Manufacturing Processes I
- ETEC 325 - Manufacturing Process Planning
- Two of the following courses:
  - ETEC 224 - Applied Engineering Statics
  - ETEC 225 - Strength of Materials
  - ETEC 322 - Numerical Control Operations
  - ETEC 333 - Polymer Technology
  - ETEC 334 - Reinforced Plastics/Composites
  - ETEC 361 - Advanced CAD: Assembly and Design Mechanisms
  - ETEC 362 - Advanced CAD: Surface Modeling
  - ETEC 427 - Tool Design
- Students are advised that MATH 125, PHYS 161 and CHEM 121 are prerequisites to some of the required courses and should be taken prior to the required courses.

**Sustainable Design Minor (see Environmental Studies Department)**

Sustainable Design Minor (see Environmental Studies Department)

**User Experience (UX) Design Minor**

**28-29 credits depending on major (7-8 courses)**



## Introduction/What is the Study of User Experience (UX) Design?

User experience design is a multidisciplinary profession that is still evolving and yet is in high demand. It is a combination of graphic design, industrial design, psychology, computer science and business. It requires big picture, strategic design skills, and the ability to design the very detailed interactions in interface. As such, good UX designers are in very short supply. This minor is intended only for industrial design, psychology, design and computer science majors only.

## Why Consider a User Experience (UX) Design Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admissions and Declaration Process):

The predicted enrollment of this minor is high, so a cap may be necessary to limit enrollment. 15-18 minors would be accepted per year. Selection would occur two times per year. Once in the Fall and once in the Spring due on the third Friday of the quarter. The selection committee would comprise of representatives from each of the four programs (Industrial Design, Design, Psychology and Computer Science).

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

For Industrial Design majors (28 credits)

- CSCI 101 - Computers and Applications
- CSCI 102 - Computer-Mediated Communications
- CSCI 103 - Introduction to Computer Game Development
- ETEC 413 - UX Design Capstone
- PSY 101 - Introduction to Psychology
- PSY 210 - Cognition
- Choose one from:
  - DSGN 111 - Design View
  - DSGN 211 - Foundations of Visual Communication

For Computer Science majors (28 credits)

- DSGN 111 - Design View
- DSGN 249 - Graphic Design Concepts
- ETEC 413 - UX Design Capstone
- PSY 101 - Introduction to Psychology
- PSY 210 - Cognition
- Choose one from:
  - DSGN 211 - Foundations of Visual Communication
  - ETEC 215 - History of Industrial Design
- Choose one from:
  - ETEC 311 - Perspective and Rendering I

- ETEC 312 - Industrial Design CAD Skills

For Psychology majors (28 credits)

- CSCI 101 - Computers and Applications
- CSCI 102 - Computer-Mediated Communications
- CSCI 103 - Introduction to Computer Game Development
- DSGN 111 - Design View
- DSGN 249 - Graphic Design Concepts
- ETEC 413 - UX Design Capstone
- Choose one from:
  - DSGN 211 - Foundations of Visual Communication
  - ETEC 215 - History of Industrial Design
- Choose one from:
  - ETEC 311 - Perspective and Rendering I
  - ETEC 312 - Industrial Design CAD Skills

For Design majors (29 credits)

- CSCI 101 - Computers and Applications
- CSCI 102 - Computer-Mediated Communications
- CSCI 103 - Introduction to Computer Game Development
- ETEC 413 - UX Design Capstone
- PSY 101 - Introduction to Psychology
- PSY 210 - Cognition
- Choose one from:
  - ETEC 311 - Perspective and Rendering I
  - ETEC 312 - Industrial Design CAD Skills

## WWU Certificate (Non-Degree)

### Vehicle Design Post-Baccalaureate Certificate Program

Department of Engineering Technology, College of Sciences and Technology

**49-56 credits\***

#### Introduction/What is the Study of Vehicle Design?

Students study all aspects of vehicle design, including power plants, transmissions, chassis design, and component materials. The courses are laboratory-oriented. *Individual plan of study may vary based on student's prior course of study in engineering.*

#### Why Consider a Post-Baccalaureate Certificate in Vehicle Design?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

# ENGINEERING TECHNOLOGY

## How to Declare (Admission and Declaration Process):

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- ETEC 112 - Introduction to Engineering, Design and Graphics
- ETEC 113 - Introduction to Computer-Aided Design
- ETEC 220 - Introduction to Engineering Materials
- ETEC 280 - Power Mechanics
- ETEC 281 - Power Transmission
- ETEC 333 - Polymer Technology
- ETEC 334 - Reinforced Plastics/Composites
- ETEC 380 - Advanced Power Mechanics
- ETEC 382 - Automotive Electronics
- ETEC 480 - Advanced Emission Control
- ETEC 484 - Vehicle Design
- ETEC 486 - Advanced Vehicle Design
- ETEC 489 - Directed Research in Power Mechanics

\*Some course requirements, such as computer aided design courses, may be waived based on the applicants prior degree and course history

## Engineering Technology Courses

### ETEC 110 - Engineering Design Graphics I

Introduction to the engineering design process. Course topics include the design process, ideation sketching, communication drawing, documentation drawing, three-dimensional Computer-Aided Design for product development.

**Prerequisites & Notes:** Variable lab fee.

Credits: 3

### ETEC 111 - Engineering Design Graphics II

Second course in engineering design graphics. Includes further study of the design process, creating design specifications, Computer-Aided Design and Drafting for parametric modeling, assembly modeling and technical drawing, rapid prototyping.

**Prerequisites & Notes:** ETEC 110 or equivalent

Credits: 3

### ETEC 112 - Introduction to Engineering, Design and Graphics

Introduces students to the field of engineering, the design process and communication of ideas with graphics. Includes team design projects, drawing instruction and assignments, overviews of the different engineering disciplines, engineering history, case studies of engineering feats and failures, and how things are made.

Credits: 3

### ETEC 113 - Introduction to Computer-Aided Design

Introduction to parametric, Computer-Aided Design. Covers sketching and feature-based modeling in the creation of 3D parts for engineered products, assembly modeling and drafting. Emphasizes modeling of machined and plastic components and generation of drawings with proper dimensioning and GDT.

**Prerequisites & Notes:** ETEC 112 or concurrent.  
Credits: 4

**ETEC 214 - Sophomore Industrial Design I**

Introductory industrial design studio course explores the use of different media and techniques to create innovative solutions for two- and three-dimensional design problems. Emphasis on fundamental design principles, ability to express new ideas, and awareness of the consumer market.

**Prerequisites & Notes:** ETEC 231  
Credits: 5

**ETEC 215 - History of Industrial Design**

A historical overview of mass-produced products, the designers who created them, and their influence on our culture and society. International perspective covering significant events from the Industrial Revolution to the present.

Credits: 3

**ETEC 216 - Sophomore Industrial Design II**

Second industrial design studio course focusing on more difficult design problems and using a more comprehensive design methodology. Additional emphasis on idea generation, human factors, basic mechanics and fabrication of models.

**Prerequisites & Notes:** ETEC 214.  
Credits: 5

**ETEC 220 - Introduction to Engineering Materials**

The relationship between the properties, structure and processes of engineering materials is discussed. Emphasis on the fundamentals of selecting materials based on engineering design criteria. Also offered as MSCI 201.

**Prerequisites & Notes:** CHEM 121 or CHEM 125; and (MATH 157 and PHYS 114) or (MATH 124 and PHYS 161) or concurrent.  
Credits: 4

**ETEC 224 - Applied Engineering Statics**

Principles and basic concepts of statics including: vector analysis applied to equilibrium of rigid body systems and subsystems, force and moment

resultants, free body diagrams, internal forces and friction. Analysis of basic structural and machine systems and components. Shear and moment diagrams. Fundamentals of linear algebra and the solution of simultaneous systems.

**Prerequisites & Notes:** MATH 125 or concurrent; PHYS 161 or departmental permission.  
Credits: 4

**ETEC 225 - Strength of Materials**

Internal response of structural members to forces; principal stresses and strains; combined stresses.

**Prerequisites & Notes:** ETEC 220, ETEC 224; MATH 125  
Credits: 5

**ETEC 226 - Engineering Dynamics**

Kinematics and kinetics of particles and rigid bodies, including methods of work and energy, and impulse and momentum.

**Prerequisites & Notes:** ETEC 224, MATH 224  
Credits: 4

**ETEC 231 - Design Problems in Woodworking**

Wood as a material for solving a variety of design problems. Learn the safe and effective use of woodworking tools and techniques.

**Prerequisites & Notes:** ETEC 112 or concurrent.  
Credits: 4

**ETEC 246 - Manufacturing Processes I**

An introduction to the manufacturing processes used to cast, form, cut, and join metal when creating parts per an engineering drawing. Students will be introduced, but not limited, to Foundry, Forming, Joining and Manual Machining processes.

**Prerequisites & Notes:** MATH 115 or higher; ETEC 113; ETEC 220 or ETEC 301 or concurrent; or permission of instructor.  
Credits: 4

**ETEC 270 - Electronics Seminar**

Introduction to careers in electronics. Seminars presented by industrial representatives and Western faculty. Topics include sales and customer

# ENGINEERING TECHNOLOGY

service, product development and design, manufacturing, entrepreneurial opportunities, marketing, and an introduction to computer tools. S/U grading.

Credits: 1  
Grade Mode: S/U

## **ETEC 271 - Circuit Analysis I**

Fundamental properties of electrical components and their use in DC and AC circuits. Use of basic laws and theorems in circuit analysis and design. Laboratory experiments with electrical components and circuits.

**Prerequisites & Notes:** MATH 114 or concurrent.  
Credits: 5

## **ETEC 272 - Electronic Devices and Circuits**

A first course in electronic devices and circuits. Fundamental properties of semiconductor devices and their behavior in electronic circuits. Laboratory experiments in construction, testing, investigation and troubleshooting.

**Prerequisites & Notes:** ETEC 271  
Credits: 4

## **ETEC 273 - Digital Electronics**

Introductory digital electronics with emphasis on basic digital concepts, Boolean algebra, digital integrated circuit devices and the major functional units from building block approach. Laboratory with applications, constructing, testing and troubleshooting of digital circuits.

**Prerequisites & Notes:** ETEC 271, EET major or written permission  
Credits: 4

## **ETEC 274 - Fundamentals of Microprocessors**

Introduction to microprocessors and programming concepts. Study of structured programming, instruction sets, hardware and interfacing techniques. Laboratory experiments with popular units.

**Prerequisites & Notes:** ETEC 273; CSCI 140 or CSCI 141; EET major or written permission.  
Credits: 5

## **ETEC 280 - Power Mechanics**

Design principles of major power sources: including Otto cycle, Clerk cycle, Diesel, Wankel, Stirling cycle and Rankine cycle engines.

Credits: 5

## **ETEC 281 - Power Transmission**

Principles and practices of mechanical transmission of power. Gear drive, chain drive, belt drive, overrunning clutches, universal joints, synchromesh transmissions and limited slip differentials are covered in theory and practice.

**Prerequisites & Notes:** ETEC 280 or concurrent.  
Credits: 5

## **ETEC 301 - Materials for Design**

Fundamentals of materials technology for industrial design majors. Properties and processing of materials with an emphasis on plastics.

**Prerequisites & Notes:** ETEC 110 or ETEC 112.  
Credits: 5

## **ETEC 311 - Perspective and Rendering I**

First half of course explores perspective systems, shadow construction, reflections and other aspects of technical drawing as they apply to industrial design. Second half applies perspective skills to realistic marker rendering of materials and products as well as rapid visualization as an informal means of expressing new ideas quickly.

**Prerequisites & Notes:** ETEC 112 or permission of instructor.  
Credits: 4

## **ETEC 312 - Industrial Design CAD Skills**

Computer-intensive course focusing on solid modeling, advanced rendering techniques, vector-based drawing and raster-based image editing relevant to industrial design that will enable students to present and communicate product design concepts skillfully.

**Prerequisites & Notes:** ETEC 311 or concurrent or permission of instructor.  
Credits: 4

## **ETEC 314 - Junior Industrial Design I**

Studio course work emphasizing a comprehensive design methodology which includes market research, problem identification, idea generation, implementation and presentation. Additional focus on a team approach.

**Prerequisites & Notes:** Acceptance into junior industrial design program.

Credits: 5

### **EETEC 315 - Perspective and Rendering II**

Advanced applications of perspective and rendering will include further exploration in various media including the use of computers in generating product images.

**Prerequisites & Notes:** EETEC 311

Credits: 4

### **EETEC 316 - Junior Industrial Design II**

Studio course work focusing on the development of a concept from the research phase to a three-dimensional model that is submitted to a national competition. Emphasis on concise project explanation, descriptive drawings and quality photo-documentation of model.

**Prerequisites & Notes:** EETEC 314

Credits: 5

### **EETEC 318 - Junior Industrial Design III**

Studio course work focusing on a collaborative project with industry. Assignments are jointly directed by the instructor and industry. Students are expected to relate to the industry sponsor as their client and perform their work professionally.

**Prerequisites & Notes:** EETEC 316

Credits: 5

### **EETEC 322 - Numerical Control Operations**

Laboratory-intensive course which provides students with the opportunity to design, program and produce NC and CNC manufactured parts.

**Prerequisites & Notes:** EETEC 246; limited to Manufacturing Engineering Technology, Manufacturing Engineering Technology-CAD/CAM and Plastics Engineering Technology majors during Phase I.

Credits: 4

### **EETEC 325 - Manufacturing Process Planning**

Process planning for manufacturing. Determination of process steps. Workstation design, including ergonomic, safety, and health considerations. Introduction to engineering economics.

**Prerequisites & Notes:** EETEC 246; MATH 245 or concurrent or equivalent.

Credits: 4

### **EETEC 326 - Fluid Power**

Fluid properties, basic principles of pneumatic and hydraulic power components and systems, control techniques, and fluid system analysis and design.

**Prerequisites & Notes:** MATH 125; CSCI 140 or equivalent; EETEC 225, EETEC 351 or concurrent.

Credits: 4

### **EETEC 327 - Manufacturing Economics**

Examines many techniques to factor cost into manufacturing decisions. Topics covered include capital allocation, product cost estimating, work measurement, value engineering and budgeting.

**Prerequisites & Notes:** MATH 115 or higher; EETEC 246.

Credits: 3

### **EETEC 333 - Polymer Technology**

Polymer science and analysis of basic plastics materials; experience in product design, tooling, and processing of thermoplastic.

**Prerequisites & Notes:** EETEC 112 and EETEC 220.

Credits: 5

### **EETEC 334 - Reinforced Plastics/Composites**

Polymer and reinforcement systems; material testing; mold design and development; laboratory involvement in reinforced plastics production processes.

**Prerequisites & Notes:** EETEC 333

Credits: 5

### **EETEC 335 - Tooling for Plastics Processing**

Design and construction of various types of production molds that are used for processing

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plastics. Product design in relationship to molding techniques and various techniques and materials used to construct the molds are the major units of study. Extensive lab work.

**Prerequisites & Notes:** ETEC 322; ETEC 333; ETEC 338 or ETEC 362.  
Credits: 4

## **ETEC 338 - Injection Molding**

Theory and practice of injection molding. Analysis of machine functions, processing parameters, production tooling, process control systems, quality assurance, automation, theology of polymers, heat transfer. Extensive lab experience.

**Prerequisites & Notes:** ETEC 333 and PHYS 163  
Credits: 4

## **ETEC 341 - Engineering and Society**

Explores the relationship between the engineering profession and society, and the role of communication in engineering. Proposals, reports, documentation of procedures, presentations, and communication to multiple audiences will be discussed and practiced.

**Prerequisites & Notes:** ENG 101; COMM 101 or COMM 235; ETEC 246 or ETEC 271; ETEC 422 or concurrent OR ETEC 430 or concurrent.  
Credits: 4

## **ETEC 344 - Industrial Quality Assurance**

Quality assurance as applied to industrial manufacturing operations. One-fourth of this course is used to enhance and expand on applied statistics.

**Prerequisites & Notes:** MATH 240 or MATH 245  
Credits: 4

## **ETEC 346 - Manufacturing and Design**

Product design with an emphasis on material selection and the processes that can be used for the selected material to manufacture the desired part.

**Prerequisites & Notes:** ETEC 246; ETEC 325 or ETEC 327; COMM 101.  
Credits: 4

## **ETEC 351 - Electronics for Engineering Technology I**

Analysis of basic electric circuits, design of simple analog and digital circuits including power supplies, transistor amplifiers, operational amplifiers, timers and logic devices. Laboratory reinforces the circuit concepts presented in the classroom and promotes competent use of basic electronic instruments. Cannot be taken for credit by EET majors.

**Prerequisites & Notes:** PHYS 162; MATH 125 or concurrent.  
Credits: 4

## **ETEC 352 - Electronics for Engineering Technology II**

Analysis and design of advanced analog and digital circuits, three-phase power, magnetic circuits, transformers, DC and AC motors. Cannot be taken for credit by EET majors.

**Prerequisites & Notes:** ETEC 351 and PHYS 162.  
Credits: 4

## **ETEC 354 - Electronics for Engineering Technology III**

The characteristics and use of typical transducers and sensors used to monitor or control industrial processes. Study of programmable logic controllers and other microprocessor-based systems used to monitor and control industrial processes. Cannot be taken for credit by EET majors.

**Prerequisites & Notes:** ETEC 352; EET majors cannot take for credit  
Credits: 4

## **ETEC 361 - Advanced CAD: Assembly and Design Mechanisms**

Advanced topics in computer-aided design and parametric modeling, including advanced part design, top-down assembly design, and modeling and simulation of mechanisms.

**Prerequisites & Notes:** MATH 125; PHYS 161 or PHYS 114 or PHYS 121; ETEC 113.  
Credits: 4

## **ETEC 362 - Advanced CAD: Surface Modeling**

Advanced topics in computer-aided design and parametric modeling with a focus on surface

modeling for creating complex and free-form shapes.

**Prerequisites & Notes:** ETEC 113  
Credits: 4

### **ETEC 371 - Circuit Analysis II**

A second course in DC and AC circuits with increased emphasis on mathematical techniques used in electrical circuit analysis and design. Use of network theorems, vector analysis techniques, polyphase circuits and additional topics. Structured laboratory with emphasis on measurement, theory and applications, test equipment, verification of circuit laws, data analysis and formal report preparation.

**Prerequisites & Notes:** ETEC 271, MATH 124  
Credits: 5

### **ETEC 372 - Electronic Analysis and Design**

A second course in electronic devices and circuits with increased emphasis on mathematical modeling and techniques used in analysis and design. Study of semiconductor theory and devices, small and large signal amplifier configurations, hybrid-pi models, frequency response and multistage circuits. Laboratory with emphasis on practical design, construction, testing and evaluation. Formal report preparation.

**Prerequisites & Notes:** ETEC 272, ETEC 371;  
EET major or written permission  
Credits: 5

### **ETEC 373 - Digital Systems**

An upper-division course in digital system analysis and design including the study of sequential/state machine design techniques and applications with an emphasis on VHDL and ASIC devices. Laboratory projects with formal reports.

**Prerequisites & Notes:** ETEC 272; ETEC 273 or  
CSCI 227.  
Credits: 5

### **ETEC 374 - Microprocessor Applications**

Upper-division study of microprocessors, support devices, and peripheral equipment and their integration into microcomputer systems. Study of various hardware configurations and interfacing

techniques. Application-oriented laboratory experiments and design problems.

**Prerequisites & Notes:** ETEC 274 or CSCI 227;  
ETEC 373  
Credits: 5

### **ETEC 375 - Electronic Systems**

A study designed to acquaint the student with the operation of electronic systems. Feedback systems, multi-phase power systems and solid state control systems. Structured laboratory with emphasis on experimental verification of results, original design, data analysis and formal report preparation.

**Prerequisites & Notes:** ETEC 272  
Credits: 5

### **ETEC 376 - Electrical Power**

A study of electrical power concepts and components. Topics will include complex numbers, three-phase power systems, DC and AC motors and generators, control system components and power electronics. Laboratory investigation of characteristics of above components and systems.

**Prerequisites & Notes:** ETEC 371 and PHYS 162  
or concurrent; or written permission.  
Credits: 4

### **ETEC 377 - Instrumentation**

An introduction to electronic instrumentation techniques. Topics include sensors, signal conditioning circuits and noise reduction. Sensor topics include force, torque, pressure, acceleration and temperature. Signal conditioning topics include bridge circuits, amplifiers, filters and analog-to-digital conversion. Laboratory investigation of characteristics of above components and systems.

**Prerequisites & Notes:** ETEC 379  
Credits: 4

### **ETEC 378 - Network Analysis**

General analysis of linear networks using classical methods, Laplace transforms and computer-aided methods. Topics include single element transients, first- and second-order circuits, transfer function analysis and Bode plots.



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**Prerequisites & Notes:** ETEC 371; MATH 321 or concurrent; EET major or written permission.  
Credits: 4

## **ETEC 379 - Active Linear and Non-Linear Circuits**

Upper-division treatment of active linear and non-linear circuits. Analysis, design, testing, and evaluation of electronic circuits and subsystems with primary emphasis on the application of integrated circuit components and modules. Computer modeling of complex electronic circuits with frequency response, sensitivity and worst-case analysis. Laboratory projects with formal report preparation.

**Prerequisites & Notes:** ETEC 375, ETEC 378 or written permission  
Credits: 5

## **ETEC 380 - Advanced Power Mechanics**

Introduction to engine design and development including calculating efficiency, power, designing cylinder heads and blocks, engine simulation, testing and air flow port development.

**Prerequisites & Notes:** ETEC 280  
Credits: 5

## **ETEC 381 - Advanced Power Transmission**

Principles of automatic transmission function, hardware and controls are covered. Practical approach to manual transmission design including structural housings, geartrain, bearing selection and shift system elements.

**Prerequisites & Notes:** ETEC 225, ETEC 281.  
Credits: 3

## **ETEC 382 - Automotive Electronics**

Basic principles of automotive communication networks and control systems, operation and calibration of sensors and actuators, vehicle wiring harness design considerations, wiring diagrams, diagnostics and troubleshooting.

**Prerequisites & Notes:** ETEC 280  
Credits: 4

## **ETEC 402 - Cooperative Work/Study**

Supervised study of technical problems associated with production and/or management in business and industry. Credit varies according to individual employment circumstances, the degree requirements of the applicant and the extent to which employment is related to major. Repeatable to a maximum of 9 cr.

**Prerequisites & Notes:** Junior status; approval of advisor.  
Credits: 1-9

## **ETEC 405 - Communications Circuits**

A study of communications concepts including analog and frequency modulation and detection methods, r.f. amplifier and oscillator circuits and transmitter and receiver principles. Structured laboratory with emphasis on experimental verification of principles, use of specialized equipment, data analysis and formal report preparation.

**Prerequisites & Notes:** ETEC 375; MATH 321 or concurrent; EET major or written permission.  
Credits: 4

## **ETEC 412 - Industrial Design Internship**

Faculty-supervised industrial design internship with an approved firm, manufacturer or design consultancy. The internship requires a total of 10 weeks (may be more than one internship) of practical application of industrial design skills in a business, public or industrial setting. Repeatable up to 12 credits.

**Prerequisites & Notes:** ETEC 318 or permission of instructor.  
Credits: 4

## **ETEC 413 - UX Design Capstone**

This course is the culminating multidisciplinary design project class for User Experience (UX) Design Minors. Students representing each discipline; psychology, computer science, industrial design and graphic design, come together to design a user experience. This course incorporates all of their skills and knowledge together into a realistic project. The process will include; team management, problem discovery, design research, concept development, prototyping, user testing and development. It may be sponsored by industry

and guided by UX professionals.

**Prerequisites & Notes:** UX Design Minors only. PSY 210; ETEC 311; DSGN 249. Or permission of instructor.

Credits: 4

### **ETEC 414 - Senior Industrial Design I**

Studio course work with a strong focus on art and craftsmanship. Through the design of various products, a validation of artistic expression and technical skills will be realized.

**Prerequisites & Notes:** ETEC 318

Credits: 5

### **ETEC 415 - Industrial Design Internship Presentation**

Follow-up course to ETEC 412. A formal presentation of a recently completed industrial design internship which includes a visual presentation and report. Repeatable up to 3 credits.

**Prerequisites & Notes:** ETEC 412

Credits: 1

### **ETEC 416 - Senior Industrial Design II**

Studio course work with a strong focus on the functional and engineering aspects of industrial design. Emphasis on manufacturability of products with importance placed on materials and processes.

**Prerequisites & Notes:** ETEC 414

Credits: 5

### **ETEC 418 - Senior Industrial Design III**

Studio course work with a strong focus on entrepreneurialism. Business aspects of industrial design are explored and applied in the design projects.

**Prerequisites & Notes:** ETEC 416

Credits: 5

### **ETEC 419 - Directed Research in CAD/CAM**

Research problem in Computer-Aided Design and Manufacturing conducted under supervision.

Repeatable to a maximum of 9 credits, including original course.

**Prerequisites & Notes:** ETEC 361 or ETEC 362; ETEC 322.

Credits: 1-3

### **ETEC 420 - Manufacturing Automation and Robotics**

An introduction to the automation of manufacturing and assembly operations. Topics include design process and design for assembly, parts feeding, sensors and actuators for automation, fundamentals of robotics, including robot programming, programmable logic controllers for industrial applications, and machine vision systems.

**Prerequisites & Notes:** ETEC 322, ETEC 326; ETEC 351 or ETEC 374

Credits: 4

### **ETEC 422 - Manufacturing Project Definition**

Selection, definition and analysis of a problem suitable for senior project, prior to actual project development. Includes consideration of project parameters and implications, analysis of alternative solutions and justification of selected solution. Culminates in writing of formal senior project proposal.

**Prerequisites & Notes:** Co-requisite ETEC 341; and ETEC 444 or concurrent.

Credits: 1

### **ETEC 424 - Manufacturing Implementation**

Follow-up to ETEC 422. Manufacture a product or design an industrial process. Project will be fully documented, including final report and presentation, with performance specifications, functional description, schematics, cost analysis, parts list, photographs, diagrams, and charts.

**Prerequisites & Notes:** ETEC 422

Credits: 4

### **ETEC 425 - Machine Design**

Design and modeling of machine components (gears, bearings, shafts, etc.) with an emphasis on industrial practices. Theoretical dynamics also is included.

**Prerequisites & Notes:** ETEC 225

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Credits: 4

## **ETEC 426A - Advanced Computer Numerical Control - Surfacing and Contours**

CNC programming techniques and requirements for manufacturing components on CNC machining centers, emphasizing programming and applications of three-dimensional surfaces and contours.

**Prerequisites & Notes:** ETEC 322; ETEC 362 or instructor permission.

Credits: 3

## **ETEC 426B - Advanced Computer Numerical Control - Mill/Turn**

CNC programming techniques and requirements for manufacturing components on CNC turning centers, emphasizing programming and applications where live tooling can be applied.

**Prerequisites & Notes:** ETEC 322; ETEC 362 or instructor permission.

Credits: 3

## **ETEC 426C - Advanced Computer Numerical Control - Hi-Speed Machining**

CNC programming techniques and requirements for manufacturing components on CNC turning centers, emphasizing programming and applications where high-speed machining can be applied.

**Prerequisites & Notes:** ETEC 322

Credits: 3

## **ETEC 426D - Advanced Computer Numerical Control - EDM**

CNC programming techniques and requirements for manufacturing components on EDM machines, emphasizing programming and applications where Wire EDM and Ram EDM can be applied.

**Prerequisites & Notes:** ETEC 322

Credits: 3

## **ETEC 427 - Tool Design**

Design of special tooling used in manufacturing processes to include, but not limited to, inspection gauges, fixtures, jigs, assembly fixtures, punch and dies.

**Prerequisites & Notes:** ETEC 322; ETEC 325.

Credits: 4

## **ETEC 428 - Advanced Manufacturing Laboratory**

Students will work together in a team to develop and operate a limited manufacturing run for a product of their own design. This course allows students to implement knowledge they have learned in an industrially styled environment.

**Prerequisites & Notes:** ETEC 420 or instructor permission

Credits: 3

## **ETEC 429 - Directed Research in Manufacturing**

Research under supervision within one of the areas of manufacturing technology. Repeatable 3 times to a maximum of 9 cr.

Credits: 1-3

## **ETEC 430 - Plastics Senior Project - Definition**

Selection, definition, and analysis of a problem suitable for senior project, prior to actual project implementation. Includes consideration of implications, analysis of alternative solutions, justification and detailed development of selected solution. Investigation is detailed in a formal written senior project proposal.

**Prerequisites & Notes:** Senior status. ETEC 341 or concurrent; ETEC 444 or concurrent.

Credits: 1

## **ETEC 431 - Plastics Product Design**

Design principles related to design of products. Analysis of functional requirements, structural properties, aesthetic qualities and cost relationships. Experience in product design and material evaluation.

**Prerequisites & Notes:** ETEC 338 or ETEC 362.

Credits: 3

## **ETEC 432 - Plastics Senior Project - Implementation**

Implementation of project proposed in ETEC 430. Manufacture of a tool, prototype, or product, design an industrial process, investigation of a

material.

**Prerequisites & Notes:** ETEC 430  
Credits: 4

**ETEC 433 - Engineering Polymers**

Structure, properties, processing and applications of engineering polymers. Advanced analysis and testing of polymers for engineering applications.

**Prerequisites & Notes:** ETEC 338 or instructor permission  
Credits: 3

**ETEC 434 - Advanced Composites**

Advanced polymer matrix and reinforcement systems; structural design and analysis; advanced composites processes and automated production systems.

**Prerequisites & Notes:** ETEC 225, ETEC 334, or instructor permission  
Credits: 3

**ETEC 436 - Polymer Compounding**

Principles of polymer formulation and modification. Additives and modifiers, compounding processes and equipment. Use of experimental design in compound formulation.

**Prerequisites & Notes:** ETEC 433, ETEC 444, CHEM 251  
Credits: 3

**ETEC 438 - Directed Research in Plastics**

Selection, development and research, under supervision, within one of the areas of plastics engineering technology. Repeatable 3 times to a maximum of 9 cr.

**Prerequisites & Notes:** ETEC 333; ETEC 433 or ETEC 434 or ETEC 335.  
Credits: 1-3

**ETEC 439 - Directed Research in Woods**

Selection, development and research, under supervision, within one of the areas of wood technology. Repeatable 3 times to a maximum of 9 cr.

**Prerequisites & Notes:** ETEC 231

Credits: 1-3

**ETEC 444 - Data Analysis and Design of Experiments**

A practical approach to Design of Experiments and the analysis of data, including analysis of variance, linear, multiple linear, and nonlinear regression. Emphasis on the proper use and interpretation of the techniques in solving engineering problems rather than on theoretical development. Application of these tools using spreadsheet software.

**Prerequisites & Notes:** ETEC 344 or instructor permission; competence in Excel  
Credits: 4

**ETEC 454 - Embedded Systems**

The advanced study of microcontroller-based hardware and software applied to real-time embedded systems. Includes embedded software design, programming microcontrollers in C, real-time kernels and kernel services, hardware and software applications and testing techniques.

**Prerequisites & Notes:** ETEC 374, CSCI 140  
Credits: 4

**ETEC 455 - Communication Systems**

Upper-division study of modern communications concepts from a systems point of view. Fourier transforms, spectral analysis, analog modulation and detection methods, transmission line theory, radiation and propagation, antennas, and microwave concepts. Structured laboratory with emphasis on measurement theory and applications, test equipment, data analysis and formal report preparation.

**Prerequisites & Notes:** ETEC 405; ETEC 378 and PHYS 163, or concurrent; EET Major or written permission.  
Credits: 4

**ETEC 457 - Automatic Control Systems**

A study of analog control systems and techniques using operational mathematics. Laplace transforms, servo components, transfer functions, signal flow graphs, second-order systems, frequency response analysis, stability criteria and compensation. Laboratory investigation of control

# ENGINEERING TECHNOLOGY

components and systems and computer modeling of control systems.

**Prerequisites & Notes:** ETEC 378

Credits: 4

## **ETEC 461 - CAD Automation**

Introduces the use of programming techniques for creating and manipulating 3D parametric, surface and assembly models in a Computer-Aided Design system. Project work will require the development of an automation solution for product design or manufacturing problem of interest.

**Prerequisites & Notes:** CSCI 138, CSCI 140 or CSCI 141; ETEC 322, ETEC 361 or ETEC 362

Credits: 4

## **ETEC 471 - Project Definition**

Students define objectives and prepare project proposals for ETEC 474.

**Prerequisites & Notes:** ETEC 374

Credits: 2

## **ETEC 474 - Microcomputer-Based Design**

Analysis and design of smart microcomputer-based instrument and control systems. Design and implementation of a microcomputer-based system.

**Prerequisites & Notes:** ETEC 374, ETEC 471

Credits: 4

## **ETEC 475 - Digital Communications**

An upper-division study of modern digital communications concepts and techniques. Topics include sampling, quantizing, digital modulation and detection methods, baseband signaling and line codes, bandpass signaling, synchronization and error detection. Several case examples are presented throughout the course.

**Prerequisites & Notes:** ETEC 374, ETEC 455

Credits: 4

## **ETEC 478 - Digital Signal Processing**

Introduction to the fundamentals of digital signal processing (DSP) and digital filtering. Topics include discrete-time signals, sampling theorem, Discrete Fourier Transform and Fast Fourier Transform, Z-transform, design and analysis of

digital filters including finite impulse response (FIR) filters and infinite impulse response (IIR) filters, and practical applications of DSP. Students will gain both software simulation and hardware hands-on experience in implementing DSP algorithms.

**Prerequisites & Notes:** ETEC 379

Credits: 5

## **ETEC 479 - Directed Research in Electronic Technology**

Advanced study in problems chosen and conducted under supervision. Repeatable 3 times to a maximum of 9 cr.

Credits: 1-3

## **ETEC 480 - Advanced Emission Control**

Emission mechanisms and control strategies in spark and compression ignition engines, emissions testing, and the regulatory and societal reasons for emissions control.

**Prerequisites & Notes:** ETEC 280, ETEC 380

Credits: 3

## **ETEC 481 - Gaseous Fuels**

Study of the various technologies involved in gaseous fuels. Topics include: LPG, CNG and hydrogen as alternative fuels for vehicles, solving the exhaust emissions of gaseous fuels, fuel injection and gaseous fuels, conversion systems, and the infrastructure needed to support gaseous fuels as an alternative to gasoline and diesel fuels.

**Prerequisites & Notes:** ETEC 380

Credits: 4

## **ETEC 484 - Vehicle Design**

Suspension design; chassis design, spring rates, tire design parameters; automobile aerodynamics; and brake system.

**Prerequisites & Notes:** ETEC 280, ETEC 380;

ETEC 225 or concurrent, or permission of instructor.

Credits: 5

## **ETEC 486 - Advanced Vehicle Design**

Advanced body design, ergonomics, aerodynamics, climate control, aesthetic design of automobile interiors and exteriors. Practical work includes wind tunnel model construction and testing.

**Prerequisites & Notes:** ETEC 484

Credits: 5

**ETEC 489 - Directed Research in Power Mechanics**

Advanced study in problems chosen and conducted under supervision. Repeatable 3 times to a maximum of 9 cr.

**Prerequisites & Notes:** ETEC 280, ETEC 380.

Credits: 1-3

# Geology

## Introduction

The natural setting of Western Washington University adjacent to the Cascade Mountains and Salish Sea provides an ideal situation for study of a wide variety of geologic problems.

## Faculty

At the present time the department consists of 14 faculty members who have a broad range of backgrounds covering the entire field of geology. There are about 180 undergraduate students declaring geology majors and approximately 30 graduate students in the department.

**BERNARD A. HOUSEN** (1997) Chair and Professor. BS, University of Washington; MS, PhD, University of Michigan.

**COLIN B. AMOS** (2012) Assistant Professor. BS, University of California - Davis; PhD, University of California - Santa Barbara

**JACQUELINE CAPLAN-AUERBACH** (2006) Associate Professor. BA, Yale University; PhD, University of Hawaii-Manoa.

**DOUGLAS H. CLARK** (1998) Associate Professor. BS, MS, Stanford University; PhD, University of Washington.

**SUSAN M. DEBARI** (1998) Professor. BA, Cornell University; PhD, Stanford University.

**DAVID C. ENGBRETSON** (1983) Professor. BA, Western Washington University; MS, PhD, Stanford University.

**BRADY Z. FOREMAN** (2014) Assistant Professor. BA, Macalester College; MS University of Michigan; PhD University of Wyoming.

**EDWARD E. GEARY** (2013) Professor. BS, Stanford University; MS, PhD, Cornell University.

**THOR A. HANSEN** (1985) Professor. BS, George Washington University; PhD, Yale University.

**DAVID M. HIRSCH** (2001) Associate Professor. BS, University of California-Los Angeles; PhD, University of Texas-Austin.

**SCOTT R. LINNEMAN** (2000) Professor. BA, Carleton College; PhD, University of Wyoming.

**ROBERT J. MITCHELL** (1996) Professor. BS, University of Wisconsin-River Falls; MS, Michigan Technological University; PhD, Michigan Technological University.

**ELIZABETH R. SCHERMER** (1990) Professor. BS, Stanford University; PhD, Massachusetts Institute of Technology.

**PETE STELLING** (2011) Assistant Professor. BA, Western State College, Colorado; PhD, University of Alaska-Fairbanks.

**CHRISTOPHER A. SUCZEK** (1977) Professor. AB, University of California-Berkeley; PhD, Stanford University.

### *Research Associates*

**CLARK M. BLAKE** (1993) AB, University of California-Berkeley; PhD, Stanford University.

**RUSSELL F. BURMESTER** (1978). BS, Stanford University; MA, University of Texas-Austin; PhD, Princeton University.

**ERIC E. GROSSMAN** (2011) BA, University of California, Berkeley, MS, PhD, University of Hawaii.

**BRIAN RUSK** (2011) BS, James Madison University, PhD, University of Oregon.

### *Adjunct Faculty*

**DAVID TUCKER** (2006) BS, MS, Western Washington University.

**PETER WILLING** (1997) BA, University of Washington; MS, PhD, Cornell University.

## Declaration of Major

Some 300-level geology courses give preference to majors during Phase I of registration, so it is important to declare a major as early as possible.

Students can be admitted to the BA or BS major once they have completed GEOL 211. (NOTE: Grades of D-, D, or D+ are not acceptable for major and supporting courses.) Students must apply to the department and complete an advising appointment for admission to the major.

## Geologist License Education Requirements

A professional license is required by law to practice geology in Washington State. The first step toward licensure is passing the National Association of State Boards of Geology (ASBOG) Fundamentals of Geology exam. To qualify to take ASBOG's Fundamentals of Geology exam you must satisfy certain educational requirements. If you obtain a B.S. degree in geology from WWU your educational requirements are met. If you choose a B.A. in geology or a B.S. in geophysics degree you must have a minimum of 36 credits in specific content areas, so please see your departmental advisor for planning if you take one of these degrees and wish to pursue a professional license.

## Departmental Honors and Distinctions

BA or BS students and students in the University Honors program who have completed at least 4 credits of GEOL 490 and have a cumulative GPA of 3.50 or higher meet the requirements for departmental honors.

Those students who have completed at least 4 credits of GEOL 490 and have a cumulative GPA higher than 3.20 meet the requirements for departmental distinction.

## Other Departmental Information

### *Facilities and Equipment*

Geology is a science that studies the earth, including its surface, interior and history and the processes that have altered it through time. It embraces investigation of the natural environment both in the field and in the laboratory. The Geology Department occupies laboratories, classrooms and offices constructed in 1976 in the Environmental Studies Center. Geology laboratory facilities and equipment are available for X-ray diffraction, atomic absorption, sedimentation, air photo interpretation, flume and wave tank studies, paleomagnetic analysis, near-surface geophysics, seismology, geochemistry, and petrography, x-ray fluorescence, laser-ICP-MS. Additional equipment and facilities are available through the Geology Department's affiliation with the Advanced Materials Science and Engineering Center (AMSEC).

### *Programs*

Objectives of the department are varied, including preparation of undergraduate and graduate students for careers as professional geoscientists and also preparation of earth science teachers at the primary and secondary levels.

A wide variety of geologic phenomena in the adjacent Cascade Range and the marine environment of Salish Sea provide a broad spectrum of geologic features for study.

The department offers BA, BAE, BS and MS degrees plus specialized courses in the following subjects: economic geology; environmental geology; geochemistry; geomorphology; geophysics; glacial geology; hydrology; paleomagnetism; paleontology; petrology; sedimentation; stratigraphy; and structure and tectonics.

### *Student Involvement in Research*

The faculty in the Geology Department are active in a wide variety of ongoing research projects that frequently involve undergraduate and graduate students in special projects and thesis projects or provide employment. Some of this research is funded or partially supported from grants to individual faculty members



# GEOLOGY

from the National Science Foundation, U.S. Geological Survey, National Parks Commission, Office of Ecology and geological-related companies. Many of these projects are in the Western Washington region, others include investigations in other parts of the United States, Canada, overseas, or at sea as part of larger oceanographic projects.

## *Writing Proficiency Course Guidelines*

The geology department has a multi-tiered system for upper division writing proficiency courses. Courses are assigned writing proficiency points based on the percentage of the course grade that is determined by writing assignments. A minimum of three writing proficiency points in approved upper-division writing proficiency courses at WWU with a minimum grade of C- is required.

## **Bachelor of Arts**

### **Geology, BA**

Department of Geology, College of Sciences and Technology

#### **75 credits**

#### **Introduction/What is the Study of Geology?**

A Geoscientist is someone who studies the Earth's physical makeup and history. Geology is the science that provides the key to finding new sources of useful Earth materials and to understanding Earth processes that affect our lives. Geoscientists provide basic information to society for solving problems and establishing policy for resource management, environmental protection, public health, safety and welfare.

Geoscientists are curious about the Earth. How was it formed? How is it changing? What effects will shrinking glaciers have on the oceans and climate? How do islands form? What makes a continent move? Why did the dinosaurs become extinct? What makes a mountain?

Geoscientists are concerned about the Earth. Is there a global warming trend? How and where should we dispose industrial wastes? How can we fill society's growing demands for energy and conserve natural resources for future generations?

Geoscientists enjoy the Earth. It is an outdoor laboratory filled with opportunities to observe Earth processes in action. By applying knowledge of forces that shape the Earth, Geoscientists seek to reconstruct the past and anticipate the future.

#### **Why Consider a Geology Major?**

Do you like to know why and how things work? Do you enjoy the outdoors? Are you concerned about the environment? Are you interested in travel? Do you like to analyze things? Are science and nature among your favorite subjects? Have you ever wondered why the Earth appears as it does? If you answer "yes" to most of these questions the geosciences could offer a good career for you.

The BA degree in geology is designed for students who want to study geology, but who are not intending to work as professional geologists. This degree is appropriate for someone interested in pursuing a liberal arts education with a less rigorous course of study in geology and supporting sciences than students in the BS degree. Thus students are allowed more flexibility for additional courses that complement their goals. An accompanying minor in one of the sciences or in mathematics is recommended.

#### Contact Information

##### **Department Chair**

Bernie Housen  
Environmental Studies 240A

##### **Undergraduate Advisor**

Theresa Tripp  
Environmental Studies 240

360-650-3581  
Bernie.Housen@wwu.edu

360-650-3582  
Theresa.Tripp@wwu.edu

#### Sample Careers

U.S. Geological Survey | Department of Natural Resources | Oil and Mining Companies | NASA | U.S. Forest Service | U.S. Army Corps of Engineers | Explorations Geologist | Museum Curator | Climate Change Scientist | Earthquake or Volcano Monitor | Engineering Geologist

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

For more information on the Geology Department go to Declaration of Major.

Some 300-level geology courses give preference to majors during Phase I of registration, so it is important to declare a major as early as possible.

Students are admitted to the BA or BS major once they have completed GEOL 211. (**NOTE:** Grades of D-, D, or D+ are not acceptable for major and supporting courses.) Students must apply to the department for admission to the major.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- CHEM 121 - General Chemistry I
  - Choose one of the following options:
    - GEOL 211 - Physical Geology
    - OR
    - GEOL 101 - Introduction to Geology
    - and
    - GEOL 211A - Physical Geology Review
    - OR
    - SCED 202 - Matter and Energy in Earth Systems
    - and
    - GEOL 211A - Physical Geology Review
  - GEOL 212 - Historical Geology
  - GEOL 213 - GIS in Geology
  - GEOL 306 - Mineralogy
  - GEOL 310 - Geomorphology
  - GEOL 318 - Structural Geology
  - GEOL 406 - Igneous and Metamorphic Petrology
  - MATH 124 - Calculus and Analytic Geometry I  
(GEOL 311 may be taken in place of GEOL 306 and GEOL 406)
- 15-19 credits under advisement from geology courses 200 level and above for a total of 45 credits.
- Choose either:
    - PHYS 114 - Principles of Physics I
    - PHYS 115 - Principles of Physics II
    - or
    - PHYS 161 - Physics with Calculus I
    - PHYS 162 - Physics with Calculus II

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(preferred and required for graduate programs)

□ 10 additional credits selected from:

- MATH 125 - Calculus and Analytic Geometry II
- MATH 240 - Introduction to Statistics
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity

## Departmental Honors and Distinctions

BA or BS students and students in the University Honors program who have completed at least 4 credits of GEOL 490 and have a cumulative GPA of 3.50 or higher meet the requirements for departmental honors.

Those students who have completed at least 4 credits of GEOL 490 and have a cumulative GPA higher than 3.20 meet the requirements for departmental distinction.

## Bachelor of Arts in Education

### Earth Science – Elementary, BAE

Department of Geology, College of Sciences and Technology

#### 73-85 credits

#### Introduction/What is the Study of Earth Science - Elementary?

A geoscientist is someone who studies the Earth's physical makeup and history. Geology is the science that provides the key to finding new sources of useful Earth materials and to understanding Earth processes that affect our lives. Geoscientists provide basic information to society for solving problems and establishing policy for resource management, environmental protection, public health, safety and welfare.

Geoscientists are curious about the Earth. How was it formed? How is it changing? What effects will shrinking glaciers have on the oceans and climate? How do islands form? What makes a continent move? Why did the dinosaurs become extinct? What makes a mountain?

Geoscientists are concerned about the Earth. Is there a global warming trend? How and where should we dispose industrial wastes? How can we fill society's growing demands for energy and conserve natural resources for future generations.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in Elementary Education offered through Woodring College of Education.

#### Why Consider an Earth Science - Elementary Major?

Do you like to know why and how things work? Do you enjoy the outdoors? Are you concerned about the environment? Are you interested in travel? Do you like to analyze things? Are science and nature among your favorite subjects? Have you ever wondered why the Earth appears as it does? If you answer "yes" to most of these questions the geosciences may be the career for you.

Contact Information		
<b>Department Chair</b>	<b>Undergraduate Advisor</b>	<b>Education Advisor</b>
Bernie Housen	Theresa Tripp	Scott Linneman
Environmental Studies 240A	Environmental Studies 240	Environmental Studies
360-650-3581	360-650-3582	340
Bernie.Housen@wwu.edu	Theresa.Tripp@wwu.edu	

**Elementary Education  
Professional Program Information**  
Miller Hall 300  
360-650-3336  
<http://www.wce.wvu.edu/Depts/ELED>

**Teacher Education Admissions**  
Miller Hall 150  
360-650-3313  
<http://www.wce.wvu.edu/admiss>

360-650-7207  
Scott.Linneman@wvu.edu  
**Education Advisor**  
Susan DeBari  
Environmental Studies  
237  
360-650-3588  
debari@geol.wvu.edu  
**Elementary Education  
Professional Program  
Advisor and Program  
Manager**  
Ellen Kreider  
Miller Hall 301D  
360-650-7948  
Ellen.Kreider@wvu.edu

#### Sample Careers

Elementary Teacher

#### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in elementary education. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements. This major does not lead to an endorsement in Earth & Space Science. For more information on the Geology Department go to Declaration of Major.

Some 300-level geology courses give preference to majors during Phase I of registration, so it is important to declare a major as early as possible.

Students are admitted to the BA or BS major once they have completed GEOL 211. (NOTE: Grades of D-, D, or D+ are not acceptable for major and supporting courses.) Students must apply to the department for admission to the major.

### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

#### Requirements

- CHEM 121 - General Chemistry I
- GEOL 212 - Historical Geology
- GEOL 213 - GIS in Geology
- GEOL 252 - The Earth and Its Weather
- GEOL 310 - Geomorphology
- GEOL 340 - Geological Oceanography
- MATH 114 - Precalculus I
- SCED 201 - Matter and Energy in Physical Systems
- SCED 202 - Matter and Energy in Earth Systems

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- SCED 203 - Matter and Energy in Life Systems
- SCED 204 - Matter and Energy in Chemical Systems
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science
- SCED 492 - Field Experience in Middle School Science
- One course from:
  - GEOL 211 - Physical Geology
  - GEOL 211A - Physical Geology Review
- Choose either:
  - GEOL 311 - Earth Materials
  - OR the following pair of courses
  - GEOL 306 - Mineralogy AND
  - GEOL 406 - Igneous and Metamorphic Petrology
- One course from:
  - PHYS 101 - Physics Analysis
  - PHYS 104 - Physics Applications
- One course from:
  - ASTR 103 - Introduction to Astronomy
  - ASTR 113 - Sun, Moon, and Planets
- Electives (choose one of the following):
  - GEOL 214 - Environmental Geology
  - GEOL 303 - Dinosaurs and Their Environment
  - GEOL 308 - Earthquakes
  - GEOL 309 - Volcanology
  - GEOL 316 - Research in Marine Paleontology
  - GEOL 372 - Watershed Hydrology
  - GEOL 414 - Geology of Washington
  - GEOL 415 - Stratigraphy and Sedimentation
  - GEOL 430 - Image Interpretation
  - GEOL 440 - Glacial Geology

### Additional Requirements

## Elementary Education Professional Program Requirements (103-104 credits)

Department of Elementary Education, Woodring College of Education

### Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

### Admission and Declaration Process

Admission Requirements

### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

## Professional Studies Core (25 credits)

- ELED 301 - Educational Psychology I: Development and Individual Differences
- ELED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Basic Instructional Technology Skills
- I T 442 - Classroom Use of Instructional Technology (Elementary)
- SPED 364 - Teaching Each Student

## Elementary Program — Methods, Curriculum Content, and Field Experiences (78-79 credits)

 One course from:

- ART 398 - Integrated Arts for Elementary Educators
- DNC 398 - Integrated Arts for Elementary Educators
- MUS 398 - Integrated Arts for Elementary Educators
- THTR 398 - Integrated Arts for Elementary Educators

 One course from:

- ART 380 - Art Educating the Child
- DNC 433 - Creative Movement for Educators With Lab
- MUS 361 - Music for Elementary Teachers
- THTR 350 - Theatre for Youth
- THTR 351 - Creative Pedagogy
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

## Departmental Honors

BA or BS students and students in the University Honors program who have completed at least 4 credits of GEOL 490 and have a cumulative GPA of 3.50 or higher meet the requirements for departmental honors. Those students who have completed at least 4 credits of GEOL 490 and have a cumulative GPA higher than 3.20 meet the requirements for departmental distinction.

## Earth Science – Secondary, BAE

Department of Geology, College of Sciences and Technology

### 75-90 credits

#### Introduction/What is the Study of Earth Science - Secondary?

A geoscientist is someone who studies the Earth's physical makeup and history. Geology is the science that provides the key to finding new sources of useful Earth materials and to understanding Earth processes that affect our lives. Geoscientists provide basic information to society for solving problems and establishing policy for resource management, environmental protection, public health, safety and welfare.

Geoscientists are curious about the Earth. How was it formed? How is it changing? What effects will shrinking glaciers have on the oceans and climate? How do islands form? What makes a continent move? Why did the dinosaurs become extinct? What makes a mountain?

Geoscientists are concerned about the Earth. Is there a global warming trend? How and where should we dispose industrial wastes? How can we fill society's growing demands for energy and conserve natural resources for future generations.

Geoscientists enjoy the Earth. It is an outdoor laboratory filled with opportunities to observe Earth processes in action. By applying knowledge of forces that shape the Earth, geoscientists seek to reconstruct the past and anticipate the future.

This major must be accompanied by the professional preparation program in secondary education offered through Woodring College of Education. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

#### Why Consider an Earth Science - Secondary Major?

Do you like to know why and how things work? Do you enjoy the outdoors? Are you concerned about the environment? Are you interested in travel? Do you like to analyze things? Are science and nature among your favorite subjects? Have you ever wondered why the Earth appears as it does? Would you like to share this information with middle or high school students? If you answer "yes" to most of these questions the geosciences could offer a good career for you.

#### Contact Information

##### Geology Undergraduate Advisor

Theresa Tripp  
Environmental Studies 240  
360-650-3582  
Theresa.Tripp@wwu.edu

##### Earth Science Education Advisor

Scott Linneman  
Environmental Studies 340  
360-650-7207  
Scott.Linneman@wwu.edu

##### Earth Science Education Advisor

Susan DeBari  
Environmental Studies 327  
360-650-3588  
debari@geol.wwu.edu

##### Secondary Education Professional Program Information Program Manager

Janna Cecka  
Miller Hall 401C  
360-650-3347  
Janna.Cecka@wwu.edu

##### Secondary Education Program Coordinator

Debbie Gramm  
Miller Hall 401A  
360-650-3327  
Debbie.Gramm@wwu.edu

#### Sample Careers

Secondary Education Teacher (Grades 5-12)

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

The geology department recommends for teaching endorsement those students who have satisfactorily completed requirements for the bachelor's degree in education with 1) an earth science secondary major or 2) a geology minor combined with a major in one of the other physical or biological sciences.

This program must be accompanied by the professional preparation program in secondary education. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

This major leads to an endorsement in Earth & Space Science.

Go to the Geology Department website for more information on Declaration of Major.

Some 300-level geology courses give preference to majors during Phase I of registration, so it is important to declare a major as early as possible.

Students are admitted to the BA or BS major once they have completed GEOL 211. (NOTE: Grades of D-, D, or D+ are not acceptable for major and supporting courses.) Students must apply to the department for admission to the major.

**Grade Requirements**

Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

**Requirements**

- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- GEOL 212 - Historical Geology
- GEOL 213 - GIS in Geology
- GEOL 252 - The Earth and Its Weather
- GEOL 310 - Geomorphology
- GEOL 340 - Geological Oceanography
- MATH 240 - Introduction to Statistics
- PHYS 114 - Principles of Physics I
- PHYS 115 - Principles of Physics II
- SCED 370 - Science and Society
- SCED 481 - Fundamentals of Teaching Science
- SCED 491 - Methods in Secondary Education for Science Teachers
- One course from:
  - GEOL 211 - Physical Geology
  - GEOL 211A - Physical Geology Review
- Choose either:
  - GEOL 311 - Earth Materials OR
  - GEOL 306 - Mineralogy AND
  - GEOL 406 - Igneous and Metamorphic Petrology
- One course from:
  - ASTR 103 - Introduction to Astronomy
  - ASTR 113 - Sun, Moon, and Planets



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- Choose either:
  - MATH 114 - Precalculus I and
  - MATH 115 - Precalculus II
  - or complete MATH 124 - Calculus and Analytic Geometry I
- Electives (choose two of the following):
  - GEOL 308 - Earthquakes
  - GEOL 309 - Volcanology
  - GEOL 314 - Engineering Geology
  - GEOL 316 - Research in Marine Paleontology
  - GEOL 318 - Structural Geology
  - GEOL 407 - Advanced Petrography
  - GEOL 414 - Geology of Washington
  - GEOL 415 - Stratigraphy and Sedimentation
  - GEOL 430 - Image Interpretation
  - GEOL 440 - Glacial Geology

### Additional Requirements

### Secondary Education Professional Program Requirements (68 credits)

- SEC 301 - Educational Psychology I: Development and Individual Differences
- SEC 302 - Educational Psychology II: Motivation, Learning and Assessment
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching Laboratory
- SEC 435 - Middle Level Practicum
- SEC 436 - Secondary School Practicum
- SEC 444 - Supporting Teaching and Learning with Technology
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

### Departmental Honors

BA or BS students and students in the University Honors program who have completed at least 4 credits of GEOL 490 and have a cumulative GPA of 3.50 or higher meet the requirements for departmental honors. Those students who have completed at least 4 credits of GEOL 490 and have a cumulative GPA higher than 3.20 meet the requirements for departmental distinction.

### **Earth Science/General Science – Secondary, BAE**

Combined major offered by the Department of Geology, College of Sciences and Technology and the Department of Science Education, College of Sciences and Technology.

### **95-109 credits**

### **Introduction/What is the Study of Earth Science/General Science - Secondary?**

A geoscientist is someone who studies the Earth's physical makeup and history. Geology is the science that provides the key to finding new sources of useful Earth materials and to understanding Earth processes that affect our lives. Geoscientists provide basic information to society for solving problems and establishing policy for resource management, environmental protection, public health, safety and welfare.

Geoscientists are curious about the Earth. How was it formed? How is it changing? What effects will shrinking glaciers have on the oceans and climate? How do islands form? What makes a continent move? Why did the dinosaurs become extinct? What makes a mountain?

Geoscientists are concerned about the Earth. Is there a global warming trend? How and where should we dispose industrial wastes? How can we fill society's growing demands for energy and conserve natural resources for future generations.

Geoscientists enjoy the Earth. It is an outdoor laboratory filled with opportunities to observe Earth processes in action. By applying knowledge of forces that shape the Earth, geoscientists seek to reconstruct the past and anticipate the future.

This major must be accompanied by the professional preparation program in secondary education offered through Woodring College of Education. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

### **Why Consider an Earth Science/General Science - Secondary Major?**

Do you like to know why and how things work? Do you enjoy the outdoors? Are you concerned about the environment? Are you interested in travel? Do you like to analyze things? Are science and nature among your favorite subjects? Have you ever wondered why the Earth appears as it does? Would you like to share this information with middle or high school students? If you answer "yes" to most of these questions the geosciences could offer a good career for you.

#### Contact Information

##### **Undergraduate Advisor**

Theresa Tripp  
Environmental Studies 240  
360-650-3582  
Theresa.Tripp@wwu.edu

##### **Education Advisors**

Scott Linneman  
Environmental Studies 340  
360-650-7207  
Scott.Linneman@wwu.edu  
Susan DeBari  
Environmental Studies 237  
360-650-3588  
debari@geol.wwu.edu

##### **General Science Education Advisor**

Edward E. Geary  
Science, Mathematics, &  
Technology Education 250D  
360-650-3637  
Edward.Geary@wwu.edu

##### **Secondary Education Website**

<http://www.wce.wwu.edu/Depts/SEC>

##### **Secondary Education**

##### **Professional Program Information Program Manager**

Janna Cecka  
Miller Hall 401C  
360-650-3347  
Janna.Cecka@wwu.edu

##### **Secondary Education Program Coordinator**

Debbie Gramm  
Miller Hall 401A  
360-650-3327  
Debbie.Gramm@wwu.edu

#### Sample Careers

Secondary Education Teacher (Grades 5-12)

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

The geology department recommends for teaching endorsement those students who have satisfactorily completed requirements for the bachelor's degree in education with 1) an earth science secondary major or 2) a geology minor combined with a major in one of the other physical or biological sciences.

# GEOLOGY

This program must be accompanied by the professional preparation program in secondary education. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

This major leads to recommendation for teaching endorsements in Earth & Space Science and Science.

For more information on the Geology Department go to Declaration of Major.

Some 300-level geology courses give preference to majors during Phase I of registration, so it is important to declare a major as early as possible.

Students are admitted to the BA or BS major once they have completed GEOL 211. (NOTE: Grades of D-, D, or D+ are not acceptable for major and supporting courses.) Students must apply to the department for admission to the major.

## Grade Requirements

Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

## Requirements

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 251 - Elementary Organic Chemistry
- GEOL 212 - Historical Geology
- GEOL 213 - GIS in Geology
- GEOL 252 - The Earth and Its Weather
- GEOL 310 - Geomorphology
- GEOL 340 - Geological Oceanography
- MATH 240 - Introduction to Statistics
- SCED 370 - Science and Society
- SCED 481 - Fundamentals of Teaching Science
- SCED 491 - Methods in Secondary Education for Science Teachers
- One course from:
  - GEOL 211 - Physical Geology
  - GEOL 211A - Physical Geology Review
- Choose either:
  - GEOL 311 - Earth Materials OR
  - GEOL 306 - Mineralogy AND
  - GEOL 406 - Igneous and Metamorphic Petrology
- One course from:
  - ASTR 103 - Introduction to Astronomy
  - ASTR 113 - Sun, Moon, and Planets
- Choose either:
  - MATH 114 - Precalculus I and
  - MATH 115 - Precalculus II
  - or complete MATH 124 - Calculus and Analytic Geometry I
- Choose either:

- PHYS 114 - Principles of Physics I
- PHYS 115 - Principles of Physics II
- PHYS 116 - Principles of Physics III
- or
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III
- At least one elective from:
  - GEOL 308 - Earthquakes
  - GEOL 309 - Volcanology
  - GEOL 314 - Engineering Geology
  - GEOL 316 - Research in Marine Paleontology
  - GEOL 318 - Structural Geology
  - GEOL 372 - Watershed Hydrology
  - GEOL 407 - Advanced Petrography
  - GEOL 414 - Geology of Washington
  - GEOL 415 - Stratigraphy and Sedimentation
  - GEOL 430 - Image Interpretation
  - GEOL 440 - Glacial Geology

#### Additional Requirements

#### Secondary Education Professional Program Requirements (68 credits)

- □ I T 444 - Classroom Use of Instructional Technology (Secondary)
- □ SEC 410 - Dynamics of Teaching
- □ SEC 411 - Philosophical Foundations of Education
- □ SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- □ SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- □ SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- □ SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- □ SEC 433 - Teaching Laboratory
- □ SEC 435 - Middle Level Practicum
- □ SEC 436 - Secondary School Practicum
- □ SEC 495 - Internship - Secondary
- □ SPED 363 - Secondary Students With Special Needs

#### Departmental Honors

BA or BS students and students in the University Honors program who have completed at least 4 credits of GEOL 490 and have a cumulative GPA of 3.50 or higher meet the requirements for departmental honors. Those students who have completed at least 4 credits of GEOL 490 and have a cumulative GPA higher than 3.20 meet the requirements for departmental distinction.

## Bachelor of Science

### Geology - Geology Concentration, BS

Department of Geology, College of Sciences and Technology

## 97-108 credits

### Introduction/What is the Study of Geology?

A geoscientist is someone who studies the Earth's physical makeup and history. Geology is the science that provides the key to finding new sources of useful Earth materials and to understanding Earth processes that affect our lives. Geoscientists provide basic information to society for solving problems and establishing policy for resource management, environmental protection, public health, safety and welfare.

Geoscientists are curious about the Earth. How was it formed? How is it changing? What effects will shrinking glaciers have on the oceans and climate? How do islands form? What makes a continent move? Why did the dinosaurs become extinct? What makes a mountain?

Geoscientists are concerned about the Earth. Is there a global warming trend? How and where should we dispose industrial wastes? How can we fill society's growing demands for energy and conserve natural resources for future generations?

Geoscientists enjoy the Earth. It is an outdoor laboratory filled with opportunities to observe Earth processes in action. By applying knowledge of forces that shape the Earth, Geoscientists seek to reconstruct the past and anticipate the future.

### Why Consider a Geology Concentration in Geology Major?

Do you like to know why and how things work? Do you enjoy the outdoors? Are you concerned about the environment? Are you interested in travel? Do you like to analyze things? Are science and nature among your favorite subjects? Have you ever wondered why the Earth appears as it does? If you answer "yes" to most of these questions the Geosciences could offer a good career for you.

This option is designed to provide students with a broad background in geology, with advanced preparation in earth materials, structural geology, and tectonics. Completion of this program will prepare students for a variety of careers in geology or graduate work in geology. This program is recommended for students who are preparing to become professional geologists and intend to enter industry or enroll in a graduate program upon completion of the degree.

#### Contact Information

##### Department Chair

Bernie Housen  
Environmental Studies 240A  
360-650-3581  
Bernie.Housen@wwu.edu

##### Undergraduate Advisor

Theresa Tripp  
Environmental Studies 240  
360-650-3582  
Theresa.Tripp@wwu.edu

#### Sample Careers

U.S. Geological Survey | Departmental of Natural Resources | Oil Exploration | Mining Geologist | NASA | U.S. Forest Service | Engineering Geologist

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

For more information on the Geology Department go to Declaration of Major.

Some 300-level geology courses give preference to majors during Phase I of registration, so it is important to declare a major as early as possible.

Students intending to pursue graduate study are strongly advised to take Math 224 or 204, PHYS 123 and other science support courses appropriate to the specialty.

Students must complete both the Core Program and one of the three concentrations.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

#### Core Program

- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- Choose one of the following options:
  - GEOL 211 - Physical Geology
    - OR
  - GEOL 101 - Introduction to Geology
    - and
  - GEOL 211A - Physical Geology Review
    - OR
  - SCED 202 - Matter and Energy in Earth Systems
    - and
  - GEOL 211A - Physical Geology Review
- GEOL 212 - Historical Geology
- GEOL 213 - GIS in Geology
- GEOL 306 - Mineralogy
- GEOL 310 - Geomorphology
- GEOL 318 - Structural Geology
- GEOL 352 - Introduction to Geophysics
- GEOL 406 - Igneous and Metamorphic Petrology
- GEOL 409 - Field Methods and Theory
- GEOL 410 - Geologic Mapping
- GEOL 415 - Stratigraphy and Sedimentation
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry II
- or
  - MATH 134 - Calculus I Honors
  - MATH 135 - Calculus II Honors
- or
  - MATH 138 - Accelerated Calculus

#### Geology Concentration courses:

- GEOL 316 - Research in Marine Paleontology
- GEOL 407 - Advanced Petrography
- One of:
  - MATH 203 - Linear Algebra and Differential Equations I
  - MATH 204 - Elementary Linear Algebra
  - MATH 224 - Multivariable Calculus and Geometry I
  - MATH 341 - Probability and Statistical Inference
- Two additional 400-level geology courses. We recommend two from:

## GEOLOGY

- GEOL 411 - Field Geology of Western United States
- GEOL 412 - Tectonic Geomorphology
- GEOL 423 - Advanced Igneous Petrology
- GEOL 424 - Advanced Sedimentary Petrology
- GEOL 425 - Advanced Metamorphic Petrology
- GEOL 428 - Depositional Environments
- GEOL 430 - Image Interpretation
- GEOL 432 - Ore Deposits
- GEOL 450 - Advanced Topics in Structural Geology
- GEOL 451 - Active Tectonics Seminar
- GEOL 454 - Magnetic Fabrics and Geologic Processes
- GEOL 456 - Principles of Orogeny Seminar
- GEOL 463 - Introduction to Seismology
- GEOL 490 - Senior Thesis (Complete at least 4 credits. This course requires senior standing and successful application to the Geology Department approving the thesis topic.)

### Departmental Honors

BA or BS students and students in the University Honors program who have completed at least 4 credits of GEOL 490 and have a cumulative GPA of 3.50 or higher meet the requirements for departmental honors. Those students who have completed at least 4 credits of GEOL 490 and have a cumulative GPA higher than 3.20 meet the requirements for departmental distinction.

## **Geology — Environmental and Engineering Geology Concentration, BS**

Department of Geology, College of Sciences and Technology

### **97-107 credits**

#### **Introduction/What is the Study of Geology?**

A geoscientist is someone who studies the Earth's physical makeup and history. Geology is the science that provides the key to finding new sources of useful Earth materials and to understanding Earth processes that affect our lives. Geoscientists provide basic information to society for solving problems and establishing policy for resource management, environmental protection, public health, safety and welfare.

Geoscientists are curious about the Earth. How was it formed? How is it changing? What effects will shrinking glaciers have on the oceans and climate? How do islands form? What makes a continent move? Why did the dinosaurs become extinct? What makes a mountain?

Geoscientists are concerned about the Earth. Is there a global warming trend? How and where should we dispose industrial wastes? How can we fill society's growing demands for energy and conserve natural resources for future generations?

Geoscientists enjoy the Earth. It is an outdoor laboratory filled with opportunities to observe Earth processes in action. By applying knowledge of forces that shape the Earth, Geoscientists seek to reconstruct the past and anticipate the future.

#### **Why Consider an Environmental Geology Concentration in Geology Major?**

Do you like to know why and how things work? Do you enjoy the outdoors? Are you concerned about the environment? Are you interested in travel? Do you like to analyze things? Are science and nature among your favorite subjects? Have you ever wondered why the Earth appears as it does? If you answer "yes" to most of these questions the Geosciences could offer a good career for you.

This option is designed to provide students with a general background in the surficial and hydrologic processes required for the involvement in site assessments, groundwater investigations, hazard evaluations, watershed

analyses, stream characterization and restoration, land use planning, location of waste disposal sites and other projects that involve the Earth and the activities of humankind. This option is also suitable preparation for graduate work in geology or environmental sciences.

This program is recommended for students who are preparing to become professional geologists and intend to enter industry or enroll in a graduate program upon completion of the degree.

#### Contact Information

##### Department Chair

Bernie Housen  
Environmental Studies 240A  
360-650-3581  
Bernie.Housen@wwu.edu

##### Undergraduate Advisor

Theresa Tripp  
Environmental Studies 240  
360-650-3582  
Theresa.Tripp@wwu.edu

#### Sample Careers

U.S. Geological Survey | Departmental of Natural Resources | Oil Exploration | Mining Geologist | NASA | U.S. Forest Service | Engineering Geologist

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

For more information on the Geology Department go to Declaration of Major.

Some 300-level geology courses give preference to majors during Phase I of registration, so it is important to declare a major as early as possible.

This option is designed to provide students with a general background in the surficial and hydrologic processes required for the involvement in site assessments, groundwater investigations, hazard evaluations, watershed analyses, stream characterization and restoration, land use planning, location of waste disposal sites and other projects that involve the Earth and the activities of humankind. This option is also suitable preparation for graduate work in geology or environmental sciences.

Students intending to pursue graduate study are strongly advised to take Math 224 or 204, PHYS 123 and other science support courses appropriate to the specialty.

Students must complete both the Core Program and one of the three concentrations.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

##### Core Program

- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- Choose one of the following options:
  - GEOL 211 - Physical Geology  
OR
  - GEOL 101 - Introduction to Geology  
and
  - GEOL 211A - Physical Geology Review  
OR
  - SCED 202 - Matter and Energy in Earth Systems  
and



# GEOLOGY

GEOL 211A - Physical Geology Review

- GEOL 212 - Historical Geology
- GEOL 213 - GIS in Geology
- GEOL 306 - Mineralogy
- GEOL 310 - Geomorphology
- GEOL 318 - Structural Geology
- GEOL 352 - Introduction to Geophysics
- GEOL 406 - Igneous and Metamorphic Petrology
- GEOL 409 - Field Methods and Theory
- GEOL 410 - Geologic Mapping
- GEOL 415 - Stratigraphy and Sedimentation
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II

Choose either:

- MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry II
- or
- MATH 134 - Calculus I Honors
  - MATH 135 - Calculus II Honors

or

- MATH 138 - Accelerated Calculus

Environmental and Engineering Geology Concentration courses

- GEOL 314 - Engineering Geology
- GEOL 473 - Hydrogeology

One course from:

- MATH 203 - Linear Algebra and Differential Equations I
- MATH 204 - Elementary Linear Algebra
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 341 - Probability and Statistical Inference

2 additional 400-level geology courses. We recommend two from:

- GEOL 412 - Tectonic Geomorphology
- GEOL 413 - Fluvial Geomorphology
- GEOL 430 - Image Interpretation
- GEOL 440 - Glacial Geology
- GEOL 461 - Analytical Geochemistry
- GEOL 462 - Hydrogeochemistry
- GEOL 470 - Landslides and Slope Stability
- GEOL 472 - Surface Water Hydrology
- GEOL 474 - Ground Water Contamination
- GEOL 490 - Senior Thesis (Complete at least 4 credits. This course requires senior standing and successful application to the Geology Department approving the thesis topic.)

## Departmental Honors

BA or BS students and students in the University Honors program who have completed at least 4 credits of GEOL 490 and have a cumulative GPA of 3.50 or higher meet the requirements for departmental honors.

Those students who have completed at least 4 credits of GEOL 490 and have a cumulative GPA higher than 3.20 meet the requirements for departmental distinction.

## Geology — Geophysics Concentration, BS

Department of Geology, College of Sciences and Technology

### 97-108 credits

#### Introduction/What is the Study of Geology?

A geoscientist is someone who studies the Earth's physical makeup and history. Geology is the science that provides the key to finding new sources of useful Earth materials and to understanding Earth processes that affect our lives. Geoscientists provide basic information to society for solving problems and establishing policy for resource management, environmental protection, public health, safety and welfare.

Geoscientists are curious about the Earth. How was it formed? How is it changing? What effects will shrinking glaciers have on the oceans and climate? How do islands form? What makes a continent move? Why did the dinosaurs become extinct? What makes a mountain?

Geoscientists are concerned about the Earth. Is there a global warming trend? How and where should we dispose industrial wastes? How can we fill society's growing demands for energy and conserve natural resources for future generations?

Geoscientists enjoy the Earth. It is an outdoor laboratory filled with opportunities to observe Earth processes in action. By applying knowledge of forces that shape the Earth, Geoscientists seek to reconstruct the past and anticipate the future.

#### Why Consider a Geophysics Major?

Do you like to know why and how things work? Do you enjoy the outdoors? Are you concerned about the environment? Are you interested in travel? Do you like to analyze things? Are science and nature among your favorite subjects? Have you ever wondered why the Earth appears as it does? If you answer "yes" to most of these questions the Geosciences could offer a good career for you.

This option will prepare students to apply various geophysical techniques to the study of the Earth.

Completion of this concentration will prepare students for careers in environmental geophysics or graduate work in geotectonics and other quantitative aspects of Earth Science. This program is recommended for students who are preparing to become professional geologists and intend to enter industry or enroll in a graduate program upon completion of the degree.

#### Contact Information

##### Department Chair

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Environmental Studies 240A  
360-650-3581  
Bernie.Housen@wwu.edu

##### Undergraduate Advisor

Theresa Tripp  
Environmental Studies 240  
360-650-3582  
Theresa.Tripp@wwu.edu

#### Sample Careers

U.S. Geological Survey | Departmental of Natural Resources | Oil Exploration | Mining Geologist | NASA | U.S. Forest Service | Engineering Geologist

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

For more information on the Geology Department go to Declaration of Major.

Some 300-level geology courses give preference to majors during Phase I of registration, so it is important to declare a major as early as possible. Students must apply to the department for admission to the major.

Students intending to pursue graduate study are strongly advised to take MATH 224 or 204, PHYS 123 and other science support courses appropriate to the specialty.

Students must complete both the Core Program and one of the three concentrations.

# GEOLOGY

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

### Core Program

- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- Choose one of the following options:
  - GEOL 211 - Physical Geology OR
  - GEOL 101 - Introduction to Geology AND
  - GEOL 211A - Physical Geology ReviewOR
  - SCED 202 - Matter and Energy in Earth Systems AND
  - GEOL 211A - Physical Geology Review
- GEOL 212 - Historical Geology
- GEOL 213 - GIS in Geology
- GEOL 306 - Mineralogy
- GEOL 310 - Geomorphology
- GEOL 318 - Structural Geology
- GEOL 352 - Introduction to Geophysics
- GEOL 406 - Igneous and Metamorphic Petrology
- GEOL 409 - Field Methods and Theory
- GEOL 410 - Geologic Mapping
- GEOL 415 - Stratigraphy and Sedimentation
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry IIor
  - MATH 134 - Calculus I Honors
  - MATH 135 - Calculus II Honorsor
  - MATH 138 - Accelerated Calculus

### Geophysics Concentration courses

- GEOL 452 - Applied Geophysics
- Take two from:
  - GEOL 412 - Tectonic Geomorphology
  - GEOL 430 - Image Interpretation
  - GEOL 432 - Ore Deposits
  - GEOL 450 - Advanced Topics in Structural Geology
  - GEOL 451 - Active Tectonics Seminar

- GEOL 453 - Plate Tectonics
- GEOL 454 - Magnetic Fabrics and Geologic Processes
- GEOL 455 - Climate-Related Geologic Hazards
- GEOL 456 - Principles of Orogeny Seminar
- GEOL 457 - Practical Paleomagnetism
- GEOL 463 - Introduction to Seismology
- GEOL 464 - Mantle Processes
- GEOL 470 - Landslides and Slope Stability
- GEOL 472 - Surface Water Hydrology
- GEOL 473 - Hydrogeology
- GEOL 490 - Senior Thesis (Complete at least 4 credits. This course requires senior standing and successful application to the Geology Department approving the thesis topic.)

□ Take two from:

- ASTR 315 - The Solar System
- MATH 203 - Linear Algebra and Differential Equations I
- MATH 204 - Elementary Linear Algebra
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 225 - Multivariable Calculus and Geometry II
- MATH 303 - Linear Algebra and Differential Equations II
- MATH 304 - Linear Algebra
- MATH 331 - Ordinary Differential Equations
- PHYS 163 - Physics with Calculus III
- PHYS 226 - Physics with Calculus IV
- PHYS 363 - Classical Mechanics

#### Departmental Honors

BA or BS students and students in the University Honors program who have completed at least 4 credits of GEOL 490 and have a cumulative GPA of 3.50 or higher meet the requirements for departmental honors. Those students who have completed at least 4 credits of GEOL 490 and have a cumulative GPA higher than 3.20 meet the requirements for departmental distinction.

## Geophysics, BS

Department of Geology, College of Sciences and Technology

### 97-111 credits

#### Introduction/What is the Study of Geophysics?

A Geoscientist is someone who studies the Earth's physical makeup and history. Geology is the science that provides the key to finding new sources of useful Earth materials and to understanding Earth processes that affect our lives. Geoscientists provide basic information to society for solving problems and establishing policy for resource management, environmental protection, public health, safety and welfare.

Geoscientists are curious about the Earth. How was it formed? How is it changing? What effects will shrinking glaciers have on the oceans and climate? How do islands form? What makes a continent move? Why did the dinosaurs become extinct? What makes a mountain?

Geoscientists are concerned about the Earth. Is there a global warming trend? How and where should we dispose industrial wastes? How can we fill society's growing demands for energy and conserve natural resources for future generations?

# GEOLOGY

Geoscientists enjoy the Earth. It is an outdoor laboratory filled with opportunities to observe Earth processes in action. By applying knowledge of forces that shape the Earth, Geoscientists seek to reconstruct the past and anticipate the future.

## Why Consider a Geophysics Major?

Do you like to know why and how things work? Do you enjoy the outdoors? Are you concerned about the environment? Are you interested in travel? Do you like to analyze things? Are science and nature among your favorite subjects? Have you ever wondered why the Earth appears as it does? If you answer "yes" to most of these questions the geosciences could offer a good career for you.

This program is recommended for students who are interested in applications of physics as a means of understanding a range of geological processes. Geophysics is distinct from Geology in that a more intensive set of Math and Physics courses, and applications of these skills, are required. Students who complete this degree will be prepared to continue to graduate studies in geology, geophysics, planetary geology/geophysics, physics, or other related fields, or to enter into industry. Students are strongly encouraged to complete a senior thesis project as part of this degree, providing them with an excellent capstone experience. Declaration of this major requires Geol 211, and a completed advising session with a Geophysics faculty advisor.

### Contact Information

#### Department Chair

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Environmental Studies 240A  
360-650-3581  
Bernie.Housen@wwu.edu

#### Undergraduate Advisor

Theresa Tripp  
Environmental Studies 240  
360-650-3582  
Theresa.Tripp@wwu.edu

### Sample Careers

U.S. Geological Survey | Departmental of Natural Resources | Oil Exploration | Mining Geologist | NASA | U.S. Forest Service | Engineering Geologist

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Some 300-level geology courses give preference to majors during Phase I of registration, so it is important to declare a major as early as possible.

Students must apply to the department for admission to the major. Students are admitted to the BS major following a completed advising session with a Geophysics faculty advisor.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- CHEM 121 - General Chemistry I
- Choose one of the following options:
  - GEOL 211 - Physical Geology
  - OR
  - GEOL 101 - Introduction to Geology
  - GEOL 211A - Physical Geology Review
  - OR
  - SCED 202 - Matter and Energy in Earth Systems

- GEOL 211A - Physical Geology Review
- GEOL 213 - GIS in Geology
- OR
- CSCI 139 - Programming Fundamentals in Python
- OR
- CSCI 140 - Programming Fundamentals in C++
- GEOL 311 - Earth Materials
- GEOL 318 - Structural Geology
- GEOL 352 - Introduction to Geophysics
- GEOL 452 - Applied Geophysics
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III
- PHYS 226 - Physics with Calculus IV
- PHYS 326 - Tools and Data Analysis
- PHYS 363 - Classical Mechanics
- PHYS 485 - Mathematical Physics
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry II
- OR
- MATH 138 - Accelerated Calculus
- Choose either:
  - MATH 203 - Linear Algebra and Differential Equations I
  - MATH 303 - Linear Algebra and Differential Equations II
  - MATH 224 - Multivariable Calculus and Geometry I
- OR
- MATH 204 - Elementary Linear Algebra
- MATH 304 - Linear Algebra
- MATH 331 - Ordinary Differential Equations
- MATH 224 - Multivariable Calculus and Geometry I
- Five courses from the following electives:
  - ASTR 315 - The Solar System
  - GEOL 306 - Mineralogy
  - GEOL 314 - Engineering Geology
  - GEOL 412 - Tectonic Geomorphology
  - GEOL 453 - Plate Tectonics
  - GEOL 454 - Magnetic Fabrics and Geologic Processes
  - GEOL 457 - Practical Paleomagnetism
  - GEOL 463 - Introduction to Seismology
  - GEOL 464 - Mantle Processes
  - GEOL 473 - Hydrogeology
  - GEOL 490 - Senior Thesis (A minimum of 3 credits and maximum of 5 credits)
  - MATH 225 - Multivariable Calculus and Geometry II
  - MATH 430 - Fourier Series and Applications to Partial Differential Equations
  - PHYS 368 - Electromagnetism I
  - PHYS 369 - Electromagnetism II

# GEOLOGY

- PHYS 486 - Computational Physics

## Senior Thesis

An undergraduate thesis is an excellent way to develop research skills, establish closer working relationships with faculty, and gain a more in-depth knowledge of geology. Completion of a thesis is also a notable achievement that highlights a student's ability to do research, providing tangible evidence of research ability to either graduate schools or potential employers. Thesis options are available for the BA and BS degrees in geology. Students interested in pursuing a senior thesis should contact potential advisors during their junior year to discuss possible thesis topics. A formal application to the department must be made, and accepted, prior to the start of the thesis project.

## Departmental Honors

BA or BS students and students in the University Honors program who have completed at least 4 credits of GEOL 490 and have a cumulative GPA of 3.50 or higher meet the requirements for departmental honors. Those students who have completed at least 4 credits of GEOL 490 and have a cumulative GPA higher than 3.20 meet the requirements for departmental distinction.

# Master of Science

## Geology, Thesis, MS

*College of Sciences and Technology*

### Graduate Faculty

**Amos, C. B.**, PhD, tectonics, surface processes  
**Caplan-Auerbach, J.**, PhD, geophysics, seismology.  
**Clark, D.H.**, PhD, glacial geology.  
**DeBari, S.M.**, PhD, petrology, science education.  
**Engebretson, D.C.**, PhD, tectonics, paleomagnetism.  
**Hansen, T.A.**, PhD, paleontology.  
**Hirsch, D.M.**, PhD, metamorphic petrology, mineralogy.  
**Housen, B.A.**, PhD, geophysics.  
**Linneman, S.R.**, PhD, geomorphology, science education.  
**Mitchell, R.J.**, PhD, groundwater hydrology, environmental geology.  
**Schermer, E.R.**, PhD, tectonics, structural geology, geochronology.  
**Stelling, P.**, PhD, igneous petrology, volcanology, geothermal research.  
**Suczek, C.A.**, PhD, stratigraphy, sedimentary petrology, tectonics.

### *Emeritus Faculty*

**Babcock, R.S.**, geochemistry, petrology.  
**Beck, Myrl E., Jr.**, geophysics, paleomagnetism.  
**Berg, R.**, remote sensing, surface computational studies.  
**Brown, E.H.**, metamorphic petrology, geochemistry.  
**Easterbrook, Don**, geomorphology, glacial geology.  
**Schwartz, Maurice L.**, coastal geology.  
**Talbot, James L.**, structural geology, tectonics.  
Program Advisor: Dr. Bernard Housen, Environmental Studies Center 240, 360-650-3581

### Program Description and Goals

The geology department offers an MS degree with a thesis and 45-48 credits of course work suitable for students wishing any of the geological specialties that can be supervised by its graduate faculty. The program prepares students for a career as a licensed professional geologist or for K-16 earth science teaching. (K-12 teaching in public school settings requires an approved teaching credential.)

### Prerequisites

Students with a bachelor's degree and who meet the requirements of the Graduate School are invited to apply for admission to the graduate program in geology. Students with a BS degree in geology, which includes a recognized geology field course, generally will be offered full admittance the program. Prerequisite course work may be necessary, depending on the applicant's chosen field of study. Applicants without a BS degree in geology will need to take a minimum of 19 quarter credits, including physical geology, stratigraphy or historical geology, crystallography and mineralogy, geomorphology, structural geology and a recognized geology field camp, up to a maximum of 42 geology credits, which may include additional prerequisites in chemistry, physics and math, depending on each individual situation. Students who have not completed these courses before entering the geology MS program must do so and maintain an average of B or better in prerequisite courses before being advanced to candidacy. Courses taken to make up these deficiencies are not counted toward the MS degree.

### Application Information

**Specific Test Requirements:** Graduate Record Examination (GRE), Revised General Test.

**Deadline:** The geology department prefers to admit students to enter in fall quarter. Admittance to the program also will depend on the availability of an advisor in the student's area of interest.

**TA Deadlines:** To be considered for a teaching assistantship, application and supporting materials must be on file by January 15.

#### Supporting Materials:

- A statement of the student's background and purpose
- Reference letters
- Official transcripts

Program Requirements (45 to 48 credits)

Required Coursework:

- 35 or more credits of graduate level courses (500- and 600-level) including 6 credits of GEOL 595
- 10 or less credits from 400-level courses.
- The 600-level credits shall include 12-15 credits of GEOL 690.

Electives in Specialization

Geology and supporting courses are selected under advisement through the department chair and the chair of the thesis committee. General courses plus specialty courses in economic geology, paleontology, geomorphology, applied geology, hydrogeology, igneous and metamorphic petrology, stratigraphy and sedimentary petrology, and in tectonics, geophysics and structural geology allow a choice of specialties; that choice should be made as soon as possible in the student's graduate career.

## Minor

### Geology Minor

Department of Geology, College of Sciences and Technology

**25 credits**



## Introduction/What is the Study of Geology?

### Why Consider a Geology Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Declaration of Major

Some 300-level geology courses give preference to majors during Phase I of registration, so it is important to declare a major as early as possible.

Students are admitted to the BA or BS major once they have completed GEOL 211. (**NOTE:** Grades of D-, D, or D+ are not acceptable for major and supporting courses.) Students must apply to the department for admission to the major.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- Choose one of the following options:
  - GEOL 211 - Physical Geology  
OR
  - GEOL 101 - Introduction to Geology  
and
  - GEOL 211A - Physical Geology Review  
OR
  - SCED 202 - Matter and Energy in Earth Systems  
and  
GEOL 211A - Physical Geology Review
- GEOL 212 - Historical Geology
- Geology electives 200 level and above

## Geology Courses

### GEOL 101 - Introduction to Geology

Major ideas of modern geoscience; the study of rocks and minerals, plate tectonics, geologic time, the hydrologic cycle; processes that have produced the Earth and its landforms. Some lecture sections will be focused on specific topics within the geological sciences, such as planetary geology, climate and climate change, or National Parks.

Includes lab. Prospective geology majors, students who had high school geology, and those planning to take GEOL 212 should take GEOL 211 in lieu of GEOL 101.

**Prerequisites & Notes:** MATH 107 or MATH 112 with concurrency or higher

Credits: 4  
GUR Attributes: LSCI

### **GEOL 202 - Plate Tectonics and Continental Drift**

Emergence of the theory of plate tectonics and its revolutionary impact on geologists thinking about the history of the earth; an instance of scientific discovery. For non-science majors.

**Prerequisites & Notes:** GEOL 101 or equivalent  
Credits: 4  
GUR Attributes: SCI

### **GEOL 204 - Geology and Society**

Thematic approach to geology, with different themes exploring the relationship between scientific ways of knowing, and geology in particular, with society. Repeatable once as an elective with different topics. May be taken only once for GUR credit.

**Prerequisites & Notes:** GEOL 101 or BIOL 101 or CHEM 101 or PHYS 101 or permission of instructor.  
Credits: 3  
GUR Attributes: SCI

### **GEOL 211 - Physical Geology**

Course for science and geology majors, in which the origin, composition and structure of earth are explored. Identification of common rocks and minerals; the evolution of the surface features and structures of continents and interpretation of landforms from maps are emphasized. Will include substantial quantitative work. Students intending to major in Geology or affiliated sciences should take GEOL 211 in lieu of GEOL 101. Successful completion of both GEOL 101 and GEOL 211A may substitute for GEOL 211 in all Geology Department requirements.

**Prerequisites & Notes:** MATH 114 with concurrency, or higher.  
Credits: 5  
GUR Attributes: LSCI

### **GEOL 211A - Physical Geology Review**

This is a laboratory-only course for students who wish to enter the Geology major or minor, or take upper division Geology courses, and have had a general introduction to geology. Emphasis on rock

and mineral identification, geologic structures, map interpretation. Successful completion of both GEOL 101 and GEOL 211A or SCED 202 and GEOL 211A may substitute for GEOL 211 in all Geology Department requirements. Geology 211A may not be used to fulfill general education requirements.

**Prerequisites & Notes:** GEOL 101 or SCED 202 with a grade of B- or better; MATH 114 with concurrency or higher.  
Credits: 2

### **GEOL 212 - Historical Geology**

Evolution of the major features of the earth's surface and of life; history of the ocean basins, continents and mountain belts related to the theory of plate tectonics; geologic history of North America and the Pacific Northwest.

**Prerequisites & Notes:** GEOL 211 or GEOL 211A; and MATH 114 or higher.  
Credits: 4  
GUR Attributes: LSCI

### **GEOL 213 - GIS in Geology**

An introduction to the fundamental elements of geographic information systems (GIS) for spatial data analysis in geology. Emphasis on data sources and ArcGIS tools for data input, display, manipulation, analysis, and output.

**Prerequisites & Notes:** Geology major status or instructor permission  
Credits: 3

### **GEOL 214 - Environmental Geology**

Explores the interactions between geological phenomena and human society. Topics include geologic hazards such as earthquakes, landslides, floods and volcanic eruptions, as well as the effects of human activities on earth systems, such as ground water contamination, resource limits, and global warming.

**Prerequisites & Notes:** GEOL 101 or GEOL 211; or GEOL 101 and GEOL 211A; or SCED 202 and GEOL 211A  
Credits: 3  
GUR Attributes: SCI

### **GEOL 252 - The Earth and Its Weather**

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An introduction to meteorology from a global viewpoint. A study of the earth's atmosphere, including weather observation and forecasting. Measurement and description of atmospheric properties.

**Prerequisites & Notes:** GEOL 101, CHEM 101 or PHYS 101  
Credits: 4  
GUR Attributes: LSCI

### **GEOL 301 - Geology Writing Co-Requisite**

This course is a writing-intensive supplement to a geology course where students will explore research topics and learn to write scientific papers about those topics. Repeatable up to 3 credits.

**Prerequisites & Notes:** Co-requisite: GEOL 308, or GEOL 309, or GEOL 311 or GEOL 314 or GEOL 340  
Credits: 1

### **GEOL 303 - Dinosaurs and Their Environment**

Dinosaurs and their world; their biology, behavior, evolution, and what the world was like during their reign.

**Prerequisites & Notes:** GEOL 101 or GEOL 211; or GEOL 101 and GEOL 211A; or SCED 202 and GEOL 211A  
Credits: 3  
GUR Attributes: SCI

### **GEOL 306 - Mineralogy**

Introduction to crystal chemistry and crystallography. Origin, occurrence and classification of common minerals; physical and chemical properties of minerals used in identification. Basic petrographic microscopy techniques and identification of common rock-forming minerals in thin-section.

**Prerequisites & Notes:** GEOL 211 or GEOL 211A; CHEM 121; CHEM 122 or higher or concurrent.  
Credits: 4

### **GEOL 308 - Earthquakes**

This course is a qualitative survey of the causes, effects and dynamics of local and global earthquakes. Topics include wave propagation, earth structure, the global distribution of

earthquakes, faulting mechanisms, earthquake magnitude, earthquake prediction and seismic hazard. Emphasis is placed on the investigation of earthquake behavior through case studies of historical earthquakes.

**Prerequisites & Notes:** GEOL 211 or GEOL 211A or SCED 202; and MATH 114 or higher.  
Credits: 3  
GUR Attributes: SCI

### **GEOL 309 - Volcanology**

Processes, products, and hazards of volcanic eruptions. Topics to include eruptive mechanisms, volcanic landforms and their relation to the composition and physical properties of magmas, emplacement mechanisms of pyroclastic flows and characteristics of their deposits, calderas, volcanic gases, effects of volcanic eruptions on climate and the atmosphere, volcanic hazards and their mitigation, and geothermal energy and mineral resources.

**Prerequisites & Notes:** GEOL 211; or GEOL 101 and GEOL 211A; or SCED 202 and GEOL 211A  
Credits: 3

### **GEOL 309A - Volcanology Lab**

Optional lab to accompany GEOL 309. Observation and interpretation of volcanic rocks and interpretation of volcanic eruption styles.

**Prerequisites & Notes:** corequisite: GEOL 309  
Credits: 1

### **GEOL 310 - Geomorphology**

Origin and evolution of topographic features by surface processes; analysis of glaciers, streams, wind, waves, ground water and other agents in development of landforms.

**Prerequisites & Notes:** GEOL 211 or GEOL 211A; GEOL 213; MATH 114 or higher  
Credits: 5

### **GEOL 311 - Earth Materials**

Examines geologic materials (minerals, rocks, and soils) from the scale of atoms to tectonic plates. Lecture foci range from the esoteric (mineral symmetry) to the practical (economic minerals). Laboratory exercises emphasize the scientific skills

of observation, identification, and classification in lab and in the field. Field trips are required.

**Prerequisites & Notes:** GEOL 211 or GEOL 211A; CHEM 121 or higher  
Credits: 5

#### **GEOL 314 - Engineering Geology**

Introduction to the engineering properties of rock and soil surficial materials and their significance in civil works and geological processes such as rock slides, soil-slope stability, and liquefaction.

**Prerequisites & Notes:** GEOL 211 or GEOL 211A; PHYS 121  
Credits: 4

#### **GEOL 315 - Minerals, Energy and Society**

Mineral resources are vital to society, and yet they are nonrenewable, expensive to find, unevenly distributed, and their extraction and consumption can be environmentally damaging. Can we make economically and environmentally sound decisions regarding land-use planning, development vs. conservation, mining vs. environmental protection, recycling vs. waste?

**Prerequisites & Notes:** GEOL 101 or GEOL 211; or GEOL 101 and GEOL 211A; or SCED 202 and GEOL 211A  
Credits: 4  
GUR Attributes: SCI

#### **GEOL 316 - Research in Marine Paleontology**

A problem-solving approach, working on a sequence of problems with reports that build to a core project, report and presentation. Begins with the classification and ecology of marine organisms. Research projects involve data gathering and analysis of fossil samples. Emphasizes hypothesis testing, writing and sharing of data in collaborative research.

**Prerequisites & Notes:** GEOL 212  
Credits: 4

#### **GEOL 318 - Structural Geology**

An overview of deformation in the earth's crust and introduction to tools for analysis of geologic structures. Topics include geometry and development of faults, folds and rock fabrics;

stress, strain, and rheology; interpretation of geologic maps and cross sections. Field and laboratory exercises are major components. One section each year is taught entirely in the field.

**Prerequisites & Notes:** GEOL 211 or GEOL 211A; GEOL 212; PHYS 114 or higher  
Credits: 5

#### **GEOL 340 - Geological Oceanography**

In this course students will gain an understanding of the nature and origin of oceanic crust and lithosphere. Large scale chemical and geological processes associated with ocean basins, and seawater-rock interactions, and the role of oceanic circulation in climate and climate change will be studied. Additional topics will be included based on student interest, which will be explored via independent reading assignment.

**Prerequisites & Notes:** GEOL 101 and GEOL 211A; or GEOL 211 or SCED 202.  
Credits: 3  
GUR Attributes: SCI

#### **GEOL 352 - Introduction to Geophysics**

Basic elements of geomagnetism, seismology, gravity and heat flow with reference to the internal structure of the earth.

**Prerequisites & Notes:** GEOL 211 or GEOL 211A; PHYS 121 and PHYS 122, or PHYS 161 and PHYS 162.  
Credits: 5

#### **GEOL 372 - Watershed Hydrology**

Examination of the hydrologic processes and land characteristics controlling the movement and storage of surface and ground water within a watershed. Topics include the collection and analysis of watershed and hydrologic data, and watershed management issues.

**Prerequisites & Notes:** GEOL 211; or GEOL 101 and GEOL 211A; or SCED 202 and GEOL 211A  
Credits: 3

#### **GEOL 396A - Honors Tutorial**

Repeatable with no maximum.

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Credits: 2-5

## **GEOL 396B - Honors Tutorial**

Repeatable with no maximum.

Credits: 2-5

## **GEOL 396C - Honors Tutorial**

Repeatable with no maximum.

Credits: 2-5

## **GEOL 401A - Teaching Practicum**

Supervised teaching experience in the general geology laboratory. Students will assist in one 2-hour lab section per week. Repeatable to a maximum of 2 cr. S/U grading.

**Prerequisites & Notes:** GEOL 211 or GEOL 211A, with a minimum grade of B or better, and permission of the chair.

Credits: 1

Grade Mode: S/U

## **GEOL 401B - Teaching Practicum**

Assisting faculty in teaching advanced undergraduate geology courses. Students will assist in two 2-hour lab sections per week in GEOL 211, or one 2-hour session per week in GEOL 212. Repeatable to a maximum of 4 cr. S/U grading.

**Prerequisites & Notes:** Permission of the chair; student must have received a minimum of a B grade in the course for which they will be a Teaching Fellow.

Credits: 2

Grade Mode: S/U

## **GEOL 406 - Igneous and Metamorphic Petrology**

Origin, occurrence and classification of igneous and metamorphic rocks, hand specimen identification of rocks. In alternate years, one section that year is taught entirely in the field.

**Prerequisites & Notes:** GEOL 306; CHEM 121; CHEM 122 or higher or equivalent.

Credits: 4

## **GEOL 407 - Advanced Petrography**

Interaction of light with minerals. Advanced petrographic techniques and identification of minerals with the polarizing microscope. Study of rocks and minerals with a polarizing microscope.

**Prerequisites & Notes:** GEOL 406

Credits: 3

## **GEOL 409 - Field Methods and Theory**

Methods of geological field investigations; includes use of field instruments and outcrop studies.

**Prerequisites & Notes:** GEOL 212; GEOL 318; GEOL 406; GEOL 415; Co-req GEOL 410.

Concurrent or successive enrollment in GEOL 410 required.

Credits: 6

## **GEOL 410 - Geologic Mapping**

Application of geological field methods to making geological maps and reports of specific areas; supervised investigation of one or more map areas.

**Prerequisites & Notes:** Co-requisite: GEOL 409

Credits: 6

## **GEOL 411 - Field Geology of Western United States**

Geologic mapping and tectonic analysis of various field sites in the southern U.S. Cordillera, from the plate margin to the craton. Will include outcrop study, reading, independent field research, and discussion of tectonic evolution of the Cordillera.

**Prerequisites & Notes:** GEOL 410 corequisite.

Credits: 3

## **GEOL 412 - Tectonic Geomorphology**

This course will focus on interplays between tectonics, climate, and surface processes that shape landscapes in areas of active deformation. Topics covered will include the processes that control and build topography at the scale of mountain belts to individual fault zones. This course will draw upon tools and techniques from structural geology, geomorphology, GIS, geodesy, and geochronology.

**Prerequisites & Notes:** GEOL 310 and GEOL 318.

Credits: 4

### **GEOL 413 - Fluvial Geomorphology**

Stream processes, equilibrium in fluvial environments, channel adjustments, mechanics of sediment erosion and transport. Weekly field trips.

**Prerequisites & Notes:** GEOL 310 or instructor permission  
Credits: 4

### **GEOL 414 - Geology of Washington**

The significant geologic features of Washington State; field studies. Offered summer only.

**Prerequisites & Notes:** GEOL 101 or GEOL 211; or GEOL 101 and GEOL 211A; or SCED 202 and GEOL 211A  
Credits: 3-5

### **GEOL 415 - Stratigraphy and Sedimentation**

Analysis of the transportation, deposition and consolidation of sediments; classification of sedimentary rocks; determination of depositional facies; principles of stratigraphic nomenclature.

**Prerequisites & Notes:** GEOL 212, GEOL 306, GEOL 310 or instructor permission  
Credits: 4

### **GEOL 423 - Advanced Igneous Petrology**

Advanced course on modern methods of igneous petrology. Focus on magma generation and evolution, utilizing major element, trace element, and isotope geochemistry. Interpretive methods include use of the petrographic microscope and geochemical modeling exercises. Individual research projects required.

**Prerequisites & Notes:** GEOL 406  
Credits: 4

### **GEOL 424 - Advanced Sedimentary Petrology**

Description, classification and interpretation of sedimentary rocks, including provenance, depositional history and diagenesis. Advanced lab stresses work with the petrographic microscope. Individual research projects will be done and presented.

**Prerequisites & Notes:** GEOL 406; GEOL 407; or

permission of instructor  
Credits: 5

### **GEOL 425 - Advanced Metamorphic Petrology**

Advanced course in metamorphic petrology. Emphasizes graphical and mathematical analysis of phase relations, and field and laboratory study of metamorphic structures, minerals and microstructures. Individual research projects performed and presented.

**Prerequisites & Notes:** GEOL 406; GEOL 407 or permission of instructor  
Credits: 5

### **GEOL 428 - Depositional Environments**

Depositional framework of marine and continental sedimentary basins. Study of the means by which depositional environments of sedimentary rocks are determined.

**Prerequisites & Notes:** GEOL 415 or equivalent  
Credits: 3

### **GEOL 430 - Image Interpretation**

Explores fundamental concepts of identifying and interpreting geologic features using remote imagery, including aerial photographs, topographic data (maps, DEMs), multispectral satellite images, and geophysical imagery. Emphasizes critical evaluation and development of multiple working hypotheses in creating geologic maps from images.

**Prerequisites & Notes:** GEOL 310; GEOL 318 recommended  
Credits: 3

### **GEOL 432 - Ore Deposits**

Classification, occurrence and origin of ore deposits; thin section and hand specimen study of rock samples from selected mining districts.

**Prerequisites & Notes:** GEOL 306; GEOL 406 or concurrent.  
Credits: 4

### **GEOL 440 - Glacial Geology**

Explores fundamental concepts of glaciology and glacial geology. Topics include formation and dynamics of glaciers and glacier mass-balance, processes of glacial erosion, transport, and

## GEOLOGY

deposition, Quaternary climate change associated with global glaciations, and assessing effects of glaciation on the modern landscape. Includes field trips and research components.

**Prerequisites & Notes:** GEOL 310

Credits: 4

### **GEOL 450 - Advanced Topics in Structural Geology**

Analysis of geologic structures from microstructural to plate tectonic scales. Includes active and ancient structures, concepts of stress and strain, kinematics and mechanics of deformation, and modeling of deformation. Field trip and research project required. Taught alternate years.

**Prerequisites & Notes:** GEOL 318, GEOL 406; GEOL 409 and GEOL 410 recommended

Credits: 4

### **GEOL 451 - Active Tectonics Seminar**

Study of active faults, associated crustal deformation and earthquakes. Examines the mechanics of faulting, earthquake seismology, and GPS geodesy. Regional emphasis on the Pacific Northwest.

**Prerequisites & Notes:** GEOL 318, GEOL 352

Credits: 4

### **GEOL 452 - Applied Geophysics**

Geophysical exploration techniques applied to geological problems. Theory and field application of gravity, magnetics, refraction and earthquake seismology, electrical resistivity and others. Class projects include depth-to-bedrock, buried and subsurface features, groundwater estimates and earthquake potential and grounds response.

**Prerequisites & Notes:** GEOL 352 or equivalent

Credits: 5

### **GEOL 453 - Plate Tectonics**

Kinematics and dynamics of plate motions, with applications to geotectonics.

**Prerequisites & Notes:** GEOL 352

Credits: 4

### **GEOL 454 - Magnetic Fabrics and Geologic Processes**

Theory and laboratory measurement of magnetic anisotropy in rocks, sediments, and minerals. Emphasis on the use of magnetic anisotropy techniques to understand various geological processes including deformation, sediment transport, and magma flow and emplacement. Laboratory project and writing project included.

**Prerequisites & Notes:** GEOL 352

Credits: 4

### **GEOL 455 - Climate-Related Geologic Hazards**

The relation of climate and weather to geologic hazards: air masses, fronts, trends in temperature, precipitation, winds and tides. Topics include effects of severe weather on mass wasting, floods and erosion, global climate and sea-level variations for the past two million years.

**Prerequisites & Notes:** PHYS 161

Credits: 3

### **GEOL 456 - Principles of Orogeny Seminar**

Study of geological and geophysical aspects of continental tectonics and mountain-building processes. Topics may include thermochronology, heat flow, metamorphic petrology, structural geology, tectonic geomorphology, plate tectonics, and geodesy. The combined lecture and seminar format requires reading and discussion of tectonics literature, and active participation and discussion by all students. Field trip and research project required. Taught alternate years.

**Prerequisites & Notes:** GEOL 318, GEOL 352, GEOL 406, GEOL 409, GEOL 410

Credits: 4

### **GEOL 457 - Practical Paleomagnetism**

Application of rock magnetism and paleomagnetism to field-oriented research problems. Seminar style meetings, field trip(s), and laboratory measurements will focus on solution of an original research problem. Results will be used for a required research paper. Project topics will vary; examples include paleomagnetism of displaced terranes, magnetostratigraphy, magnetic fabrics, environmental magnetism.

**Prerequisites & Notes:** GEOL 352

Credits: 4

**GEOL 461 - Analytical Geochemistry**

Introduction to analysis of rocks, soil and water. Methods include atomic absorption spectrophotometry, ion chromatography, gas chromatography and quadrupole mass spectrometry as well as gravimetric, volumetric and colorimetric analysis.

**Prerequisites & Notes:** GEOL 306; CHEM 123 or higher.

Credits: 2

**GEOL 462 - Hydrogeochemistry**

A discussion of the geological and geochemical processes that control the chemical composition of surface and groundwater.

**Prerequisites & Notes:** GEOL 211 or GEOL 211A; CHEM 121; CHEM 122 or higher.

Credits: 3

**GEOL 463 - Introduction to Seismology**

Investigates the physics of earthquakes, the effects of earthquakes on our world and the insights into the planet provided by seismology. This class is a quantitative introduction to the study of local and global seismology. Topics include stress and strain, wave propagation, power spectra, earthquake magnitude, seismic hazard, earthquake prediction and associated hazards such as tsunamis and volcano seismology. Whenever possible, student will use real seismic data in their analyses.

**Prerequisites & Notes:** GEOL 318; GEOL 352

Credits: 4

**GEOL 464 - Mantle Processes**

Investigates geologic and geophysical processes in Earth's mantle, convection, heat flux, the life cycle of lithosphere and the dynamics of mantle plumes. Compares results from geophysical and petrological studies.

**Prerequisites & Notes:** GEOL 352

Credits: 4

**GEOL 470 - Landslides and Slope Stability**

This seminar will review current research on landslides and slope stability, including: landslide types and processes; landslide triggering mechanisms; soil and rock slope stability; soil and rock slope failure modes; landslide hazard analysis. Offered alternate years.

**Prerequisites & Notes:** GEOL 310; GEOL 314 or GEOL 318

Credits: 3

**GEOL 472 - Surface Water Hydrology**

Components of the hydrologic cycle, including precipitation, infiltration, evapotranspiration, and runoff, and their effect on a water balance in a watershed.

**Prerequisites & Notes:** GEOL 211 or GEOL 211A; MATH 124 or higher.

Credits: 4

**GEOL 473 - Hydrogeology**

Introduction to the geologic and hydrologic factors controlling the occurrence and movement of subsurface water. Applications in well hydraulics and groundwater site investigations.

**Prerequisites & Notes:** GEOL 211 or GEOL 211A; PHYS 161

Credits: 4

**GEOL 474 - Ground Water Contamination**

Introduction to the principles of some of the important physical, chemical, and biological processes that govern the transport, persistence, and/or degradation of pollutants in saturated and unsaturated groundwater systems.

**Prerequisites & Notes:** GEOL 473 or instructor permission

Credits: 3

**GEOL 490 - Senior Thesis**

Research project under direction of faculty. Repeatable to a maximum of 9 cr.

**Prerequisites & Notes:** senior standing

Credits: 1-5

**GEOL 501 - Teaching Practicum**



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Supervised teaching experiences in undergraduate geology laboratories at the 300 level and above courses. Maximum of 2 credits can be applied toward student's graduate course work.

**Prerequisites & Notes:** Graduate status and permission of chair.  
Credits: 2  
Grade Mode: S/U

## **GEOL 512 - Tectonic Geomorphology**

This course will focus on interplays between tectonics, climate, and surface processes that shape landscapes in areas of active deformation. Topics covered will include the processes that control and build topography at the scale of mountain belts to individual fault zones. This course will draw upon tools and techniques from structural geology, geomorphology, GIS, geodesy, and geochronology.

**Prerequisites & Notes:** GEOL 310 and GEOL 318.  
Credits: 4

## **GEOL 513 - Fluvial Geomorphology**

Stream processes, equilibrium in fluvial environments, channel adjustments, mechanics of sediment erosion and transport. Weekly field trips.

**Prerequisites & Notes:** GEOL 310 or instructor permission  
Credits: 4

## **GEOL 518 - Structural Geology and Tectonics of Washington**

Field methods of structural geology and introduction to the structural and tectonic evolution of Washington, focusing on the building of the Cascade Mountains. Taught during a three-week period prior to the beginning of fall quarter. Involves camping and field work throughout Washington state, including some strenuous hiking.

**Prerequisites & Notes:** GEOL 318 or equivalent, instructor permission  
Credits: 3

## **GEOL 523 - Advanced Igneous Petrology**

Advanced course on modern methods of igneous petrology. Focus on magma generation and

evolution, utilizing major element, trace element, and isotope geochemistry. Interpretive methods include use of the petrographic microscope and geochemical modeling exercises. Individual research projects required.

**Prerequisites & Notes:** GEOL 406, GEOL 407 or equivalent  
Credits: 4

## **GEOL 524 - Sedimentary Petrology and Petrography**

Description, classification and interpretation of sedimentary rocks, including provenance, depositional history and diagenesis. Advanced lab stresses work with the petrographic microscope.

**Prerequisites & Notes:** GEOL 406, GEOL 407 or equivalent  
Credits: 5

## **GEOL 525 - Advanced Metamorphic Petrology**

Advanced course in metamorphic petrology. Emphasizes graphical and mathematical analysis of phase relations, and field and laboratory study of metamorphic structures, and microscope study of metamorphic structures, minerals and microstructures. Individual research projects performed and presented.

**Prerequisites & Notes:** GEOL 406, GEOL 407 or equivalent  
Credits: 5

## **GEOL 528 - Depositional Environments**

Depositional framework of marine and continental sedimentary basins. Study of the means by which depositional environments of sedimentary rocks are determined.

**Prerequisites & Notes:** GEOL 415 or equivalent  
Credits: 3

## **GEOL 530 - Image Interpretation**

Explores fundamental concepts of identifying and interpreting geological features using remote imagery, including aerial photographs, topographic data (maps, DEMs), multispectral satellite images, and geophysical imagery. Emphasizes critical evaluation and development of multiple working hypotheses in creating geologic maps from images.

**Prerequisites & Notes:** GEOL 310; GEOL 318 recommended  
Credits: 3

### **GEOL 532 - Ore Deposits**

Classification, occurrence and origin of ore deposits; thin section and hand specimen study of rock samples from selected mining districts.

**Prerequisites & Notes:** GEOL 306; GEOL 406 or concurrent.  
Credits: 4

### **GEOL 536 - Paleobiology**

Exploration of current topics in the study of fossils. Topics may include mass extinctions, community paleoecology, dinosaur behavior or the effects of extraterrestrial events on the earth's biosphere. Specific topics for each quarter will be decided by the class.

**Prerequisites & Notes:** GEOL 316 or instructor permission  
Credits: 3

### **GEOL 540 - Glacial Geology**

Explores fundamental concepts of glaciology and glacial geology. Topics include formation and dynamics of glaciers and glacier mass-balance, processes of glacial erosion, transport, and deposition, Quaternary climate change associated with global glaciations, and assessing effects of glaciation on the modern landscape. Includes field trips and research components.

**Prerequisites & Notes:** GEOL 310 or equivalent  
Credits: 4

### **GEOL 550 - Advanced Topics in Structural Geology**

Analysis of geologic structures from microstructural to plate tectonic scales. Includes active and ancient structures, concepts of stress and strain, kinematics and mechanics of deformation, and modeling of deformation. Field trip and research project required. Taught alternate years.

**Prerequisites & Notes:** GEOL 318, GEOL 406; GEOL 409 and GEOL 410 recommended  
Credits: 4

### **GEOL 551 - Active Tectonics Seminar**

Study of active faults, associated crustal deformation and earthquakes. Examines the mechanics of faulting, earthquake seismology and GPS geodesy. Regional emphasis on the Pacific Northwest.

**Prerequisites & Notes:** GEOL 318, GEOL 352  
Credits: 4

### **GEOL 552 - Applied Geophysics**

Geophysical exploration techniques applied to geological problems. Theory and field application of gravity, magnetics, refraction and earthquake seismology, electrical resistivity and others. Class projects include depth-to-bedrock, buried subsurface features, groundwater estimates and earthquake potential and grounds response.

**Prerequisites & Notes:** GEOL 352 or equivalent  
Credits: 5

### **GEOL 553 - Plate Tectonics**

Kinematics and dynamics of plate motions, with applications to geotectonics.

**Prerequisites & Notes:** GEOL 352  
Credits: 4

### **GEOL 554 - Magnetic Fabrics and Geological Processes**

Theory and laboratory measurement of magnetic anisotropy in rocks, sediments, and minerals. Emphasis on the use of magnetic anisotropy techniques to understand various geological processes including deformation, sediment transport, and magma flow and emplacement. Laboratory project and writing project included.

**Prerequisites & Notes:** GEOL 352 or equivalent  
Credits: 4

### **GEOL 555 - Climate-Related Geologic Hazards**

The relation of climate and weather to geologic hazards: air masses, fronts, trends in temperature, precipitation, winds and tides. Topics include: effects of severe weather on mass wasting, floods, and erosion; global climate and sea level variations for the past two million years.

**Prerequisites & Notes:** PHYS 161 or equivalent.

# GEOLOGY

Credits: 3

## **GEOL 556 - Principles of Orogeny Seminar**

Study of geological and geophysical aspects of continental tectonics and mountain-building processes. Topics may include thermochronology, heat flow, metamorphic petrology, structural geology, tectonic geomorphology, plate tectonics, and geodesy. The combined lecture and seminar format requires reading and discussion by all students. Field trip, research projects, and oral presentations required. Taught alternate years.

**Prerequisites & Notes:** GEOL 318, GEOL 352, GEOL 406, GEOL 409, GEOL 410

Credits: 4

## **GEOL 557 - Practical Paleomagnetism**

Application of rock magnetism and paleomagnetism to field-oriented research problems. Seminar style meetings, field trip(s), and laboratory measurements will focus on solution of an original research problem. Results will be used for a required research paper. Project topics will vary; examples include paleomagnetism of displaced terranes; magnetostratigraphy; magnetic fabrics, environmental magnetism.

**Prerequisites & Notes:** GEOL 352

Credits: 4

## **GEOL 558 - Paleomagnetism and Tectonics Lab Seminar**

Advanced instruction in the operation of paleomagnetic lab equipment, research techniques in rock and paleomagnetism, discussion and evaluation of current paleomagnetic literature. Seminar topics will focus on presentation of research results and current research in the field. Topics related to paleomagnetism and plate tectonics will vary each quarter. Repeatable for credit one time.

**Prerequisites & Notes:** GEOL 457 or GEOL 557

Credits: 1-2

## **GEOL 559 - Rock Magnetism and Geomagnetic Field Lab**

The course will involve advanced instruction in the operation of paleomagnetic lab equipment, research techniques in rock and paleomagnetism,

discussion and evaluation of current paleomagnetic literature. Seminar topics will focus on presentation of research results and current research in the field. Topics related to the geomagnetic field and rock magnetism will vary each quarter. Repeatable for credit one time.

**Prerequisites & Notes:** GEOL 457 or GEOL 557 or instructor permission

Credits: 1-2

## **GEOL 560 - Geologic Phase Equilibria**

Analysis of geologic phase equilibria in terms of classical thermodynamics. Review of current research literature and seminar presentations.

**Prerequisites & Notes:** Permission of instructor.

Credits: 3

## **GEOL 561 - Analytical Geochemistry**

Applications of analytical chemistry to soil, water and rock samples. Methods include atomic absorption spectrophotometry, ion chromatography, gas chromatography, mass spectrometry and X-ray diffraction. Field collection techniques, sample preparation and data processing also are discussed. Course consists of two hours of lecture and two hours of lab per week.

**Prerequisites & Notes:** instructor permission

Credits: 2

## **GEOL 562 - Advanced Hydrogeochemistry**

Discussion and directed research on the physical processes and geochemical equilibria that control the major and trace element composition of water in its various forms on earth.

**Prerequisites & Notes:** GEOL 211; CHEM 121, CHEM 122

Credits: 3

## **GEOL 563 - Introduction to Seismology**

Investigates the physics of earthquakes, the effects of earthquakes on our world and the insights into the planet provided by seismology. This class is a quantitative introduction to the study of local and global seismology. Topics include stress and strain, wave propagation, power spectra, earthquake magnitude, seismic hazard,

earthquake prediction and associated hazards such as tsunamis and volcano seismology. Whenever possible, students will use real seismic data in their analyses.

**Prerequisites & Notes:** GEOL 352

Credits: 4

#### **GEOL 564 - Mantle Processes**

Investigates geologic and geophysical processes in Earth's mantle, including mantle convection, heat flux, the life cycle of lithosphere and the dynamics of mantle plumes. Compares results from geophysical and petrological studies. Students will be active in presenting material and leading class discussion.

**Prerequisites & Notes:** GEOL 352 or equivalent.

Credits: 4

#### **GEOL 570 - Landslides and Slope Stability**

This seminar will review current research on landslides and slope stability, including: landslide types and processes; landslide triggering mechanisms; soil and rock slope stability; soil and rock slope failure modes; landslide hazard analysis. Offered alternate years.

**Prerequisites & Notes:** GEOL 310; GEOL 318 or GEOL 314 or equivalent

Credits: 3

#### **GEOL 572 - Surface Water Hydrology**

Components of the hydrologic cycle and their interaction, including precipitation, infiltration, evapotranspiration, and runoff, and their effect on a water balance in a watershed.

**Prerequisites & Notes:** instructor permission

Credits: 4

#### **GEOL 573 - Hydrogeology**

Introduction to the geologic and hydrologic factors controlling the occurrence and movement of subsurface water. Applications in well hydraulics and groundwater site investigations.

**Prerequisites & Notes:** instructor permission

Credits: 4

#### **GEOL 574 - Ground Water Contamination**

Introduction to the principles of some of the important physical, chemical, and biological processes that govern the transport, persistence, and/or degradation of pollutants in saturated and unsaturated groundwater systems.

**Prerequisites & Notes:** GEOL 573 or instructor permission

Credits: 3

#### **GEOL 595 - Seminar in Contemporary Geology Problems**

Seminar and weekend field trips introduce geology graduate students to research problems. Repeatable to a maximum of 6 cr. S/U grading.

**Prerequisites & Notes:** Graduate status in the department.

Credits: 2

Grade Mode: S/U

#### **GEOL 690 - Thesis**

Thesis research, repeatable up to 15 credits.

Credits: 2-15

## **Interdisciplinary Sciences, Technology, and Mathematics Courses**

#### **ISTM 201 - Science Literacy**

Topics will vary somewhat with different instructors, but may include: Understanding the nature of science and what discriminates science from other ways of knowing. Discriminating among good science, junk science, and pseudoscience. Elementary statistics and how they can mislead. Logical fallacies. Scientific topics in the news (e.g., creationism vs. evolutionism).

Credits: 3

GUR Attributes: SCI

# Materials Science

## Introduction

The field of Materials Science addresses the challenges of creating, understanding, and using new materials to meet the technological needs of the 21st century. Materials such as alloys, polymers and composites, and semiconductors play important roles in the modern economy where they are used in a wide range of applications, from clean energy to medicine, and aerospace to microelectronics. Materials Science is an interdisciplinary area of study exploring the broad spectrum of materials from basic atomic and molecular scales through macroscopic engineered products. At Western Washington University Materials Science is represented through a diversified and collaborative program based on an interdisciplinary set of courses, faculty, research projects and facilities drawn from several departments.

The Materials Science minor at Western Washington University complements major degree programs such as chemistry, engineering technology, geology, and physics by providing an interdisciplinary perspective preparing graduates to work at the boundaries between disciplines. Students electing the minor begin their studies in a four course sequence teaching fundamental concepts and practical skills in materials preparation and characterization (MSCI 201, 320, 330 and 410). These courses are taught by faculty from several departments and involve a variety of facilities and instrumentation. Topics covered include: chemical, mechanical, electronic, and optical properties; polymers and composites, engineering alloys and ceramics, semiconductors and nanomaterials; and applications of materials in modern contexts such as photovoltaics, fuel cells, microelectronics, and geomaterials.

Culminating the minor is a capstone experience involving six credits of intensive research under the guidance of an AMSEC faculty mentor or an internship with a partner company. The research experience or internship is usually performed in the junior or senior year, although for students who become involved in research earlier, it may in some cases be part of a longer term project. Students should consult with the program advisor for assistance in arranging their experience. The capstone practicum is intended to provide opportunities to apply concepts learned in the classroom and laboratory, preparing professionals ready for graduate study or employment in industry.

## Faculty

**STEVEN R. EMORY** (2001) Director and Associate Professor. BS, California Lutheran University; PhD, Indiana University.

**JOHN ANTOS** (2012) Assistant Professor. BS, Ohio State University; PhD, University of California-Berkeley.

**MARION BRODHAGEN** (2006) Associate Professor. BS, University of Wisconsin; MS, PhD, Oregon State University.

**MARK E. BUSSELL** (1990) Professor. BA, Reed College; PhD, University of California-Berkeley.

**SUSAN M. DeBARI** (1998) Associate Professor. BA, Cornell University; PhD, Stanford University.

**MILTON FROM** (1998) Associate Professor. BSc, University of Manitoba; MSc, PhD, McGill University.

**JOHN GILBERTSON** (2008) Assistant Professor. BA, Augustana College; MS, PhD, University of Oregon.

**DAVID HIRSCH** (2001) Associate Professor. BS, University of California-Los Angeles; PhD, University of Texas-Austin.

**NICOLE HOEKSTRA** (1998) Professor. BSME, MSME, University of Minnesota, Institute of Technology.

**BERNARD A. HOUSEN** (1997) Professor. BS, University of Washington; MS, PhD, University of Michigan.

**BRAD L. JOHNSON** (1997) Professor. BS, MSBS, University of Colorado- Colorado Springs; PhD, University of Colorado-Boulder.

**KATHLEEN L. KITTO** (1998) Professor. Special Assistant to the Provost for Strategic Initiatives, Acting Vice Provost for Research and Dean of Graduate School. BS, MSME, Montana College of Mineral Science and Technology.

**NICOLE M. LARSON** (2005) Associate Professor. BSME, Bradley University; MSME, University of Washington.

**JANELLE LEGER** (2008) Associate Professor. BS University of California-Davis; PhD, University of California

at Santa Cruz.

**STEPHEN McDOWALL** (2001) Associate Professor. BS, MS, University of Canterbury, New Zealand; PhD, University of Washington.

**AMANDA MURPHY** (2006) Assistant Professor. BS, Western Washington University; PhD, University of California-Berkley.

**DAVID L. PATRICK** (1996) Professor. BS, University of California-Davis; PhD, University of Utah.

**ELIZABETH A. RAYMOND** (2006) Assistant Professor. BA, Whitman College; PhD, University of Oregon.

**DAVID RIDER** (2007) Assistant Professor. BSc, Simon Fraser University; PhD, University of Toronto.

**ANDREAS RIEMANN** (2006) Associate Professor. BS, MS, University Halle, Germany; PhD, Free University Berlin, Germany.

**TAKELE SEDA** (2002) Assistant Professor. BS, Asmara University (Eritrea); MS, Addis Ababa University, Ethiopia; PhD, University of Witwatersand, Johannesburg, South Africa.

**PETER SHERWOOD** (2012) Distinguished Visiting Professor of Materials Science and Chemistry. PhD, Cambridge University. Affiliate Professor of Chemistry, University of Washington. Emeritus Dean and Emeritus Regents Professor of Physics, Oklahoma State University. Emeritus University Distinguished Professor of Chemistry, Kansas State University.

**SERGEY SMIRNOV** (2008) Assistant Professor. BS, MS, Moscow Institute of Physics and Technology; PhD, State University of New York at Stony Brook.

**P. CLINT SPIEGEL** (2007) Associate Professor, BS, Oregon State University; PhD, University of Washington.

**JAMES R. VYVYAN** (1997) Professor. BS, University of Wisconsin-Eau Claire; PhD, University of Minnesota.

#### **Research Associates**

**BRIAN RUSK** (2011) BS, James Madison University; PhD, University of Oregon.

## **Other Departmental Information**

#### *Facilities and Resources*

The Materials Science minor at Western Washington University is administered by the Advanced Materials Science and Engineering Center (AMSEC), a collaborative, interdisciplinary program within the College of Sciences and Technology. In addition to its educational programs, AMSEC provides leadership in academic research and scholarship while maintaining strong relationships with regional companies. The Center includes faculty and students from across the College involved in researching a wide range of advanced materials, such as polymers and composites, geological and magnetic materials, organic and inorganic synthesis, materials for clean energy, theory and modeling, and nanomaterials. The Center also operates a shared, open access Materials Characterization Laboratory housing state-of-the-art x-ray diffraction, thin film preparation, mass spectrometry, microscopy and thermal analysis equipment.

## **Minor**

### **Materials Science Minor**

Department of Materials Science, College of Sciences and Technology

#### **39-42 credits**

#### **Introduction/What is the Study of Materials Science?**

#### **Why Consider a Materials Science Minor?**

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

Core Requirements – 22 credits

- MSCI 320 - Introduction to Materials Science I \*
- MSCI 330 - Introduction to Materials Science II
- MSCI 410 - Characterization of Materials
- MSCI 491 - Independent Research or Internship in Materials Science I
- MSCI 492 - Independent Research or Internship in Materials Science II
- One course from:
  - ETEC 220 - Introduction to Engineering Materials
  - MSCI 201 - Introduction to Engineering Materials
- Select at least one course from:
  - ETEC 333 - Polymer Technology
  - ETEC 334 - Reinforced Plastics/Composites
  - CHEM 308 - Introduction to Polymer Chemistry
  - CHEM 425R - Surface Chemistry.
  - GEOL 306 - Mineralogy
  - GEOL 352 - Introduction to Geophysics
  - GEOL 454 - Magnetic Fabrics and Geologic Processes
  - GEOL 461 - Analytical Geochemistry
  - PHYS 475 - Physics of Solids and Materials I
  - PHYS 476 - Physics of Solids and Materials II

\*ET majors may substitute ETEC 333 + 334 + CHEM 251

CHEM 121, 122, 123; PHYS 161, 162, 163 and MATH 115, 125 are prerequisites for the MSCI courses.

## Materials Science Courses

### MSCI 101 - The Materials Revolution

An introductory course designed to facilitate a basic understanding of the materials science fundamentals behind the development of today's most important and innovative materials. Topics include: nanomaterials, smart materials, advanced composite materials, and semiconductors. Other

important basics such as building materials from atoms, structures, synthesis, materials failures, and sustainability will also be covered.

**Prerequisites & Notes:** Freshman status or permission - FYE

Credits: 4

GUR Attributes: SCI

### **MSCI 110 - Renewable Energy: Materials Science**

The effort to find safe and clean sources of renewable energy is one of the greatest scientific challenges facing the next generation. In this course students will explore renewable energy technology and learn about the materials science underlying biofuels, wind, and wave power, nuclear power and solar cells. Students will create biodiesel fuel in the laboratory and construct their

### **MSCI 201 - Introduction to Engineering Materials**

The relationship between the properties, structure and processes of engineering materials is discussed. Emphasis on the fundamentals of selecting materials based on engineering design criteria. Also offered as ETEC 220.

**Prerequisites & Notes:** CHEM 121 or CHEM 125; MATH 115 or MATH 118; PHYS 161 or concurrent.  
Credits: 4

### **MSCI 320 - Introduction to Materials Science I**

The first course in a three course interdisciplinary sequence designed to cover the fundamental concepts of materials science. Basic atomic structures, basic organic and polymer chemistry, synthesis of organic materials, polymers, composites, and basic characterization methods are covered in this first overview course. ETEC majors may substitute ETEC 333 + 334 + CHEM 251 for MSCI 320.

**Prerequisites & Notes:** CHEM 123 or CHEM 225.  
Credits: 4

### **MSCI 330 - Introduction to Materials Science II**

The second course in a three course interdisciplinary sequence designed to cover the fundamental concepts of materials science. Electrical, magnetic and optical properties and structures of materials are emphasized in this second overview course. ETEC majors may substitute ETEC 333 + 334 + CHEM 251 for MSCI 320.

own solar cell devices. Field trips to local energy companies will provide real world examples of energy infrastructure. Students will work in small groups to research a focus area of renewable energy, and at the end of the course give group presentations to communicate their findings. S/U grading.

Credits: 1  
Grade Mode: S/U grading.

**Prerequisites & Notes:** MATH 125 or MATH 135 or MATH 138; PHYS 161, PHYS 162, PHYS 163; MSCI 320  
Credits: 4

### **MSCI 410 - Characterization of Materials**

The third course in a three course interdisciplinary sequence designed to cover the fundamental concepts of materials science. Theory and operating principals of external and internal characterization of materials such as: electron microscopy, x-ray chemical microanalysis, optical microscopy, thermal, magnetic and structural analysis, polymer processing and analysis, thin film preparation and characterization, and x-ray diffraction. Laboratory experience and projects are emphasized.

**Prerequisites & Notes:** MSCI 330 or CHEM 461 or GEOL 306  
Credits: 4

### **MSCI 491 - Independent Research or Internship in Materials Science I**

Undergraduate research in materials science or an undergraduate internship in materials science in industry under supervision.

**Prerequisites & Notes:** MSCI 330.  
Credits: 3

### **MSCI 492 - Independent Research or Internship in Materials Science II**

Undergraduate research in materials science or an undergraduate internship in materials science in industry under supervision.

**Prerequisites & Notes:** MSCI 330.  
Credits: 3



# Mathematics

## Introduction

The Department of Mathematics offers majors and minors in mathematics, applied mathematics and mathematics education. Combined majors are offered in mathematics and computer science, biology and mathematics, chemistry and mathematics, economics and mathematics, and physics and mathematics. The department also offers a Master of Science degree.

By taking a significant number of graduate math courses as an undergraduate, it is possible to earn both a Bachelor of Science and a Master of Science degree in mathematics within a total of five years of study. Detailed requirements for this option are available from the Department of Mathematics.

The majors mentioned above will serve as components of a liberal education, but each one also prepares the recipient for a career in business, industry, government or education. Further information about career opportunities is available in the department office or website. Persons planning a career in almost any field will find their opportunities for interesting and challenging positions enhanced by the study of mathematics. A person who develops the ability to formulate and solve quantitative problems will be able to attack many of the complex problems of the world.

### *Mathematics*

Mathematics has developed from attempts to find simple general laws governing the behavior of the phenomena we observe around us; phenomena as diverse as the motion of the planets, the evolution of biological systems and the movement of traffic.

These attempts have been remarkably successful, although many problems remain to be solved. The concepts involved are profound and exciting; their development and use require imagination and careful deductive reasoning.

Mathematics reveals hidden patterns that help us understand the world around us. Now much more than arithmetic and geometry, mathematics is a diverse discipline that deals with data, measurements, and observations from science, with inference, deduction, and proof; and with mathematical models of natural phenomena, human behavior, and social systems.

As a practical matter, mathematics is a science of pattern and order. Its domain is not molecules or cells, but numbers, chance, form, algorithms, and change. As a science of abstract objects, mathematics relies on logic rather than on observation as its standard of truth, yet employs observation, simulation, and even experimentation as means of discovering truth.

The special role of mathematics in education is a consequence of its universal applicability. The results of mathematics — theorems and theories — are both significant and useful; the best results are also elegant and deep. Through its theorems, mathematics offers science both a foundation of truth and a standard of certainty.

In addition to theorems and theories, mathematics offers distinctive modes of thought which are both versatile and powerful, including modeling, abstraction, optimization, logical analysis, inference from data, and use of symbols. Experience with mathematical modes of thought builds mathematical power — a capacity of mind of increasing value in this technological age that enables one to read critically, to identify fallacies, to detect bias, to assess risk, and to suggest alternatives.

Mathematics empowers us to understand better the information-laden world in which we live.

— Excerpts from *Everyone Counts: A Report to the Nation on the Future of Mathematics Education*  
© 1989, National Academy of Sciences

The purpose of the mathematics and applied mathematics majors is to acquaint the student with mathematical concepts; to provide the student with the tools needed to apply the concepts in other fields; and to continue to learn and develop new ideas.

A student primarily interested in the application of mathematical ideas in another field should elect the major in applied mathematics or one of the combined majors. A student who is interested in some branch of mathematics itself, or who is considering graduate study in mathematics, should choose the mathematics

major. A student considering a career as an actuary should consult the department website for specific course suggestions. A student who is unsure about future plans should probably consult the department website for a mathematics major and adviser.

## Faculty

**TJALLING J. YPMA** (1987) Chair and Professor. BSc, University of Cape Town; MSc, DPhil, Oxford University.

**EDOH Y. AMIRAN** (1989) Associate Professor. BA, University of Chicago; PhD, Massachusetts Institute of Technology.

**AMY D. ANDERSON** (2007) Associate Professor. BS, Central Washington University; MA, University of Oregon; PhD, University of Washington.

**ARPAD BENYI** (2005) Professor. BS, MS, West University of Timisoara, Romania; MA, PhD, University of Kansas-Lawrence.

**DONALD R. CHALICE** (1967) Associate Professor. BA, University of Wisconsin; MA, PhD, Northwestern University.

**VICTOR CHAN** (2001) Associate Professor. BA, Whitman College; MS, State University of New York-Stony Brook; MS, PhD, Iowa State University.

**JESSICA S. COHEN** (2010) Assistant Professor. BS, Western Oregon University; MS, PhD, Oregon State University

**BRANKO CURGUS** (1988) Professor. BS, MS, PhD, University of Sarajevo.

**RICHARD J. GARDNER** (1991) Professor. BSc, PhD, University College, London; DSc, University of London.

**TILMANN E.C. GLIMM** (2005) Associate Professor. First Degree, Technische Universitat, Berlin; MS, PhD, Emory University.

**DAVID A. HARTENSTINE** (2004) Associate Professor. BA, University of Pennsylvania; PhD, Temple University, Philadelphia.

**JERRY L. JOHNSON** (1984) Professor. BA, Augsburg College; MS, California Institute of Technology; MA, University of California-Los Angeles; PhD, University of Washington.

**MILLIE J. JOHNSON** (1991) Associate Professor. BS, University of Minnesota; MEd, University of Washington.

**STEPHEN R. MCDOWALL** (2001) Professor. BS, MS, University of Canterbury, New Zealand; PhD, University of Washington.

**KIMBERLY A. MARKWORTH** (2010) Assistant Professor. BA, Dartmouth; M.Ed. Harvard; PhD, University of North Carolina, Chapel Hill.

**ADAM NYMAN** (2008) Associate Professor. BS, Massachusetts Institute of Technology; PhD, University of Washington.

**THOMAS T. READ** (1967) Professor. BA, Oberlin College; MA, PhD, Yale University.

**AMITES SARKAR** (2007) Associate Professor. BA, PhD, Cambridge University.

**YUN-QIU SHEN** (1988) Professor. BS, University of Science and Technology of China; MS, PhD, Michigan State University.

**STEPHANIE A. TRENEER** (2008) Associate Professor. BA, Whitman College; PhD, University of Illinois at Urbana-Champaign.

**JIANYING ZHANG** (2006) Associate Professor. BS, MS, Tsinghua University; PhD, University of California-Santa Barbara.

## Declaration Process

Students who intend to complete a major in the department are urged to declare the major formally at an early point in their Western career so that a program of study can be planned in collaboration with a departmental advisor. This does not in any way decrease the opportunity to change plans, but does ensure constructing an efficient program which is not subject to future catalog revisions.

## Departmental Honors

The mathematics department offers two means of recognition for outstanding students. One, Graduation with Merit in Mathematics, is an award which recognizes outstanding scholastic achievement in courses required for the major. The second, Graduation with Distinction in Mathematics, is a program which rewards exceptional achievement in mathematics as evidenced by meeting all the requirements for Graduation with Merit and completing certain additional requirements detailed below. While Graduation with Merit is automatically conferred on all students who qualify, students must apply to the Chair of the Department of Mathematics to participate in the program for Graduation with Distinction in Mathematics.

Students interested in these programs should also inquire into the possibility of earning both a Bachelor of Science and a Master of Science degree in mathematics within five years of study. Detailed requirements for this option are available from the Department of Mathematics.

### *Graduation with Merit*

To graduate with Merit in mathematics, a student must complete one of the majors or combined majors offered by mathematics alone or by mathematics in cooperation with another department.

The student's program must include at least 32 quarter hours of mathematics or math-computer science courses taken at Western, including MATH 225, 304 and 312 and at least 23 approved credits at the 400 level or above. The cumulative GPA for mathematics and math-computer science classes taken at Western must be at least 3.6.

### *Graduation with Distinction*

To graduate with Distinction in mathematics, a student must meet all the requirements for graduation with Merit in mathematics.

Furthermore, the student must successfully complete:

- A comprehensive examination covering MATH 124, 125, 224, 225, 226, 204, 331
- An approved senior project

The comprehensive examination should be taken no later than the junior year. This examination may be retaken if necessary, but must be passed no later than fall of the senior year and before beginning the senior project.

The senior project is subject to approval of the Undergraduate Committee and is undertaken under the direction of a faculty member. It includes some independent work, the preparation of a report and a colloquium presentation. The senior project constitutes a course at the 400 level and is letter graded with 4 credits applicable towards the major.

Students interested in graduating with Distinction in mathematics should declare their interest to the Chair of the Department of Mathematics at an early point in their career at Western in order to receive appropriate advice and guidance.

## Other Departmental Information

### *Mathematics Education*

The Bachelor of Arts in Education major may be completed with either of two concentrations; one prepares the graduate for teaching mathematics on the secondary level, the other concentrates on the elementary level. Those who intend to pursue one of these concentrations must complete certain courses in calculus, linear algebra, discrete mathematics, statistics, number theory, geometry, the history of mathematics, and computer science. Successful completion of these courses provides a good part of the training necessary for technical expertise in the classroom.

The elementary concentration emphasizes breadth in mathematics. Breadth of experience is important so that the teacher can expose elementary students to a wide variety of mathematical topics. The specialist in mathematics on the elementary level must be particularly skilled at transforming the material mastered in college to a form suitable for the level in question.

Secondary majors learn the methods of teaching mathematics in MATH 483; elementary majors learn such methods in MATH 381, 382, 383 and 491.

Students who wish to teach mathematics on the secondary level also can gain certification in mathematics by completing any one of the Bachelor of Science majors in mathematics, applied mathematics or mathematics-computer science. In addition to the requirements for the major, they are expected to complete these courses: MATH 302, MATH 360, MATH 419 and MATH 483.

Recommendation for teaching endorsement requires the completion of the major with a minimum grade point average of 2.50 in the courses required for the major. The state of Washington requires a minimum grade of C (2.0) or better for all courses used to meet major certification or endorsement requirements. To gain the Initial Teaching Certificate, students must also complete a program of studies in professional education, including student teaching. Early in their careers at Western students should seek formal advisement on the appropriate program in education. It is essential that the interested reader consult the Elementary Education and Secondary Education sections of this catalog for further information.

#### *Academic Placement*

Initial placement in most mathematics courses at Western is on the basis of the results of an appropriate placement test, except for some students who have successfully completed at least one quarter of calculus or precalculus in college. Full information on which test to take and how to take it is available from the admissions office or the mathematics department. Mathematics placement tests are administered throughout the state of Washington each year, and both freshmen and transfer students who are residents in Washington are advised to take the appropriate examination prior to arrival on campus.

Students who have completed at least one year of high school calculus or at least one quarter of college calculus should consult a departmental advisor before registering.

Except by permission of the chair of the Department of Mathematics, a student may not receive credit for any of MATH 101, 106, 107, 112, 114, 115, 118, 156 or 157 if that course is completed after completion of any higher numbered course in this list or after completion of a course in calculus for which college credit has been received.

#### *Advice to Entering Students*

The Bachelor of Science degrees in mathematics, applied mathematics and mathematics-computer science are based on the following core:

- MATH 124, MATH 125, MATH 224, MATH 226 (calculus)
- MATH 204, MATH 304 (linear algebra)
- Either MATH 302 or MATH 309
- MATH 312 (proofs in elementary analysis)
- One of CSCI 139, CSCI 140, CSCI 141, MATH 307; (M/CS majors should complete CSCI 141)

The Bachelor of Arts-Secondary Education degree has the same core except for

- MATH 304, MATH 312 and requires both MATH 302 and MATH 309

These courses, except for MATH 304 and MATH 312, represent the minimum that a student planning one of these majors should complete during the first two years. A well-prepared student will be able to build a stronger program, possibly including some graduate-level courses in the senior year, by completing MATH 225 some 300-level work chosen under advisement in addition to the list above. In particular, Math 331 (differential equations) will be suitable for many students.

Transfer students, especially those intending to enter Western with an Associate of Arts degree, should normally complete as much as possible of the core program above prior to entering Western, and certainly including the entire calculus sequence and linear algebra. Students should be aware that 200-level differential equations courses may not transfer as equivalent to MATH 331, and that certain third quarter calculus courses also may not transfer as equivalent to either MATH 224 or 226.

The Bachelor of Arts major in mathematics provides exposure to a wide range of courses but, relative to the Bachelor of Science major, has fewer requirements for courses in analysis and other upper-division courses. A

# MATHEMATICS

Bachelor of Science major in mathematics is generally more appropriate than a Bachelor of Arts major in mathematics for students intending to pursue graduate studies in any mathematically intensive discipline. Instructors in many courses require that students use a graphing calculator. Students should contact the department for recommendations before purchasing a calculator.

## *Accelerated BS-MS Program*

By taking a significant number of graduate math courses as an undergraduate, it is possible to earn both a Bachelor of Science and a Master of Science degree in mathematics within five years of study. Detailed requirements for this option are available from the Department of Mathematics.

## *Enrollment Preference for Majors*

The department will give enrollment preference for certain high-demand courses to its majors.

## *Information*

Those interested in the study of mathematics are welcome to write, phone or visit the Chair of the Department of Mathematics, Western Washington University, Bellingham WA 98225, phone 360-650-3785.

## **Graduate Study**

For a concentration leading to the Master of Science degree, see the *Graduate School* section of this catalog. By taking a significant number of graduate math courses as an undergraduate, it is possible to earn both a Bachelor of Science and a Master of Science degree in mathematics within five years of study. Detailed requirements for this option are available from the Department of Mathematics.

## **Bachelor of Arts**

### **Economics/Mathematics, BA (see Economics Department)**

Economics/Mathematics, BA (see Economics Department)

### **Mathematics, BA**

Department of Mathematics, College of Sciences and Technology

### **70 credits in mathematics plus 18-21 credits in supporting courses**

#### **Introduction/What is the Study of Mathematics?**

"Mathematics reveals hidden patterns that help us understand the world around us. Now much more than arithmetic and geometry, mathematics today is a diverse discipline that deals with data, measurements, and observations from science; with inference, deduction, and proof; and with mathematical models of natural phenomena, of human behavior, and of social systems.

As a practical matter, Mathematics is a science of pattern and order. Its domain is not molecules or cells, but numbers, chance, form, algorithms, and change. As a science of abstract objects, Mathematics relies on logic rather than on observation as its standard of truth, yet employs observation, simulation, and even experimentation as means of discovering truth." From: *Everybody Counts: A Report to the Nation on the Future of Mathematics Education* (c) 1989 National Academy of Sciences.

#### **Why Consider a Mathematics Major?**

"The special role of Mathematics in education is a consequence of its universal applicability. The results of Mathematics-theorems and theories-are both significant and useful; the best results are also elegant and

deep. Through its theorems, Mathematics offers science both a foundation of truth and a standard of certainty.

In addition to theorems and theories, Mathematics offers distinctive modes of thought which are both versatile and powerful, including modeling, abstraction, optimization, logical analysis, inference from data, and use of symbols. Experience with mathematical modes of thought builds mathematical power—a capacity of mind of increasing value in this technological age that enables one to read critically, to identify fallacies, to detect bias, to assess risk, and to suggest alternatives. Mathematics empowers us to understand better the information-laden world in which we live. " From: Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences

Empowered with the critical thinking skills that Mathematics develops, recent Mathematics graduates from Western have obtained positions in a variety of fields including actuarial science, cancer research, computer software development, business management and the movie industry. The skills acquired in our program have prepared graduates for further academic studies in Mathematics, Computer Science, Physics, Biology, Chemistry, Oceanography and Education.

Compared to the BS Mathematics major, the BA has fewer advanced requirements and provides greater flexibility in the choice of courses to take.

Contact Information

**Department Chair**

Tjalling Ypma  
 Bond Hall 202A  
 360-650-3785  
 Tjalling.Ypma@wwu.edu

**Undergraduate Advisor**

Mathematics Department Office  
 Bond Hall 202  
 360-650-3785  
 Math.Department@wwu.edu

Sample Careers

Actuary | Research Analyst | Statistician | Biostatistician | Math Teacher | Demographer | Database Administrator | Information Scientist | Modeler

Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Students who intend to complete a major in Mathematics are urged to declare the major formally at an early point in their Western career so that a program of study can be planned carefully in collaboration with a departmental advisor.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

Requirements

Choose either:

- MATH 124 - Calculus and Analytic Geometry I
- MATH 125 - Calculus and Analytic Geometry II

OR

- MATH 134 - Calculus I Honors
- MATH 135 - Calculus II Honors

OR

- MATH 138 - Accelerated Calculus

Choose either:

- MATH 204 - Elementary Linear Algebra

# MATHEMATICS

MATH 331 - Ordinary Differential Equations

OR

- MATH 203 - Linear Algebra and Differential Equations I
- MATH 303 - Linear Algebra and Differential Equations II
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 226 - Limits and Infinite Series
- MATH 331 - Ordinary Differential Equations
- One course from:
  - MATH 341 - Probability and Statistical Inference
  - MATH 441 - Probability
- One course from:
  - MATH 419 - Historical Perspectives of Mathematics
  - MATH 420 - Topics in the History and Philosophy of Mathematics
- One course from:
  - CSCI 139 - Programming Fundamentals in Python
  - CSCI 140 - Programming Fundamentals in C++
  - CSCI 141 - Computer Programming I
  - MATH 307 - Mathematical Computing

**NOTE:** If the supporting sequence from CSCI below is chosen, this requirement is fulfilled.

- Three courses from:
    - MATH 302 - Introduction to Proofs Via Number Theory
    - MATH 304 - Linear Algebra
    - MATH 309 - Introduction to Proof in Discrete Mathematics
    - MATH 312 - Proofs in Elementary Analysis
    - MATH 360 - Euclidean and Non-Euclidean Geometry
  - Two courses from:
    - MATH 410 - Mathematical Modeling
    - M/CS 335 - Linear Optimization
    - M/CS 375 - Numerical Computation
    - M/CS 435 - Nonlinear Optimization
    - M/CS 475 - Numerical Analysis
  - Sixteen additional approved credits in mathematics or math-computer science, which includes completion of two of the following pairs:
    - One course from:
      - MATH 303 - Linear Algebra and Differential Equations II
      - MATH 331 - Ordinary Differential Equations
    - together with one of:
      - MATH 415 - Mathematical Biology
      - MATH 430 - Fourier Series and Applications to Partial Differential Equations
      - MATH 431 - Analysis of Partial Differential Equations
      - MATH 432 - Systems of Differential Equations
- Only one of the pairs from the above group can be used
- The following pair:
- MATH 341 - Probability and Statistical Inferences
- MATH 342 - Statistical Methods
- The following pair:
- MATH 401 - Introduction to Abstract Algebra
  - MATH 402 - Introduction to Abstract Algebra

The following pair:

- MATH 421 - Methods of Mathematical Analysis I
- MATH 422 - Methods of Mathematical Analysis II

The following pair:

MATH 441 - Probability

- MATH 442 - Mathematical Statistics

The following pair:

M/CS 335 - Linear Optimization

M/CS 435 - Nonlinear Optimization

The following pair:

M/CS 375 - Numerical Computation

M/CS 475 - Numerical Analysis

**NOTE:** Courses counted toward the major in the preceding boxes do not count toward the 16 credits but can serve as part (or all) of the pair.

□ One of the following sequences:

- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III

or

- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III

or

- CHEM 125 - General Chemistry I, Honors
- CHEM 126 - General Chemistry II, Honors
- CHEM 225 - General Chemistry III, Honors

or

CSCI 141 - Computer Programming I

- CSCI 145 - Computer Programming and Linear Data Structures
- CSCI 241 - Data Structures
- CSCI 301 - Formal Languages and Functional Programming

and one of:

- CSCI 305 - Analysis of Algorithms and Data Structures I
- CSCI 330 - Database Systems
- CSCI 345 - Object Oriented Design
- CSCI 401 - Automata and Formal Language Theory

or

- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- ECON 306 - Intermediate Microeconomics

and one of:

- ECON 375 - Introduction to Econometrics
- ECON 470 - Economic Fluctuations and Forecasting
- ECON 475 - Econometrics

## Bachelor of Arts in Education

### Chemistry/Mathematics - Secondary, BAE (see Chemistry Department)



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Chemistry/Mathematics - Secondary, BAE (see Chemistry Department)

## Mathematics — Elementary, BAE

Department of Mathematics, College of Sciences and Technology

### 51 credits

#### Introduction/What is the Study of Mathematics - Elementary?

"Mathematics reveals hidden patterns that help us understand the world around us. Now much more than Arithmetic and Geometry, Mathematics today is a diverse discipline that deals with data, measurements, and observations from science; with inference, deduction, and proof; and with mathematical models of natural phenomena, of human behavior, and of social systems.

As a practical matter, Mathematics is a science of pattern and order. Its domain is not molecules or cells, but numbers, chance, form, algorithms, and change. As a science of abstract objects, Mathematics relies on logic rather than on observation as its standard of truth, yet employs observation, simulation, and even experimentation as means of discovering truth." From: Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in Elementary Education offered through Woodring College of Education.

#### Why Consider a Mathematics - Elementary Major?

Teaching Mathematics is a challenge, a responsibility, and an opportunity. Learning to teach Mathematics occurs through a variety of means: the study of a wide variety of Mathematics, pedagogical preparation within a mathematical context, formal clinical preparation in education, an extended internship, and continual experiences as a student, learner, and problem solver in Mathematics.

There is a growing demand for elementary teachers with a strong background in Mathematics, but there is an even greater need for quality Mathematics teachers—elementary teachers who care about both students and Mathematics, elementary teachers who have a broad and deep understanding of Mathematics, and elementary teachers who are thoroughly professional. The responsibilities are great, but the rewards are even greater.

As a prospective elementary teacher specializing in Mathematics you need to focus on expanding your personal understanding of Mathematics and capitalizing on opportunities to work with pre-college students—as a tutor, as a classroom assistant, as a practicum student, and as a novice teacher in your internship. Are you up for it?

Contact Information		
<b>Department Chair</b> Tjalling Ypma Bond Hall 202A 360-650-3785 Tjalling.Ypma@wwu.edu	<b>Mathematics Department</b> Bond Hall 202 360-650-3785 mathdept@wwu.edu	<b>Math Education Advisor</b> Jessica Cohen Bond Hall 180 360-650-3830 Jessica.Cohen@wwu.edu <b>Math Education Advisor</b> Kimberly Markworth Bond Hall 242 360-650-6284 Kimberly.Markworth@wwu.edu
<b>Elementary Education Professional Program Information</b> Miller Hall 300	<b>Teacher Education Admissions</b> Miller Hall 150 360-650-3313	<b>Elementary Education Professional Program Advisor and Program Manager</b>

360-650-3336  
<http://www.wce.wvu.edu/Depts/ELED>

<http://www.wce.wvu.edu/admiss>

Ellen Kreider  
 Miller Hall 301D  
 360-650-7948  
[Ellen.Kreider@wvu.edu](mailto:Ellen.Kreider@wvu.edu)

Sample Careers

Elementary Teacher

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration):**

Students who intend to complete a major in Mathematics are urged to declare the major formally at an early point in their Western career so that a program of study can be planned in collaboration with a departmental advisor.

This major satisfies the academic major requirements for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in elementary education. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements. For more information on the Math Department go to Declaration of Major.

**Grade Requirements**

Recommendation for teaching endorsement normally requires completion of the major with a grade point of 2.50 or better in the required major courses. Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

Requirements

- MATH 204 - Elementary Linear Algebra
- MATH 302 - Introduction to Proofs Via Number Theory
- MATH 307 - Mathematical Computing
- MATH 309 - Introduction to Proof in Discrete Mathematics
- MATH 341 - Probability and Statistical Inference
- MATH 360 - Euclidean and Non-Euclidean Geometry
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 419 - Historical Perspectives of Mathematics
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I and
  - MATH 125 - Calculus and Analytic Geometry II
 or
- MATH 134 - Calculus I Honors and
- MATH 135 - Calculus II Honors
- or
- MATH 138 - Accelerated Calculus

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## Additional Major Requirements

### Elementary Education Professional Program Requirements (103-104 credits)

Department of Elementary Education, Woodring College of Education

#### **Introduction**

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

#### **Admission and Declaration Process**

Admission Requirements

#### **Grade Requirements**

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

#### Professional Studies Core (25 credits)

- ELED 301 - Educational Psychology I: Development and Individual Differences
- ELED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Basic Instructional Technology Skills
- I T 442 - Classroom Use of Instructional Technology (Elementary)
- SPED 364 - Teaching Each Student

#### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-79 credits)

##### One course from:

- ART 398 - Integrated Arts for Elementary Educators
- DNC 398 - Integrated Arts for Elementary Educators
- MUS 398 - Integrated Arts for Elementary Educators
- THTR 398 - Integrated Arts for Elementary Educators

##### One course from:

- ART 380 - Art Educating the Child
- DNC 433 - Creative Movement for Educators With Lab
- MUS 361 - Music for Elementary Teachers
- THTR 350 - Theatre for Youth
- THTR 351 - Creative Pedagogy
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- MATH 381 - Teaching K-8 Mathematics I

- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

## Mathematics — Secondary, BAE

Department of Mathematics, College of Sciences and Technology

### 70 credits

#### Introduction/What is the Study of Mathematics - Secondary?

"Mathematics reveals hidden patterns that help us understand the world around us. Now much more than arithmetic and geometry, mathematics today is a diverse discipline that deals with data, measurements, and observations from science; with inference, deduction, and proof; and with mathematical models of natural phenomena, of human behavior, and of social systems.

As a practical matter, Mathematics is a science of pattern and order. Its domain is not molecules or cells, but numbers, chance, form, algorithms, and change. As a science of abstract objects, Mathematics relies on logic rather than on observation as its standard of truth, yet employs observation, simulation, and even experimentation as means of discovering truth." From: Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences.

This major must be accompanied by the professional preparation program in secondary education offered through Woodring College of Education.

#### Why Consider a Mathematics - Secondary Major?

Teaching Mathematics is a challenge, a responsibility, and an opportunity. Learning to teach Mathematics occurs through a variety of means: the study of a wide variety of Mathematics, pedagogical preparation within a mathematical context, formal clinical preparation in education, an extended internship, and continual experiences as a student, learner, and problem solver in Mathematics.

Everyone aspiring to be a Mathematics teacher is aware of the demand for qualified teachers at the secondary level, but there is an even greater need for quality Mathematics teachers—teachers who care about both students and Mathematics, teachers who have a broad and deep understanding of Mathematics, and teachers who are thoroughly professional. The responsibilities are great, but the rewards are even greater.

As a prospective teacher you need to focus on expanding your personal understanding of Mathematics and capitalizing on opportunities to work with pre-college students as a tutor, as a classroom assistant, as a practicum student, and as a novice teacher in your internship. Are you up for it?

Contact Information		
<b>Department Chair</b>	<b>Mathematics Department</b>	<b>Math Education Advisors</b>
Tjalling Ypma	Bond Hall 202	Jerry Johnson
Bond Hall 202A	360-650-3785	Bond Hall 400
360-650-3785	mathdept@wwu.edu	360-650-3801
Tjalling.Ypma@wwu.edu		Jerry.Johnson@wwu.edu
		Millie Johnson
		Bond Hall 212
		360-650-3459
		Millie.Johnson@wwu.edu

# MATHEMATICS

## Secondary Education Website

<http://www.wce.wvu.edu/Depts/SEC>

## Secondary Education Professional Program Information Program Manager

Janna Cecka  
Miller Hall 401C  
360-650-3347  
Janna.Cecka@wvu.edu

## Secondary Education Program Coordinator

Debbie Gramm  
Miller Hall 401A  
360-650-3327  
Debbie.Gramm@wvu.edu

### Sample Careers

Secondary Education Teacher

### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Students who intend to complete a major in Mathematics are urged to declare the major formally at an early point in their Western career so that a program of study can be planned carefully in collaboration with a departmental advisor. For more information on the Mathematics Department go to Declaration of Major. This major must be accompanied by the professional preparation program in secondary education and leads to an endorsement in secondary mathematics. Half of the required mathematics coursework must be completed to be eligible for admission to the Woodring College of Education. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

## Grade Requirements

Recommendation for teaching endorsement normally requires completion of the major with a grade point of 2.50 or better in the required major courses. Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

## Requirements

Choose either:

- MATH 124 - Calculus and Analytic Geometry I and
- MATH 125 - Calculus and Analytic Geometry II

OR

- MATH 134 - Calculus I Honors and
- MATH 135 - Calculus II Honors

OR

- MATH 138 - Accelerated Calculus

Choose either:

- MATH 204 - Elementary Linear Algebra  
MATH 331 - Ordinary Differential Equations  
OR
- MATH 203 - Linear Algebra and Differential Equations I
- MATH 303 - Linear Algebra and Differential Equations II
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 226 - Limits and Infinite Series
- MATH 302 - Introduction to Proofs Via Number Theory
- MATH 307 - Mathematical Computing
- MATH 309 - Introduction to Proof in Discrete Mathematics
- MATH 331 - Ordinary Differential Equations
- MATH 341 - Probability and Statistical Inference

- MATH 360 - Euclidean and Non-Euclidean Geometry
- MATH 419 - Historical Perspectives of Mathematics
- MATH 483 - Methods of Teaching Secondary Mathematics
- At least four courses selected from the following:
  - MATH 304 - Linear Algebra
  - MATH 312 - Proofs in Elementary Analysis
  - MATH 401 - Introduction to Abstract Algebra
  - MATH 402 - Introduction to Abstract Algebra
  - MATH 410 - Mathematical Modeling
  - MATH 441 - Probability
  - M/CS 375 - Numerical Computation or by advisement from secondary mathematics educators.

#### Additional Requirements

#### Secondary Education Professional Program Requirements (68 credits)

- I T 444 - Classroom Use of Instructional Technology (Secondary)
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching Laboratory
- SEC 435 - Middle Level Practicum
- SEC 436 - Secondary School Practicum
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

#### **Physics/Mathematics - Secondary, BAE (see Physics Department)**

Physics/Mathematics - Secondary, BAE (see Physics Department)

## **Bachelor of Science**

### **Applied Mathematics, BS**

Department of Mathematics, College of Sciences and Technology

#### **70 credits in mathematics plus 18-21 credits in supporting courses**

#### **Introduction/What is the Study of Applied Mathematics?**

"Mathematics reveals hidden patterns that help us understand the world around us. Now much more than arithmetic and geometry, Mathematics today is a diverse discipline that deals with data, measurements, and observations from science; with inference, deduction, and proof; and with mathematical models of natural phenomena, of human behavior, and of social systems.

As a practical matter, Mathematics is a science of pattern and order. Its domain is not molecules or cells, but numbers, chance, form, algorithms, and change. As a science of abstract objects, Mathematics relies on logic rather than on observation as its standard of truth, yet employs observation, simulation, and even

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experimentation as means of discovering truth." From: Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences.

## Why Consider an Applied Mathematics Major?

The special role of Mathematics in education is a consequence of its universal applicability. The results of Mathematics-theorems and theories-are both significant and useful; the best results are also elegant and deep. Through its theorems, Mathematics offers science both a foundation of truth and a standard of certainty.

In addition to theorems and theories, Mathematics offers distinctive modes of thought which are both versatile and powerful, including modeling, abstraction, optimization, logical analysis, inference from data, and use of symbols. Experience with mathematical modes of thought builds mathematical power—a capacity of mind of increasing value in this technological age that enables one to read critically, to identify fallacies, to detect bias, to assess risk, and to suggest alternatives. Mathematics empowers us to understand better the information-laden world in which we live." From: Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences.

Empowered with the critical thinking skills that Mathematics develops, recent Mathematics graduates from Western have obtained positions in a variety of fields including actuarial science, cancer research, computer software development, business management and the movie industry. The skills acquired in our program have prepared graduates for further academic studies in Mathematics, Computer Science, Physics, Biology, Chemistry, Oceanography and Education.

Compared to the BA and BS Mathematics majors, this major requires that the student take a carefully selected sequence of courses focusing on a particular area of application of mathematics.

### Contact Information

#### Department Chair

Tjalling Ypma  
Bond Hall 202A  
360-650-3785  
Tjalling.Ypma@wwu.edu

#### Undergraduate Advisor

See Department Office  
Bond Hall 202  
360-650-3785  
Math.Department@wwu.edu

### Sample Careers

Actuary | Research Analyst | Statistician | Biostatistician | Math Teacher | Demographer | Database Administrator | Information Scientist

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Students who intend to complete a major in Mathematics are urged to declare the major formally at an early point in their Western career so that a program of study can be planned carefully in collaboration with a departmental advisor.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

Choose either:

- MATH 124 - Calculus and Analytic Geometry I
- MATH 125 - Calculus and Analytic Geometry II

OR

- MATH 134 - Calculus I Honors

- MATH 135 - Calculus II Honors
- OR
- MATH 138 - Accelerated Calculus
- Choose either:
- MATH 204 - Elementary Linear Algebra
- MATH 331 - Ordinary Differential Equations
- OR
- MATH 203 - Linear Algebra and Differential Equations I
- MATH 303 - Linear Algebra and Differential Equations II
- □ MATH 224 - Multivariable Calculus and Geometry I
- □ MATH 226 - Limits and Infinite Series
- □ MATH 304 - Linear Algebra
- □ MATH 312 - Proofs in Elementary Analysis
- □ MATH 331 - Ordinary Differential Equations
- □ M/CS 375 - Numerical Computation
- □ M/CS 475 - Numerical Analysis
- One course from:
- MATH 302 - Introduction to Proofs Via Number Theory
- MATH 309 - Introduction to Proof in Discrete Mathematics
- Choose either:
- MATH 341 - Probability and Statistical Inference
- MATH 342 - Statistical Methods
- or
- MATH 441 - Probability
- MATH 442 - Mathematical Statistics
- One course from:
- CSCI 139 - Programming Fundamentals in Python
- CSCI 140 - Programming Fundamentals in C++
- CSCI 141 - Computer Programming I
- MATH 307 - Mathematical Computing
- NOTE:** If the supporting sequence from CSCI below is chosen, this requirement is fulfilled.
- One of the following concentrations:
- Engineering Concentration:*
- MATH 225 - Multivariable Calculus and Geometry II
- MATH 438 - Introduction to Complex Variables
- One course from:
- MATH 430 - Fourier Series and Applications to Partial Differential Equations
- MATH 432 - Systems of Differential Equations
- Operations Research Concentration:*
- M/CS 335 - Linear Optimization
- M/CS 435 - Nonlinear Optimization
- MATH 410 - Mathematical Modeling
- No fewer than 3 additional credits from:
- 400- level MATH courses
- 400- level M/CS courses
- CSCI 405 - Analysis of Algorithms and Data Structures II
- CSCI 480 - Computer Graphics
- One of the following sequences:



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- PHYS 161 - Physics with Calculus I
  - PHYS 162 - Physics with Calculus II
  - PHYS 163 - Physics with Calculus III
- or
- CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
- or
- CHEM 125 - General Chemistry I, Honors
  - CHEM 126 - General Chemistry II, Honors
  - CHEM 225 - General Chemistry III, Honors
- or
- CSCI 141 - Computer Programming I
  - CSCI 145 - Computer Programming and Linear Data Structures
  - CSCI 241 - Data Structures
  - CSCI 301 - Formal Languages and Functional Programming
- and one of:
- CSCI 305 - Analysis of Algorithms and Data Structures I
  - CSCI 330 - Database Systems
  - CSCI 345 - Object Oriented Design
  - CSCI 401 - Automata and Formal Language Theory
- or
- ECON 206 - Introduction to Microeconomics
  - ECON 207 - Introduction to Macroeconomics
  - ECON 306 - Intermediate Microeconomics
- and one of:
- ECON 375 - Introduction to Econometrics
  - ECON 470 - Economic Fluctuations and Forecasting
  - ECON 475 - Econometrics

### **Biology/Mathematics, BS (see Biology Department)**

Biology/Mathematics (see Biology Department)

### **Mathematics, BS**

Department of Mathematics, College of Sciences and Technology

### **70 credits in mathematics plus 18-21 credits in supporting courses**

#### **Introduction/What is the Study of Mathematics?**

"Mathematics reveals hidden patterns that help us understand the world around us. Now much more than arithmetic and geometry, mathematics today is a diverse discipline that deals with data, measurements, and observations from science; with inference, deduction, and proof; and with mathematical models of natural phenomena, of human behavior, and of social systems.

As a practical matter, Mathematics is a science of pattern and order. Its domain is not molecules or cells, but numbers, chance, form, algorithms, and change. As a science of abstract objects, Mathematics relies on logic rather than on observation as its standard of truth, yet employs observation, simulation, and even experimentation as means of discovering truth." From: Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences.

### Why Consider a Mathematics Major?

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In addition to theorems and theories, Mathematics offers distinctive modes of thought which are both versatile and powerful, including modeling, abstraction, optimization, logical analysis, inference from data, and use of symbols. Experience with mathematical modes of thought builds mathematical power-a capacity of mind of increasing value in this technological age that enables one to read critically, to identify fallacies, to detect bias, to assess risk, and to suggest alternatives. Mathematics empowers us to understand better the information-laden world in which we live. " From: Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences.

Empowered with the critical thinking skills that Mathematics develops, recent Mathematics graduates from Western have obtained positions in a variety of fields including actuarial science, cancer research, computer software development, business management and the movie industry. The skills acquired in our program have prepared graduates for further academic studies in Mathematics, Computer Science, Physics, Biology, Chemistry, Oceanography and Education.

#### Contact Information

##### Department Chair

Tjalling Ypma  
 Bond Hall 202A  
 360-650-3785  
 Tjalling.Ypma@wwu.edu

##### Mathematics Department

Bond Hall 202  
 360-650-3785  
 Math.Department@wwu.edu

#### Sample Careers

Actuary | Research Analyst | Statistician | Biostatistician | Math Teacher | Demographer | Database Administrator | Information Scientist | Modeler

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students who intend to complete a major in Mathematics are urged to declare the major formally at an early point in their Western career so that a program of study can be planned carefully in collaboration with a departmental advisor.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry II
- OR
- MATH 134 - Calculus I Honors
- MATH 135 - Calculus II Honors
- OR

# MATHEMATICS

- MATH 138 - Accelerated Calculus
- Choose either:
  - MATH 204 - Elementary Linear Algebra
  - MATH 331 - Ordinary Differential Equations
- OR
- MATH 203 - Linear Algebra and Differential Equations I
- MATH 303 - Linear Algebra and Differential Equations II
- □ MATH 224 - Multivariable Calculus and Geometry I
- □ MATH 225 - Multivariable Calculus and Geometry II
- □ MATH 226 - Limits and Infinite Series
- □ MATH 304 - Linear Algebra
- □ MATH 312 - Proofs in Elementary Analysis
- One course from:
  - MATH 302 - Introduction to Proofs Via Number Theory
  - MATH 309 - Introduction to Proof in Discrete Mathematics
- No fewer than 31 approved credits in mathematics or math-computer science, including at least two of the following pairs:
  - One course from:
    - MATH 303 - Linear Algebra and Differential Equations II
    - MATH 331 - Ordinary Differential Equations
  - together with one of:
    - MATH 415 - Mathematical Biology
    - MATH 430 - Fourier Series and Applications to Partial Differential Equations
    - MATH 431 - Analysis of Partial Differential Equations
    - MATH 432 - Systems of Differential Equations
  - Only one of the pairs from the above group can be used
  - The following pair:
    - MATH 341 - Probability and Statistical Inference
    - MATH 342 - Statistical Methods
  - The following pair:
    - MATH 401 - Introduction to Abstract Algebra
    - MATH 402 - Introduction to Abstract Algebra
  - The following pair:
    - MATH 421 - Methods of Mathematical Analysis I
    - MATH 422 - Methods of Mathematical Analysis II
  - The following pair:
    - MATH 441 - Probability
    - MATH 442 - Mathematical Statistics
  - The following pair:
    - M/CS 335 - Linear Optimization
    - M/CS 435 - Nonlinear Optimization
  - The following pair:
    - M/CS 375 - Numerical Computation
    - M/CS 475 - Numerical Analysis

## Supporting Courses:

- At least 19 credits from 400-level courses in mathematics or math-computer science except MATH 483, and including at most one of MATH 419 or MATH 420.
- One of:

- CSCI 139 - Programming Fundamentals in Python
- CSCI 140 - Programming Fundamentals in C++
- CSCI 141 - Computer Programming I
- MATH 307 - Mathematical Computing

**NOTE:** If the supporting sequence from CSCI below is chosen, this requirement is fulfilled.

☐ One of the following sequences:

- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III

or

- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III

or

- CHEM 125 - General Chemistry I, Honors
- CHEM 126 - General Chemistry II, Honors
- CHEM 225 - General Chemistry III, Honors

or

- CSCI 141 - Computer Programming I
- CSCI 145 - Computer Programming and Linear Data Structures
- CSCI 241 - Data Structures
- CSCI 301 - Formal Languages and Functional Programming

and one of:

- CSCI 305 - Analysis of Algorithms and Data Structures I
- CSCI 330 - Database Systems
- CSCI 345 - Object Oriented Design
- CSCI 401 - Automata and Formal Language Theory

or

- ECON 206 - Introduction to Microeconomics
- ECON 207 - Introduction to Macroeconomics
- ECON 306 - Intermediate Microeconomics

and one of

- ECON 375 - Introduction to Econometrics
- ECON 470 - Economic Fluctuations and Forecasting
- ECON 475 - Econometrics

Language competency in French, German or Russian is strongly recommended for those students who may go to graduate school.

## Mathematics/Computer Science, BS

Combined major offered by the Department of Mathematics, College of Sciences and Technology and the Department of Computer Science, College of Sciences and Technology.

### 91 credits

#### Introduction/What is the Study of Mathematics/Computer Science?

Computer Science at Western is organized around the study of design and analysis techniques used to write software or programs in various application areas, along with details about the internal workings of computers (known as computer architecture and operating systems).

# MATHEMATICS

"As a practical matter, Mathematics is a science of pattern and order. Its domain is not molecules or cells, but numbers, chance, form, algorithms, and change. As a science of abstract objects, Mathematics relies on logic rather than on observation as its standard of truth, yet employs observation, simulation, and even experimentation as means of discovering truth." From: Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences

## Why Consider a Mathematics/Computer Science Major?

The Mathematics/Computer Science BS Program provides excellent preparation for graduate study or for careers in the technical, scientific and mathematical application of computers. Graduates are able to apply their knowledge and expertise in the development of computer-based solutions of complicated mathematical problems, including environmental and ecological modeling, scientific and engineering calculations, and statistical analysis.

### Contact Information

#### Mathematics Chair and Undergraduate Advisor

Tjalling Ypma  
Bond Hall 202A  
360-650-3785  
Tjalling.Ypma@wwu.edu

#### Computer Science Undergraduate Advisor

Mary Hall  
Communications Facility 459  
360-650-2300  
Mary.Hall@wwu.edu

### Sample Careers

Research Analyst | Systems Analyst | Technical Writer | Applied Science Technologist | Information Scientist

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Students are urged to declare the major formally at an early point in their Western career so that a program of study can be planned carefully in collaboration with departmental advisors. Contact the Mathematics Department when you are ready to declare this major.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- CSCI 141 - Computer Programming I
- CSCI 145 - Computer Programming and Linear Data Structures
- CSCI 241 - Data Structures
- CSCI 301 - Formal Languages and Functional Programming
- CSCI 305 - Analysis of Algorithms and Data Structures I
- CSCI 345 - Object Oriented Design
- CSCI 405 - Analysis of Algorithms and Data Structures II
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry II
- OR
- MATH 134 - Calculus I Honors
- MATH 135 - Calculus II Honors

OR

- MATH 138 - Accelerated Calculus
- Choose either:
  - MATH 204 - Elementary Linear Algebra
  - MATH 331 - Ordinary Differential Equations

OR

- MATH 203 - Linear Algebra and Differential Equations I
- MATH 303 - Linear Algebra and Differential Equations II
- □ MATH 224 - Multivariable Calculus and Geometry I
- □ MATH 226 - Limits and Infinite Series
- □ MATH 302 - Introduction to Proofs Via Number Theory
- □ MATH 312 - Proofs in Elementary Analysis
- □ MATH 331 - Ordinary Differential Equations
- One course from:
  - MATH 430 - Fourier Series and Applications to Partial Differential Equations
  - MATH 432 - Systems of Differential Equations
- One course from:
  - MATH 341 - Probability and Statistical Inference
  - MATH 441 - Probability
- One course from:
  - MATH 304 - Linear Algebra
  - MATH 401 - Introduction to Abstract Algebra
- Three courses from:
  - M/CS 335 - Linear Optimization
  - M/CS 375 - Numerical Computation
  - M/CS 435 - Nonlinear Optimization
  - M/CS 475 - Numerical Analysis
- 3 additional upper-division credits in mathematics or computer science as advised

## Master of Science

### Mathematics, Non-Thesis, MS

*College of Sciences and Technology*

#### Graduate Faculty

**Amiran, Edoh Y.**, PhD, differential geometry, smooth dynamical systems.

**Anderson, Amy D.**, PhD, statistical genetics.

**Benyi, Arpad**, PhD, harmonic analysis, partial differential equations.

**Chalice, Donald R.**, PhD, Banach algebras, complex dynamics.

**Chan, Victor**, PhD, reliability, applied statistics.

**Curgus, Branko**, PhD, differential equations, operator theory.

**Gardner, Richard J.**, DSc, geometry, tomography.

**Glimm, Tilmann**, PhD, mathematical biology, geometric optics.

**Hartenstine, David A.**, PhD, partial differential equations.

**Johnson, Jerry L.**, PhD, mathematics education.

**Johnson, Millie J.**, MEd, mathematics education.

# MATHEMATICS

**McDowall, Stephen R.**, PhD, inverse problems.

**Nyman, Adam**, PhD, algebraic geometry, ring theory.

**Read, Thomas T.**, PhD, ordinary and partial differential equations.

**Sarkar, Amites**, PhD, combinatorics, probability theory, graph theory.

**Shen, Yun-Qiu**, PhD, nonlinear differential equations, numerical analysis.

**Treener, Stephanie**, PhD, modular forms, number theory.

**Ypma, Tjalling J.**, DPhil, numerical analysis.

**Zhang, Jianying**, PhD, numerical partial differential equations.

Program Advisor: Dr. Arpad Benyi, Bond Hall 218 360-650-3710

## Program Description

The graduate program in mathematics is designed to meet the requirements of subsequent professional and academic work in advanced mathematics. Students are prepared to continue to further graduate studies or for professional employment in industry or in college teaching. The focus is on providing a strong and broad analytical foundation, together with sufficient flexibility to pursue particular interests and areas of application in greater depth.

## Goals

The program prepares students for:

- Continuing further graduate studies, or
- Professional employment in industry, or
- College teaching.

## Prerequisites/Qualification Examination

To be eligible for admission to the MS program in mathematics, a student should have completed at least the following courses or the equivalent with grades of B or better: Math 224, 304, 312, 331, CS 141 or Math 307, and two math courses at the 400 level.

A student who has not completed all of these courses but who can demonstrate strong promise of the ability to succeed in the program may be admitted with special stipulations. In such cases, the graduate advisor will, in consultation with the student, specify the conditions to be satisfied by the student in order to fully qualify for the program.

## Program Application/Admission Requirements

**Deadline:** Please see Graduate School deadlines.

**TA Deadline:** Preferred consideration will be given to applicants who have completed files by March 1.

**Specific Test Requirements:** Graduate Record Exam, General Test.

Contact the mathematics department, 360-650-3785, or see its website at [www.wvu.edu/depts/math/graduate/program.htm](http://www.wvu.edu/depts/math/graduate/program.htm) for specifics.

Graduate School Admission Link

## Program Requirements

In most cases the student's program must include at least 48 credits for the non-thesis option. At most 10 credits at the 400 level can be included in this total.

Students who have taken a significant number of graduate math courses as undergraduates at WWU may complete the graduate program with only 36 additional 500-level credits (details of this program are available from the Department of Mathematics).

The following mathematics courses or their equivalents must be completed before graduation: Math 504, 521, 522, 691 and at least one course or its equivalent from each of the following four lists

- Algebra:

- MATH 502 - Abstract Algebra
- MATH 503 - Topics in Abstract Algebra
- MATH 560 - Topics in Geometry
- MATH 564 - Graph Theory
- MATH 566 - Topics in Combinatorics
- Analysis:
  - MATH 523 - Advanced Calculus of Several Variables
  - MATH 524 - Topics in Analysis
  - MATH 525 - Topology
  - MATH 527 - Real Analysis
  - MATH 528 - Functional Analysis
  - MATH 539 - Topics in Complex Analysis
  - MATH 562 - Differential Geometry
- Decisions:
  - MATH 535 - Nonlinear Optimization
  - MATH 542 - Mathematical Statistics
  - MATH 543 - Linear Statistical Models
  - MATH 545 - Topics in Probability
  - MATH 570 - Topics in Optimization
- Applied:
  - MATH 510 - Mathematical Modeling
  - MATH 511 - Advanced Modeling
  - MATH 573 - Numerical Linear Algebra
  - MATH 575 - Numerical Analysis
  - MATH 577 - Topics in Numerical Analysis

The student's program must also include at least four of the following courses: Math 503, 511, 523, 525, 527, 528, 533, 539, 545, 560, 562, 564, 566, 570, 573, 577.

A student who has not completed a senior-level course in each of the following areas will also be required to include the indicated course or courses as part of his or her program: abstract algebra (401), second course in ordinary differential equations (432), complex analysis (538), probability or statistics (541).

Graduate teaching assistants are required to take MATH 595 during their first year of study.

## Other Requirements

### **Qualifying Examination for Candidacy**

Each student must pass a qualifying exam before being advanced to candidacy.

### **Advancement to Candidacy**

Students are advanced to candidacy when they have completed at least 12 credits of approved course work with a B or better GPA, including at least one course numbered 500 or above, and have passed the qualifying exam.

### **Project**

Every student is required to complete a project (MATH 691). The project will involve both an oral exam on the subject of the project and a colloquium presentation to the mathematical community. The project must be completed before a student may elect the thesis option. See the departmental graduate handbook for additional details.



# MATHEMATICS

## Further Information and Advice

Each student is urged to prepare a program of courses in consultation with his or her advisor as soon as possible after beginning work toward a degree. Deviations from the requirements above may be approved by the department's Graduate Committee upon request of the student's advisor. For the student's protection, such approval should be obtained before any deviations are made.

A student who wishes to include a course numbered 400, 499, 500 or 599 as part of his or her graduate degree program must obtain approval in advance from the Graduate Committee. The Graduate Committee will consider approval on the basis of a detailed written description submitted by the student not later than three weeks before the date of registration. If the course is approved for graduate credit, the description will be retained in the student's file.

## Mathematics, Thesis, MS

*College of Sciences and Technology*

## Graduate Faculty

**Amiran, Edoh Y.**, PhD, differential geometry, smooth dynamical systems.

**Anderson, Amy D.**, PhD, statistical genetics.

**Benyi, Arpad**, PhD, harmonic analysis, partial differential equations.

**Chalice, Donald R.**, PhD, Banach algebras, complex dynamics.

**Chan, Victor**, PhD, reliability, applied statistics.

**Curgus, Branko**, PhD, differential equations, operator theory.

**Gardner, Richard J.**, DSc, geometry, tomography.

**Glimm, Tilmann**, PhD, mathematical biology, geometric optics.

**Hartenstine, David A.**, PhD, partial differential equations.

**Johnson, Jerry L.**, PhD, mathematics education.

**Johnson, Millie J.**, MEd, mathematics education.

**McDowall, Stephen R.**, PhD, inverse problems.

**Nyman, Adam**, PhD, algebraic geometry, ring theory.

**Read, Thomas T.**, PhD, ordinary and partial differential equations.

**Sarkar, Amites**, PhD, combinatorics, probability theory, graph theory.

**Shen, Yun-Qiu**, PhD, nonlinear differential equations, numerical analysis.

**Treener, Stephanie**, PhD, modular forms, number theory.

**Ypma, Tjalling J.**, DPhil, numerical analysis.

**Zhang, Jianying**, PhD, numerical partial differential equations.

Program Advisor: Dr. Arpad Benyi, Bond Hall 218 360-650-3710

## Program Description

The graduate program in mathematics is designed to meet the requirements of subsequent professional and academic work in advanced mathematics. Students are prepared to continue to further graduate studies or for professional employment in industry or in college teaching. The focus is on providing a strong and broad analytical foundation, together with sufficient flexibility to pursue particular interests and areas of application in greater depth.

## Goals

The program prepares students for:

- Continuing further graduate studies, or
- Professional employment in industry, or

- College teaching.

## Prerequisites/Qualification Examination

To be eligible for admission to the MS program in mathematics, a student should have completed at least the following courses or the equivalent with grades of B or better: Math 224, 304, 312, 331, CS 141 or Math 307, and two math courses at the 400 level.

A student who has not completed all of these courses but who can demonstrate strong promise of the ability to succeed in the program may be admitted with special stipulations. In such cases, the graduate advisor will, in consultation with the student, specify the conditions to be satisfied by the student in order to fully qualify for the program.

## Program Application/Admission Requirements

**Deadline:** Please see Graduate School deadlines.

**TA Deadline:** Preferred consideration will be given to applicants who have completed files by March 1.

**Specific Test Requirements:** Graduate Record Exam, General Test.

Contact the mathematics department, 360-650-3785, or see its website at [www.wvu.edu/depts/math/graduate/program.htm](http://www.wvu.edu/depts/math/graduate/program.htm) for specifics.

[Graduate School Admission Link](#)

### Program Requirements

In most cases the student's program must include at least 45 credits (thesis option). At most 10 credits at the 400 level can be included in this total.

Students who have taken a significant number of graduate math courses as undergraduates at WWU may complete the graduate program with only 36 additional 500-level credits (details of this program are available from the Department of Mathematics).

The following mathematics courses or their equivalents must be completed before graduation: Math 504, 521, 522, and 690 and at least one course or its equivalent from each of the following four lists

#### □ Algebra:

- MATH 502 - Abstract Algebra
- MATH 503 - Topics in Abstract Algebra
- MATH 560 - Topics in Geometry
- MATH 564 - Graph Theory
- MATH 566 - Topics in Combinatorics

#### □ Analysis:

- MATH 523 - Advanced Calculus of Several Variables
- MATH 524 - Topics in Analysis
- MATH 525 - Topology
- MATH 527 - Real Analysis
- MATH 528 - Functional Analysis
- MATH 539 - Topics in Complex Analysis
- MATH 562 - Differential Geometry

#### □ Decisions:

- MATH 535 - Nonlinear Optimization
- MATH 542 - Mathematical Statistics
- MATH 543 - Linear Statistical Models
- MATH 545
- MATH 570 - Topics in Optimization

# MATHEMATICS

## □ Applied:

- MATH 510 - Mathematical Modeling
- MATH 511 - Advanced Modeling
- MATH 573 - Numerical Linear Algebra
- MATH 575 - Numerical Analysis
- MATH 577 - Topics in Numerical Analysis

□ The student's program must also include at least four of the following courses: Math 503, 511, 523, 525, 527, 528, 533, 539, 545, 560, 562, 564, 566, 570, 573, 577.

A student who has not completed a senior-level course in each of the following areas will also be required to include the indicated course or courses as part of his or her program: abstract algebra (401), second course in ordinary differential equations (432), complex analysis (538), probability or statistics (541).

Graduate teaching assistants are required to take MATH 595 during their first year of study.

## Other Requirements

### **Qualifying Examination for Candidacy**

Each student must pass a qualifying exam before being advanced to candidacy.

### **Advancement to Candidacy**

Students are advanced to candidacy when they have completed at least 12 hours of approved course work with a B or better GPA, including at least one course numbered 500 or above, and have passed the qualifying exam.

### **Project**

Every student is required to complete a project (MATH 691). The project will involve both an oral exam on the subject of the project and a colloquium presentation to the mathematical community. The project must be completed before a student may elect the thesis option. See the departmental graduate handbook for additional details.

### **Further Information and Advice**

Each student is urged to prepare a program of courses in consultation with his or her advisor as soon as possible after beginning work toward a degree. Deviations from the requirements above may be approved by the department's Graduate Committee upon request of the student's advisor. For the student's protection, such approval should be obtained before any deviations are made.

A student who wishes to include a course numbered 400, 499, 500 or 599 as part of his or her graduate degree program must obtain approval in advance from the Graduate Committee. The Graduate Committee will consider approval on the basis of a detailed written description submitted by the student not later than three weeks before the date of registration. If the course is approved for graduate credit, the description will be retained in the student's file.

## **Minor**

### **Mathematics Minor**

Department of Mathematics, College of Sciences and Technology

**35 credits**

## Introduction/What is the Study of Mathematics?

### Why Consider a Mathematics Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Declaration of Major

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

Choose either:

- MATH 124 - Calculus and Analytic Geometry I
- MATH 125 - Calculus and Analytic Geometry II

or

- MATH 134 - Calculus I Honors
- MATH 135 - Calculus II Honors

or

- MATH 138 - Accelerated Calculus
- MATH 204 - Elementary Linear Algebra
- MATH 224 - Multivariable Calculus and Geometry I

One course from:

- CSCI 139 - Programming Fundamentals in Python
- CSCI 140 - Programming Fundamentals in C++
- CSCI 141 - Computer Programming I
- MATH 307 - Mathematical Computing

12 credits of approved electives from:

- MATH 225 - Multivariable Calculus and Geometry II
- MATH 226 - Limits and Infinite Series

And upper-division courses except:

- MATH 307 - Mathematical Computing
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 483 - Methods of Teaching Secondary Mathematics
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics

NOTE: The pair MATH 203-303 may be substituted for MATH 204 and 4 credits of approved electives.

## Mathematics – Secondary Minor

Department of Mathematics, College of Sciences and Technology

### 41 credits

#### Introduction/What is the Study of Mathematics?

This minor leads to endorsement in secondary mathematics when accompanied by the professional program in secondary education and a qualifying endorsement in another content area. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### Why Consider a Mathematics Secondary Minor?

##### Contact Information

##### Sample Careers

##### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Declaration of Major

#### Grade Requirements

Recommendation for teaching endorsement normally requires completion of the major with a grade point of 2.50 or better in the required major courses. Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

#### Requirements

- MATH 204 - Elementary Linear Algebra
- MATH 302 - Introduction to Proofs Via Number Theory
- MATH 307 - Mathematical Computing
- MATH 309 - Introduction to Proof in Discrete Mathematics
- MATH 341 - Probability and Statistical Inference
- MATH 360 - Euclidean and Non-Euclidean Geometry
- MATH 419 - Historical Perspectives of Mathematics
- MATH 483 - Methods of Teaching Secondary Mathematics
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I
  - MATH 125 - Calculus and Analytic Geometry II
- or
- MATH 134 - Calculus I Honors
- MATH 135 - Calculus II Honors
- or
- MATH 138 - Accelerated Calculus

Additional Requirements

Secondary Education Professional Program Requirements (68 credits)

- I T 444 - Classroom Use of Instructional Technology (Secondary)
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching Laboratory
- SEC 435 - Middle Level Practicum
- SEC 436 - Secondary School Practicum
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

## Mathematics Courses

### **MATH 099 - Introductory Algebra**

Gain skill working with algebraic language and concepts using graphs, tables and algebraic expressions and equations in order to prepare for math 112. Develop problem solving abilities and understanding. Polynomials, exponents, roots, radicals, and linear equations and inequalities and their graphs. Pass/Fail grading.

**Prerequisites & Notes:** NOTE: This course will fulfill 5 credits towards financial aid and veterans benefits requirements only. No credit will be allowed toward the graduation requirement of 180 credits.

Credits: 5

### **MATH 101 - Functions and Algebraic Methods for K-8 Teachers**

Designed for prospective K-8 teachers. Emphasizes pattern recognition and generalization, building mathematical models and problem solving. Supporting topics include polynomials, linear and quadratic equations, inequalities, graphs, rational expressions and functions. Graphing calculators required. Cannot be counted toward majors or minors in mathematics or computer science.

**Prerequisites & Notes:** Suitable General Math Placement Test score or college intermediate algebra course with a C- or better; instructor

permission.

Credits: 5

### **MATH 106 - Quantitative Reasoning**

Develops abilities to understand quantitative information and make reasoned decisions using it. Focus is on reasoning and symbolic and quantitative models as they are commonly encountered in personal life, careers and public issues.

Credits: 4

### **MATH 107 - Mathematical Reasoning and Its Applications**

Reading quantitative information, reasoning, personal finance, data display and summary, assessing risk; quantitative decisions in life, careers, and public issues. Students interested in taking higher level mathematics courses should instead take a course from MATH 112, 114, 118, 124, 156, 157 or 240. Note: This course is not an acceptable prereq for MATH 112.

**Prerequisites & Notes:** Suitable General Math Placement Test score or C- or better in MATH 112 or MATH 106, or college intermediate algebra course.

# MATHEMATICS

Credits: 4

GUR Attributes: QSR

## **MATH 112 - Functions and Algebraic Methods**

Pattern recognition and generalization, building mathematical models and problem solving are emphasized. Supporting topics include polynomials, linear and quadratic equations, inequalities, graphs, rational expressions, radicals and functions. Graphing calculator required. Cannot be counted toward majors or minors in mathematics or computer science.

**Prerequisites & Notes:** Suitable General Math Placement Test score, MATH 99 or completion of a college intermediate algebra course with a C- or better. Note: Neither MATH 106 nor MATH 107 is acceptable pre-requisite for this course.

Credits: 5

GUR Attributes: QSR

## **MATH 114 - Precalculus I**

Data analysis, functions as mathematical models, functions and their graphs. Graphing calculators are required. Cannot be counted toward majors or minors in mathematics or computer science. Students needing math for GUR purposes only should consider MATH 107 instead of MATH 114.

**Prerequisites & Notes:** Suitable General Math Placement Test score or MATH 112 with a C- or better.

Credits: 5

GUR Attributes: QSR

## **MATH 115 - Precalculus II**

Data analysis, modeling, trigonometry, inverse functions. Graphing calculator required. Cannot be counted toward majors or minors in mathematics or computer science.

**Prerequisites & Notes:** MATH 114 with a C- or better at Western

Credits: 5

GUR Attributes: QSR

## **MATH 118 - Accelerated Precalculus**

Not open to students who have taken a lower numbered mathematics course at Western. Functions as mathematical models, functions and their graphs, inverse functions, trigonometry.

Graphing calculator required. Cannot be counted toward majors or minors in mathematics or computer science.

**Prerequisites & Notes:** Suitable General or Advanced Math Placement Test score

Credits: 5

GUR Attributes: QSR

## **MATH 119A - Topics in Mathematics**

A supplement to one or more math courses offered at the 100 level. Repeatable, subject to permission of department.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 1-15

## **MATH 119B - Topics in Mathematics**

A supplement to one or more math courses offered at the 100 level. Repeatable, subject to permission of department. S/U grading.

**Prerequisites & Notes:** Permission on instructor.

Credits: 1-15

Grade Mode: S/U

## **MATH 124 - Calculus and Analytic Geometry I**

Average and instantaneous rates of change, interpretation, computation, and application of derivatives to optimization, rates, graphing, and antiderivative problems. Graphing calculator required.

**Prerequisites & Notes:** Suitable Advanced Math Placement Test score or C- or better in MATH 115 or MATH 118 at WWU or a grade of 2.5 or higher in the final quarter of a college precalculus sequence.

Credits: 5

GUR Attributes: QSR

## **MATH 125 - Calculus and Analytic Geometry II**

The definite integral, techniques of integration, applications including area and volume, growth and decay, introduction to differential equations.

**Prerequisites & Notes:** MATH 124 or MATH 134.  
Credits: 5

## **MATH 134 - Calculus I Honors**

Intended for particularly strong students. Average and instantaneous rates of change, interpretation,

computation, and application of derivatives to optimization, rates, graphing, and antiderivative problems. Frequent writing assignments. Graphing calculator required.

**Prerequisites & Notes:** Suitable score on the Advanced Mathematics Placement test or an A in MATH 115 or MATH 118, and permission of instructor.  
Credits: 5  
GUR Attributes: QSR

**MATH 135 - Calculus II Honors**

Intended for particularly strong students. Riemann sums and the definite integral, interpretation and application to area, volume, growth and decay, techniques of integration. Introduction to differential equations. Frequent writing assignments.

**Prerequisites & Notes:** MATH 124 or MATH 134, and permission of instructor.  
Credits: 5

**MATH 138 - Accelerated Calculus**

Designed for entering freshmen who are thoroughly familiar with the computational aspects of single variable calculus. Students study selected topics from MATH 124 and 125 from a more conceptual point of view. Students who complete this course receive five credits of advanced placement (unless previously received). Not open to students who have taken MATH 124 or 125. Offered fall quarter only. AP mathematics credit and MATH 138 are equivalent to MATH 124 and 125.

**Prerequisites & Notes:** One year AP-level High School calculus; suitable score on the Advanced Math Placement Test and permission of instructor.  
Credits: 5

**MATH 156 - Algebra With Applications to Business and Economics**

Equations and inequalities, graphs and functions, exponential and logarithmic functions, applications to finance. This course is designed for business students continuing on to MATH 157.

**Prerequisites & Notes:** Suitable General Math Placement Test score or MATH 112 with a C- or

better.  
Credits: 4  
GUR Attributes: QSR

**MATH 157 - Calculus With Applications to Business and Economics**

Limits, rates of change, differentiation, graphing and optimization, integration, business applications, partial differentiation. MATH 124 may be substituted for MATH 157 but not vice versa. Cannot be taken for credit by a student who has already completed another college-level calculus course.

**Prerequisites & Notes:** Suitable Advanced Math Placement Test score or C- or better in MATH 156, MATH 114 or MATH 118; or a final precalculus course with a C+ or better from an accredited college.  
Credits: 4  
GUR Attributes: QSR

**MATH 203 - Linear Algebra and Differential Equations I**

First course in the 203-303 sequence. A unified treatment of the material on elementary linear algebra and elementary differential equations covered in MATH 204 and 331. Together with MATH 303, is equivalent to MATH 204 and MATH 331.

**Prerequisites & Notes:** MATH 125 or MATH 135 or equivalent  
Credits: 4

**MATH 204 - Elementary Linear Algebra**

Systems of linear equations; matrices; the vector space  $R^n$ ; linear independence, bases, subspaces and dimension in  $R^n$ ; introduction to determinants and the eigenvalue problem; applications.

**Prerequisites & Notes:** MATH 125 or MATH 135; MATH 224 recommended  
Credits: 4

**MATH 205 - Linear Algebra Workshop**

Elementary linear algebra projects on a computer. S/U grading.

**Prerequisites & Notes:** Math 204 or concurrent.



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Credits: 1

Grade Mode: S/U

## **MATH 220 - Visualization in Multivariable Calculus**

Weekly lab projects emphasizing the creation and interpretation of computer-generated graphs and contour diagrams for functions of several variables. Problems are drawn from material being studied in MATH 224. S/U grading.

**Prerequisites & Notes:** Math 224 or concurrent.

Credits: 1

Grade Mode: S/U

## **MATH 224 - Multivariable Calculus and Geometry I**

Coordinate systems, curves and vectors in the plane and in space, partial derivatives, applications including optimization and motion, multiple integrals.

**Prerequisites & Notes:** MATH 125 or MATH 135, or MATH 138

Credits: 5

## **MATH 225 - Multivariable Calculus and Geometry II**

Multiple integrals, line and surface integrals, gradient fields, Green's and Stokes' theorems.

**Prerequisites & Notes:** MATH 224

Credits: 4

## **MATH 226 - Limits and Infinite Series**

Formal treatment of limits of functions and sequences of continuity, including a thorough training in constructing rigorous proofs of the epsilon-delta type. Convergence tests for infinite series. Radius of convergence, differentiation, and integration of Taylor series.

**Prerequisites & Notes:** MATH 125, MATH 135 or MATH 138

Credits: 4

## **MATH 240 - Introduction to Statistics**

Descriptive statistics, basic ideas of probability, normal distribution, sampling distributions, confidence intervals, hypothesis testing, contingency tables, and one-way analysis of

variance. Use of a statistical software package.

Cannot be counted toward any major in the Department of Mathematics.

**Prerequisites & Notes:** Suitable General Math Placement Test score or MATH 112 or a precalculus course with a C+ or better from an accredited college.

Credits: 4

GUR Attributes: QSR

## **MATH 245 - Statistics for Engineering Technology**

Descriptive statistics, basic probability, discrete distributions, normal distribution, statistical methods used in engineering.

**Prerequisites & Notes:** MATH 115 or MATH 118.

Credits: 3

## **MATH 302 - Introduction to Proofs Via Number Theory**

The properties of integers, prime numbers, Euclidean algorithm, congruences. The student is expected to develop competence in proving basic results in number theory.

**Prerequisites & Notes:** MATH 125 or MATH 135 or MATH 138

Credits: 4

## **MATH 303 - Linear Algebra and Differential Equations II**

Second course in the MATH 203-303 sequence. A unified treatment of the material on elementary linear algebra and elementary differential equations covered in MATH 204 and 331. Together with MATH 203, is equivalent to MATH 204 and MATH 331.

**Prerequisites & Notes:** MATH 203

Credits: 4

## **MATH 304 - Linear Algebra**

Orthogonality and orthogonal bases; linear transformations and the least squares problem; further study of eigenvalues and eigenvectors and their applications; abstract vector spaces and linear transformations.

**Prerequisites & Notes:** MATH 204, MATH 224

Credits: 4

**MATH 307 - Mathematical Computing**

Use of mathematical software such as Matlab and Mathematica. Elementary programming, numerical and symbolic computation, visualization and technical reporting in mathematical context.

**Prerequisites & Notes:** MATH 125 or MATH 135 or MATH 138; MATH 204  
Credits: 4

**MATH 309 - Introduction to Proof in Discrete Mathematics**

Logic, sets, functions, sequences, counting methods, graph theory. The student is expected to develop competence in proving basic results in discrete mathematics.

**Prerequisites & Notes:** MATH 125  
Credits: 4

**MATH 312 - Proofs in Elementary Analysis**

Open and closed sets in the line and plane, sequences, least upper bound axiom, continuous functions and their properties. The student is expected to develop competence in proving basic theorems involving these concepts.

**Prerequisites & Notes:** MATH 226; MATH 302 or MATH 309. Restricted to majors and minors during Registration Phase 1.  
Credits: 4

**MATH 321 - Mathematics for Technology**

A survey of topics from differential equations and the Laplace Transform. Designed especially for students majoring in engineering technology. Students may count only one of MATH 321 or MATH 331 toward any major or minor in the Department of Mathematics.

**Prerequisites & Notes:** MATH 125 or MATH 135  
Credits: 4

**MATH 331 - Ordinary Differential Equations**

First order equations, first order systems (primarily linear), applications and modeling, qualitative reasoning. First course in the 331-432 sequence.

**Prerequisites & Notes:** Math 204; Math 224

recommended or concurrent.

Credits: 4

**MATH 341 - Probability and Statistical Inference**

Probability, including combinatorial methods, discrete distributions and continuous distributions using integrals. Descriptive statistics and the use of computer statistical package. Statistical inference, including confidence intervals and hypothesis testing.

**Prerequisites & Notes:** MATH 125 or MATH 135 or MATH 138  
Credits: 4

**MATH 342 - Statistical Methods**

Statistical techniques including chi-square tests, simple and multiple linear regression, and one-way analysis of variance. Extensive use of a computer statistical package.

**Prerequisites & Notes:** MATH 341  
Credits: 4

**MATH 360 - Euclidean and Non-Euclidean Geometry**

Metric development of Euclidean geometry and consideration of non-Euclidean geometries.

**Prerequisites & Notes:** MATH 125 or MATH 135 or MATH 138; MATH 204 and MATH 302 or MATH 309.  
Credits: 4

**MATH 381 - Teaching K-8 Mathematics I**

Investigations of mathematics topics that focus on logical reasoning, number concepts, and number operations. Emphasis on problem solving, the use of manipulatives and computing technologies, remediation and resource materials, and optimal pedagogical techniques that help students learn quality mathematics. Not acceptable for any departmental major except BA/Ed, Elementary, and does not satisfy GUR requirement except for those who complete the BA/Ed, Elementary.

**Prerequisites & Notes:** Suitable Intermediate Math Placement Test score; C or better in MATH 112 or college intermediate algebra course; one of ELED 370, ELED 372, SPED 420, ECE 391;

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Prerequisites must have been met within the last 5 years. Waiver of MPT due to college calculus course equivalent to WWU MATH 124.

Credits: 4

## **MATH 382 - Teaching K-8 Mathematics II**

Investigations of mathematics topics that focus on proportional thinking, measurement, and informal geometry. Emphasis on problem solving, the use of manipulatives and computing technologies, remediation and resource materials, and optimal pedagogical techniques that help students learn quality mathematics. Not acceptable for any department major except BA/Ed, Elementary, and does not satisfy GUR mathematics requirement except for those who complete the BA/Ed, Elementary.

**Prerequisites & Notes:** MATH 381 with a C or better

Credits: 4

## **MATH 383 - Teaching K-8 Mathematics III**

Investigations of mathematics topics that focus on probability and statistics. Emphasis on problem solving, the use of manipulatives and computing technologies, remediation, assessment and resource materials, and optimal pedagogical techniques that help students learn quality mathematics. Not acceptable for any departmental major except BA/Ed, Elementary.

**Prerequisites & Notes:** MATH 382 with a C or better at WWU

Credits: 4

## **MATH 401 - Introduction to Abstract Algebra**

Introduction to groups, Lagrange's Theorem, isomorphisms and homomorphisms, normal subgroups and factor groups, the fundamental theorem of finite abelian groups.

**Prerequisites & Notes:** MATH 204; and MATH 302 or MATH 309.

Credits: 4

## **MATH 402 - Introduction to Abstract Algebra**

Introduction to rings and fields, ideals, polynomial rings, unique factorization domains, field extensions, finite fields.

**Prerequisites & Notes:** MATH 401

Credits: 4

## **MATH 409 - Putnam Exam Preparation**

Preparation for participation in the annual Putnam Exam. This exam involves mathematical concepts beyond those typically found in standard courses. Questions cut across the bounds of disciplines and are hard. This course covers the basics of the relevant mathematical content, particularly in discrete mathematics, and emphasizes advanced problem-solving techniques. S/U grading.

**Prerequisites & Notes:** Permission of instructor.

Credits: 2

Grade Mode: S/U

## **MATH 410 - Mathematical Modeling**

The construction and solution of mathematical models, using optimization, stability analysis, eigenvalue methods, probability and simulation.

**Prerequisites & Notes:** MATH 204, MATH 224, MATH 331

Credits: 4

## **MATH 412 - Mathematical Modeling Competition**

Preparation for participation in the national mathematics modeling competition. Repeatable with no maximum.

**Prerequisites & Notes:** instructor permission

Credits: 1

## **MATH 415 - Mathematical Biology**

An introduction to mathematical models in biology. Population models, Michaelis-Menten kinetics, models for neuron functioning, pattern formation. Mathematical topics: difference equations, dynamical systems, conservation equations, stochastic models.

**Prerequisites & Notes:** MATH 224; either MATH 204 and MATH 331, or MATH 203 and MATH 303

Credits: 4

## **MATH 419 - Historical Perspectives of Mathematics**

History and development of mathematical thought from ancient to modern times. Philosophical,

sociological and biographical perspectives.

**Prerequisites & Notes:** 12 credits upper-division math

Credits: 3

**MATH 420 - Topics in the History and Philosophy of Mathematics**

Concentrated study of a topic or a closely connected group of topics associated with the history and philosophy of mathematics. Students are required to write a substantial expository paper.

**Prerequisites & Notes:** MATH 312

Credits: 3

**MATH 421 - Methods of Mathematical Analysis I**

Introduction to metric spaces, properties of functions on metric spaces, compactness and continuity. The student is expected to develop competence in proving basic theorems involving these concepts.

**Prerequisites & Notes:** MATH 312

Credits: 4

**MATH 422 - Methods of Mathematical Analysis II**

Analysis on the real line, including uniform convergence of series, using metric space notions. The student is expected to develop competence in proving theorems involving these concepts.

**Prerequisites & Notes:** MATH 421

Credits: 4

**MATH 424 - Topics in Analysis**

Topics such as pointwise convergence of Fourier series, Gibbs phenomenon, Poisson summability, Dirichlet problem for the disc, Weierstrass approximation theorem. Repeatable to a maximum of 8 credits with various topics.

**Prerequisites & Notes:** Math 422

Credits: 4

**MATH 430 - Fourier Series and Applications to Partial Differential Equations**

An introduction to Fourier series and the Fourier transform; applications to boundary value problems including the wave and heat equations.

**Prerequisites & Notes:** MATH 204, MATH 226, MATH 331

Credits: 4

**MATH 431 - Analysis of Partial Differential Equations**

Solutions for general first order and linear second order partial differential equations. Topics from characteristics; propagation of singularities; hyperbolic, and elliptic equations; Cauchy problem; Dirichlet problem; Green's function; Poisson formula; maximum principle.

**Prerequisites & Notes:** MATH 204, MATH 225, MATH 226, MATH 312, MATH 331, or equivalent(s).

Credits: 4

**MATH 432 - Systems of Differential Equations**

Forced second order equations, systems of nonlinear differential equations, applications.

**Prerequisites & Notes:** MATH 204, MATH 331; or MATH 203, MATH 303.

Credits: 4

**MATH 438 - Introduction to Complex Variables**

Differentiation and integration of complex-valued functions; Cauchy integral theorem; calculations of residues.

**Prerequisites & Notes:** MATH 225 and MATH 312

Credits: 4

**MATH 441 - Probability**

Discrete and continuous random variables, moment generating functions, multivariate distributions, survey of widely used distributions such as normal, chi-square, gamma, t and F distributions. Emphasis on the theoretical aspects of probability.

**Prerequisites & Notes:** MATH 204, MATH 224, MATH 312

Credits: 4

**MATH 442 - Mathematical Statistics**

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Limiting distributions, the Central Limit Theorem, statistical inferences such as confidence intervals, hypothesis testing and chi-square tests, maximum likelihood methods, sufficiency.

**Prerequisites & Notes:** MATH 441 or equivalent  
Credits: 4

## **MATH 443 - Linear Statistical Models**

Matrix algebra for linear models, multivariate normal distribution, quadratic forms, Gauss-Markov Theorem, estimation in full-rank and less-than-full-rank models, hypothesis testing in full-rank models.

**Prerequisites & Notes:** MATH 441/541, and either MATH 342 or MATH 442/542, or equivalent(s).  
Credits: 4

## **MATH 473 - Numerical Linear Algebra**

Norms; fundamental matrix types, transformations and factorizations; linear equations, linear least squares; rounding error, condition and stability; the algebraic eigenvalue problem (QR method).

**Prerequisites & Notes:** MATH 304; ability to program.  
Credits: 4

## **MATH 483 - Methods of Teaching Secondary Mathematics**

Topics include pre-algebra, algebra, geometry, problem solving and resource materials.

**Prerequisites & Notes:** Minimum of two upper-division math courses, SEC 431, or permission of instructor.  
Credits: 4

## **MATH 490 - Senior Project**

Intensive study of an advanced topic in mathematics.

**Prerequisites & Notes:** Permission of the Department Chair.  
Credits: 4

## **MATH 491 - Internship Seminar - Teaching K-8 Mathematics**

Focus on issues and practices related to teaching K-8 mathematics, coordinated with the year-long K-8 classroom internship. Includes the use of ideas, theory, and lesson plans from the Mathematics 381-383 sequence in actual classroom settings, plus opportunity to assess and work with K-8 students on an individual, small group, and whole class basis. Not acceptable for any departmental major except BA/Ed, Elementary. S/U grading.

**Prerequisites & Notes:** completion of WWU Elementary Education degree requirement  
Credits: 2  
Grade Mode: S/U

## **MATH 495 - Academic or Industrial Learning and Research Experience in Math**

Participation in a learning program, research project or internship in business, industry, a government agency or academic institution. Oral and written report required. Repeatable to a maximum of 8 cr. S/U grading.

**Prerequisites & Notes:** 20 credits math above the 100-level; department permission  
Credits: 1-4  
Grade Mode: S/U

## **MATH 502 - Abstract Algebra**

Introduction to rings and fields, ideals, polynomial rings, unique factorization domains, field extensions, finite fields.

**Prerequisites & Notes:** MATH 401 or equivalent  
Credits: 4

## **MATH 503 - Topics in Abstract Algebra**

Topics such as Galois theory, number theory, group representation theory, algebraic geometry, Lie algebras. Repeatable with various topics.

**Prerequisites & Notes:** MATH 502 or equivalent  
Credits: 3

## **MATH 504 - Abstract Linear Algebra**

Abstract vector spaces, linear transformations, spectral theory.

**Prerequisites & Notes:** MATH 304 or equivalent

Credits: 4

**MATH 510 - Mathematical Modeling**

The construction and solution of mathematical models, using optimization, stability analysis, eigenvalue methods, probability and simulation.

**Prerequisites & Notes:** MATH 204, MATH 224, MATH 331  
Credits: 4

**MATH 511 - Advanced Modeling**

Exact and numerical techniques for the development and analysis of models of dynamic processes, including the construction and validation of models.

**Prerequisites & Notes:** MATH 331; instructor permission  
Credits: 4

**MATH 515 - Mathematical Biology**

An introduction to mathematical models in biology. Population models, Michaelis-Menten kinetics, models for neuron functioning, pattern formation. Mathematical topics: difference equations, dynamical systems, conservation equations, stochastic models.

**Prerequisites & Notes:** MATH 224; MATH 204 and MATH 331 or MATH 203 and MATH 303  
Credits: 4

**MATH 521 - Methods of Mathematical Analysis I**

Introduction to metric spaces, properties of functions on metric spaces, compactness and continuity.

Credits: 4

**MATH 522 - Methods of Mathematical Analysis II**

Analysis on the real line, including uniform convergence of series, using metric space notions.

**Prerequisites & Notes:** MATH 521  
Credits: 4

**MATH 523 - Advanced Calculus of Several Variables**

Parameterization, integration and changes of variables in Euclidean spaces.

**Prerequisites & Notes:** MATH 304 or equivalent; MATH 521  
Credits: 4

**MATH 524 - Topics in Analysis**

Topics such as pointwise convergence of Fourier series, Gibbs phenomenon, Poisson summability, Dirichlet problem for the disc, Weierstrass approximation theorem. Repeatable to a maximum of 8 credits with various topics.

**Prerequisites & Notes:** MATH 522  
Credits: 4

**MATH 525 - Topology**

Topological spaces, connectedness, compactness, product and quotient spaces, homotopy.

**Prerequisites & Notes:** MATH 521  
Credits: 3

**MATH 527 - Real Analysis**

Theory of Lebesgue measure and integration.

**Prerequisites & Notes:** MATH 522  
Credits: 4

**MATH 528 - Functional Analysis**

Spaces of functions, linear functionals and their representation, applications.

**Prerequisites & Notes:** MATH 522  
Credits: 4

**MATH 530 - Fourier Series and Applications to Partial Differential Equations**

An introduction to Fourier series and the Fourier transform; applications to boundary value problems including the wave and heat equations.

**Prerequisites & Notes:** MATH 204, MATH 226, MATH 331 or equivalent  
Credits: 4

**MATH 531 - Analysis of Partial Differential Equations**

Solutions for general first order and linear second order partial differential equations emphasizing

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geometric properties and integral representations. Topics include characteristics; propagation of singularities; hyperbolic, elliptic, and parabolic equations; Cauchy problem; Dirichlet problem; Green's function; Poisson formula; maximum principle.

**Prerequisites & Notes:** MATH 204, MATH 225, MATH 226, MATH 312, MATH 331, or equivalent.  
Credits: 4

## **MATH 533 - Advanced Ordinary Differential Equations**

Existence and uniqueness of solutions, stability theory for nonlinear equations, bifurcation.

**Prerequisites & Notes:** MATH 432 or equivalent; MATH 521  
Credits: 3

## **MATH 535 - Nonlinear Optimization**

Nonlinear programming with emphasis on basic theory (including Lagrange multipliers and the Kuhn-Tucker conditions), algorithms for numerical solution of problems, and applications. Introductory dynamic programming, with emphasis on applications and algorithms.

**Prerequisites & Notes:** MATH 204, MATH 224; CSCI 140 or CSCI 141 or MATH 207.  
Credits: 4

## **MATH 538 - Complex Variables**

Differentiation and integration of complex-valued functions, Cauchy integral theorem, residues.

**Prerequisites & Notes:** MATH 312 or equivalent.  
Credits: 4

## **MATH 539 - Topics in Complex Analysis**

Topics such as normal families, mapping properties of analytic functions, conformal mappings, fluid flow, Dirichlet and Neumann problems, Julia sets. Repeatable with various topics.

**Prerequisites & Notes:** MATH 521, MATH 538  
Credits: 3

## **MATH 541 - Probability**

Discrete and continuous random variables, moment generating functions, multivariate

distributions, survey of widely used distributions such as normal, chi-square, gamma, t and F distributions. Emphasis on the theoretical aspects of probability.

**Prerequisites & Notes:** MATH 204, MATH 224, MATH 312  
Credits: 4

## **MATH 542 - Mathematical Statistics**

Limiting distributions, the Central Limit Theorem, statistical inferences such as confidence intervals, hypothesis testing and chi-square tests, maximum likelihood methods, sufficiency.

**Prerequisites & Notes:** MATH 441 or equivalent  
Credits: 4

## **MATH 543 - Linear Statistical Models**

Matrix algebra for linear models, multivariate normal distribution, quadratic forms, Gauss-Markov Theorem, estimation in full-rank and less-than-full-rank models, hypothesis testing in full-rank models.

**Prerequisites & Notes:** MATH 441/541, and either MATH 342 or MATH 442/542 or equivalent(s).  
Credits: 4

## **MATH 545 - Topics in Probability**

Topics from Markov and sequential decision processes, renewal theory, inventory theory, stochastic control, random arrival and service processes, waiting time, number in queue, bulk arrivals, networks, balking. Repeatable with various topics.

**Prerequisites & Notes:** MATH 541  
Credits: 3

## **MATH 560 - Topics in Geometry**

A study of one or more topics in geometry such as convex sets, polytopes, tilings, integral geometry or combinatorial geometry. Repeatable with various topics.

Credits: 3

## **MATH 562 - Differential Geometry**

Geometry of curves, surfaces and manifolds.

**Prerequisites & Notes:** MATH 522

Credits: 4

**MATH 564 - Graph Theory**

Basic properties of graphs, trees, Eulerian and Hamiltonian circuits, genera of graphs, algorithms, applications.

Credits: 3

**MATH 566 - Topics in Combinatorics**

Counting techniques, generating functions, coding, coloring and relations with probability theory. Repeatable with various topics.

Credits: 3

**MATH 570 - Topics in Optimization**

Topics taken from nonlinear programming, calculus of variations or the theory of optimal control. Repeatable with various topics.

**Prerequisites & Notes:** MATH 304, MATH 521

Credits: 4

**MATH 573 - Numerical Linear Algebra**

Norms; fundamental matrix types, transformations and factorizations; linear equations, linear least squares; rounding error, condition and stability; the algebraic eigenvalue problem (QR method).

**Prerequisites & Notes:** MATH 304; ability to program

Credits: 4

**MATH 575 - Numerical Analysis**

Polynomial interpolation including splines, orthogonal systems of functions and least squares approximation; numerical differentiation and integration; solution of systems of nonlinear equations and unconstrained optimization.

**Prerequisites & Notes:** MATH 224, M/CS 375

Credits: 4

**MATH 577 - Topics in Numerical Analysis**

Topics from numerical optimization, approximation, linear algebra, quadrature, and the solution of algebraic and differential equations. Repeatable

with various topics.

**Prerequisites & Notes:** MATH 573 or M/CS 375

Credits: 4

**MATH 582 - Teaching Core College**

**Mathematics**

Teaching content presentation and problem solving skills in the context of core college math classes at the level of calculus and above.

**Prerequisites & Notes:** Graduate status.

Credits: 3

**MATH 595 - Teaching Algebra and Precalculus**

Curriculum and instructional support for teaching the algebra and precalculus sequence. S/U grading.

Credits: 2

Grade Mode: S/U

**MATH 599 - Mathematics Seminar**

Repeatable to a maximum of 4 cr.

Credits: 1-3

**MATH 680 - Internship in Industrial**

**Mathematics**

An internship in industry, government, or other organizations during which participants will work with people in the host organization on problems of a quantitative nature. Number of credits depends on time spent at the host organization. S/U grading.

**Prerequisites & Notes:** MATH 510, MATH 547, MATH 575 or equivalents

Credits: 2-8

Grade Mode: S/U

**MATH 690 - Thesis**

Repeatable to a maximum of 4 cr. S/U grading.

Credits: 1-4

Grade Mode: S/U

**MATH 691 - Required Project**

Repeatable to a maximum of 2 cr. S/U grading.

**Prerequisites & Notes:** advancement to



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candidacy

Credits: 1-2

Grade Mode: S/U

## Mathematics/Computer Science Courses

### **M/CS 335 - Linear Optimization**

The optimization of linear functions subject to linear constraints. Linear programming, duality theory, sensitivity analysis, applications.

**Prerequisites & Notes:** MATH 204; and one of CSCI 140 or CSCI 141 or MATH 307.

Credits: 4

### **M/CS 375 - Numerical Computation**

Computer arithmetic, solution of nonlinear equations and optimization in a single variable; matrix factorization; matrix iterative techniques.

**Prerequisites & Notes:** MATH 204; CSCI 140 or CSCI 141 or MATH 307.

Credits: 4

### **M/CS 435 - Nonlinear Optimization**

Nonlinear optimization with emphasis on basic theory (including Lagrange multipliers and the Kuhn-Tucker conditions), algorithms for numerical solution of problems, and applications. Introductory dynamic programming, with emphasis on applications and algorithms.

**Prerequisites & Notes:** MATH 204; MATH 224; MATH 331; CSCI 140 or CSCI 141 or MATH 307.

Credits: 4

### **M/CS 475 - Numerical Analysis**

Polynomial interpolation including splines, orthogonal systems of functions and least squares approximation; numerical differentiation and integration; solution of systems of nonlinear equations and unconstrained optimization.

**Prerequisites & Notes:** MATH 224, M/CS 375

Credits: 4

# Physics and Astronomy

## Introduction

Physics is the most foundational of sciences. It is the study of matter, energy, space and time. Astronomy, biology, chemistry, geology and engineering apply the principles of physics to specific problems. Almost all areas of modern technology involve applications of physics. The Department of Physics and Astronomy offers a Bachelor of Science (BS) degree in Physics and a Bachelor of Arts in Education (BAE) degree in Physics/Mathematics education. Students graduating with the BS degree in physics are well prepared for graduate school in physics, astronomy, materials science, and education as well as several fields of engineering and a variety of professions in industry.

### *Coursework*

The BS in physics is based on a core curriculum that covers fundamental theories of physics: classical mechanics, thermodynamics, electromagnetism, and quantum mechanics. Laboratory work forms an important part of the core with sophisticated upper-division laboratories in electronics, astronomy, optics, and material physics. Students planning graduate work and professional careers in astronomy should select the BS program in physics and complete the full year of 300-level astronomy courses offered in the department.

### *Research*

The Department of Physics and Astronomy values the role of research in the undergraduate experience. Students work collaboratively with peers and faculty to investigate open-ended problems of current interest. The department has research specialists in condensed matter and materials physics, astronomy, and physics education. Research topics in condensed matter and materials physics include magnetism and magnetic materials, organic semiconductor materials, surface science, paleomagnetism, and a variety of theoretical and computational subfields. Many of these research areas offer opportunities to collaborate across disciplines with faculty and students in Western's Advanced Materials Science and Engineering Center (AMSEC). Research topics in astronomy include observational and theoretical studies of the Milky Way, distant galaxies and galaxy clusters using imaging and spectroscopy at multiple wavelengths. Research topics in physics education research include the identification of specific conceptual and reasoning difficulties and the development and testing of instructional strategies.

### *Teaching*

Physics majors are encouraged to participate as laboratory teaching assistants. Such involvement provides valuable experience and financial support. Students report their teaching experience deepens their understanding of fundamental physics concepts, builds leadership and communication skills, and fosters community. Close collaboration among faculty and students in teaching and learning is one of the strengths of the department.

## Faculty

**BRAD JOHNSON** (1997) Chair and Professor. BS, MS, University of Colorado-Colorado Springs; PhD, University of Colorado-Boulder.

**ANDREW BOUDREAUX** (2008) Associate Professor. BS, University of California-Berkeley; PhD, University of Washington.

**MILTON FROM** (1998) Associate Professor. BSC, University of Manitoba; MSc, PhD, McGill University.

**KRISTEN LARSON** (2002) Associate Professor. BS, University of California-San Diego; MS, PhD, Rensselaer Polytechnic Institute.

**JANELLE LEGER** (2008) Associate Professor. BS, University of California-Davis; PhD, University of California - Santa Cruz.

**ANDREAS RIEMANN** (2006) Associate Professor. BS, MS, University Halle, Germany; PhD, Free University

## PHYSICS AND ASTRONOMY

Berlin, Germany.

**KENNETH RINES** (2008) Assistant Professor. BA, Rice University; AM, PhD, Harvard University.

**SETH RITTENHOUSE** (2012) Assistant Professor. BS, Physics, MS Mathematics, Western Washington University; PhD, University of Colorado

**TAKELE SEDA** (2002) Associate Professor. BS, Asmara University (Eritrea); MS, Addis Ababa University (Ethiopia); PhD, University of the Witwatersand, Johannesburg, South Africa.

### ***Adjunct Faculty***

**REGINA BARBER DEGROAFF**, BS, Physics, Western Washington University; MS, Physics, San Diego State University; PhD, Physics, Washington State University.

**BRANDON PEDEN**, BS, Physics, MS, Mathematics, Western Washington University; PhD, Physics, University of Colorado.

**KATHLEEN SANDELIN**, BS, Western Washington University; MS, College of William and Mary.

## **Declaring a Physics Major**

Students are advised to declare the major as soon as possible, ideally no later than the end of the freshmen year or immediately upon transfer to Western. Contact the department office to declare in person or by mail. Be sure to provide unofficial copies of your transcript(s). We will determine which of the courses you have already taken will be applied toward the major and develop a plan of study for the remaining coursework. If you are not sure which program option is for you, we can help. Declaring the major allows you to receive important information from the department, priority enrollment into required courses, and benefits such as accounts on department computers and access to department study space.

## **Other Departmental Information**

### *Advice to Freshman*

The core curriculum for the BS program is arranged sequentially, with earlier courses required as prerequisites for later courses. Thus, it is important to start the core sequence as early as possible, since any substantial delay will result in the student needing more than four years to complete the degree. All core courses require mathematics, and calculus is particularly important. For this reason, freshmen considering a major in physics should enroll in MATH 124, MATH 134, or MATH 138 during their first quarter at Western concurrently with PHYS 161. Freshmen who have had calculus in high school are advised to take PHYS 161 during their first quarter, along with the appropriate level of calculus course. Freshmen who have had no calculus at all should postpone PHYS 161 until their second quarter at Western, so that they may first complete MATH 124, MATH 134, or MATH 138. The physics course sequence has been arranged so that this delay of one quarter will not cause problems later.

### *Advice to Transfer Students*

The first two years of the physics BS program is based on the following core courses:

- PHYS 161, PHYS 162, PHYS 163; MATH 124 or MATH 134, MATH 125 or MATH 135, or MATH 138, MATH 224
- PHYS 224, PHYS 225, PHYS 226, PHYS 322; PHYS 326, MATH 203, MATH 303 (MATH 204, MATH 304, and MATH 331 may be substituted), CSCI 140

Students planning to transfer to Western from a community college should strive to take as many equivalents of the courses above as possible. The community college sequence equivalent to PHYS 161-162-163 will usually be called introductory physics with calculus and will probably include labs. MATH 124 or 134, MATH 125 or 135, or 138, 224 is the first year of college calculus. MATH 204 is Elementary Linear Algebra, MATH 304 is Linear Algebra and MATH 331 is Ordinary Differential

Equations. Students should be aware that like-named 200-level community college courses may not transfer as equivalent.

#### *Mid-Program Checkpoint*

A student seeking to complete a BS degree in physics within a four-year time span should have completed the following courses by the start of his/her junior year. Major omissions from this list will make it difficult or impossible to complete this degree within two additional years.

- PHYS 161, PHYS 162, PHYS 163, PHYS 224, PHYS 225, PHYS 226, PHYS 322, PHYS 326
- MATH 124 or MATH 134, MATH 125 or MATH 135, or MATH 138, MATH 204, MATH 224, MATH 304 and MATH 331, (MATH 203, MATH 303), may be substituted for MATH 204, MATH 304 and MATH 331
- CSCI 140

A student seeking to complete a BA in Education degree in physics/mathematics within a four-year time span should have completed the following courses by the start of his/her junior year. Major omissions from this list will make it difficult or impossible to complete this degree within two additional years.

- PHYS 161, PHYS 162, PHYS 163, PHYS 224, PHYS 225, PHYS 226, PHYS 322, PHYS 326
- MATH 124 or MATH 134, MATH 125 or MATH 135, or MATH 138, MATH 203, MATH 224, MATH 303 (MATH 204, MATH 304, and MATH 331 may be substituted for MATH 203 and MATH 303)

#### *Information*

Anyone interested in learning more about the study of physics at Western is invited to write, phone, e-mail, fax or visit the Department of Physics and Astronomy, Western Washington University, Bellingham, WA 98225-9164, telephone: 360-650-3818, fax: 360-650-6505. The department office is in Communication Facility 385. Information about Western's physics and astronomy programs is also available at the department website, [www.wvu.edu/depts/physics](http://www.wvu.edu/depts/physics).

## **Bachelor of Arts in Education**

### **Chemistry/Physics - Secondary, BAE (see Chemistry Department)**

Chemistry/Physics - Secondary, BAE (see Chemistry Department)

### **Physics/Mathematics — Secondary, BAE**

Combined major offered by the Department of Physics, College of Sciences and Technology and the Department of Mathematics, College of Sciences and Technology.

#### **104 credits**

#### **Introduction/What is the Study of Physics/Mathematics - Secondary?**

Physics is the fundamental science. It is the study of matter and energy and of the interaction between the two. Astronomy, Biology, Chemistry, Geology and Engineering apply the principles of Physics to specific problems. Almost all areas of modern technology involve applications of Physics.

"Mathematics reveals hidden patterns that help us understand the world around us. Now much more than Arithmetic and Geometry, Mathematics today is a diverse discipline that deals with data, measurements, and observations from science; with inference, deduction, and proof; and with mathematical models of natural phenomena, of human behavior, and of social systems." From: Everybody Counts: A Report to the Nation on the Future of Mathematics Education (c) 1989 National Academy of Sciences.

This major must be accompanied by the professional preparation program in secondary education offered through Woodring College of Education. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

# PHYSICS AND ASTRONOMY

## Why Consider a Physics/Mathematics - Secondary Major?

Teaching mathematics and physics is a challenge, a responsibility, and an opportunity. Learning to teach mathematics and physics occurs through a variety of means: the study of a wide variety of mathematics and physics, pedagogical preparation within a mathematical and science context, formal clinical preparation in education, an extended internship, and continual experiences as a student, learner, and problem solver in mathematics and physics.

Everyone aspiring to be a mathematics and physics teacher is aware of the demand for qualified teachers at the secondary level, but there is an even greater need for quality mathematics and physics teachers—teachers who care about both students and mathematics and physics, teachers who have a broad and deep understanding of mathematics and physics, and teachers who are thoroughly professional. The responsibilities are great, but the rewards are even greater.

As a prospective teacher you need to focus on expanding your personal understanding of mathematics and physics and capitalizing on opportunities to work with pre-college students as a tutor, as a classroom assistant, as a practicum student, and as a novice teacher in your internship.

Are you up to it?

Contact Information		
<b>Advisor</b> Jerry Johnson Bond Hall 400 360-650-3801 Jerry.Johnson@wwu.edu	<b>Math Department</b> Bond Hall 202 360-650-3785 mathdept@wwu.edu	<b>Physics Department</b> Communications Facility 385 360-650-3818
<b>Advisor</b> Mildred Johnson Bond Hall 212 360-650-3459 Millie.Johnson@wwu.edu		
<b>Secondary Education Professional Program Information Program Manager</b> Janna Cecka Miller Hall 401C 360-650-3347 Janna.Cecka@wwu.edu	<b>Secondary Education Program Coordinator</b> Debbie Gramm Miller Hall 401A 360-650-3327 Debbie.Gramm@wwu.edu	

## Sample Careers

Secondary Education Teacher

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process)

Students are advised to declare the major as soon as possible, ideally no later than the end of the freshmen year or immediately upon transfer to Western. Contact the department office to declare in person or by mail. Be sure to provide unofficial copies of your transcript(s). We will determine which of the courses you have already taken will be applied toward the major and develop a plan of study for the remaining coursework. If you are not sure which program option is for you, we can help. Declaring the major allows you to receive important information from the department, priority enrollment into required courses, and benefits such as accounts on department computers and access to department study space.

This major must be accompanied by the professional education program in secondary education. This major meets the requirements for Washington state teaching endorsements in both physics and mathematics. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

**Grade Requirements**

A cumulative GPA of at least 2.50, plus a minimum grade of C (2.0) or better in the individual courses, must be maintained in the courses required by the major. Students must earn a grade of C (2.0) or better in the secondary education professional program and in all courses required for the endorsement.

**Requirements**

- ASTR 315 - The Solar System
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I and
  - MATH 125 - Calculus and Analytic Geometry II
- OR
- MATH 134 - Calculus I Honors and
- MATH 135 - Calculus II Honors
- OR
- MATH 138 - Accelerated Calculus
- Choose either:
  - MATH 204 - Elementary Linear Algebra and
  - MATH 331 - Ordinary Differential Equations
- OR
- MATH 203 - Linear Algebra and Differential Equations I and
- MATH 303 - Linear Algebra and Differential Equations II
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 309 - Introduction to Proof in Discrete Mathematics
- MATH 331 - Ordinary Differential Equations
- MATH 360 - Euclidean and Non-Euclidean Geometry
- MATH 419 - Historical Perspectives of Mathematics
- MATH 483 - Methods of Teaching Secondary Mathematics
- At least two of the following:
  - MATH 307 - Mathematical Computing
  - MATH 341 - Probability and Statistical Inference
  - MATH 410 - Mathematical Modeling
  - PHYS 161 - Physics with Calculus I
  - PHYS 162 - Physics with Calculus II
  - PHYS 163 - Physics with Calculus III
  - PHYS 226 - Physics with Calculus IV
  - PHYS 224 - Modern Physics I
  - PHYS 225 - Modern Physics II
  - PHYS 322 - Fundamentals of Electronics
  - PHYS 326 - Tools and Data Analysis
  - PHYS 363 - Classical Mechanics
  - PHYS 391 - Junior Lab
  - SCED 370 - Science and Society
  - SCED 481 - Fundamentals of Teaching Science
  - SCED 491 - Methods in Secondary Education for Science Teachers
- 6 additional credits of upper-division physics or astronomy courses

# PHYSICS AND ASTRONOMY

## Additional Requirements

### Secondary Education Professional Program Requirements (68 credits)

- I T 444 - Classroom Use of Instructional Technology (Secondary)
- SEC 410 - Dynamics of Teaching
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching Laboratory
- SEC 435 - Middle Level Practicum
- SEC 436 - Secondary School Practicum
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

## Bachelor of Science

### Physics, BS

Department of Physics, College of Sciences and Technology

#### 104-108 credits

#### Introduction/What is the Study of Physics?

Physics is the fundamental science. It is the study of matter and energy and the interaction between the two. Astronomy, Biology, Chemistry, Geology and Engineering apply the principles of physics to specific problems. Almost all areas of modern technology involve applications of physics. An undergraduate major in Physics provides a solid foundation upon which to build later work and study in physics, astronomy and engineering.

#### Why Consider a Physics Major?

A Bachelor's degree in Physics provides an excellent foundation in liberal arts and technology. The Physics BS degree can open a variety of doors for jobs in high tech industries, government labs, and as preparation for graduate school. Recent Physics graduates have found positions in a variety of fields including engineering, software development, optoelectronics, failure analysis, and education, among many others. Many graduates have found the skills acquired in our degree program have prepared them for further academic studies in Physics, Astronomy, Engineering, Patent Law, Medical Physics, Medicine, and Education to name a few.

#### Contact Information

##### Undergraduate Advisor

Brad Johnson  
Communications Facility 385  
360-650-3818  
Brad.Johnson@wwu.edu

##### Administrative Manager

Donna VanderGriend  
Communications Facility 385  
360-650-3818  
Donna.Vandergriend@wwu.edu

#### Sample Careers

Astronomer | Engineer | Research and Development Scientist | Laboratory Technician | Software Developer | Technical Consultant | Physics Teacher | Industrial Hygienist | Geophysicist | Seismologist | Optical Devices Designer | Satellite Data Analyst | Science Writer

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Students are advised to declare the major as soon as possible, ideally no later than the end of the freshmen year or immediately upon transfer to Western. Contact the department office to declare in person or by mail. Be sure to provide unofficial copies of your transcript(s). We will determine which of the courses you have already taken will be applied toward the major and develop a plan of study for the remaining coursework. If you are not sure which program option is for you, we can help. Declaring the major allows you to receive important information from the department, priority enrollment into required courses, and benefits such as accounts on department computers and access to department study space.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- ASTR 315 - The Solar System
- CSCI 140 - Programming Fundamentals in C++
- MATH 224 - Multivariable Calculus and Geometry I
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III
- PHYS 224 - Modern Physics I
- PHYS 225 - Modern Physics II
- PHYS 226 - Physics with Calculus IV
- PHYS 322 - Fundamentals of Electronics
- PHYS 326 - Tools and Data Analysis
- PHYS 335 - Statistical and Thermal Physics
- PHYS 339 - Optics
- PHYS 363 - Classical Mechanics
- PHYS 368 - Electromagnetism I
- PHYS 369 - Electromagnetism II
- PHYS 391 - Junior Lab
- PHYS 419 - Professional Writing for Physicists
- PHYS 455 - Quantum Mechanics I
- PHYS 456 - Quantum Mechanics II
- PHYS 475 - Physics of Solids and Materials I
- PHYS 485 - Mathematical Physics
- PHYS 486 - Computational Physics
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I and
  - MATH 125 - Calculus and Analytic Geometry II
 or
  - MATH 134 - Calculus I Honors and
  - MATH 135 - Calculus II Honors



## PHYSICS AND ASTRONOMY

or

- MATH 138 - Accelerated Calculus
  - ☐ Choose either:
    - MATH 203 - Linear Algebra and Differential Equations I
    - MATH 303 - Linear Algebra and Differential Equations II
  - or
  - MATH 204 - Elementary Linear Algebra
  - MATH 304 - Linear Algebra
  - MATH 331 - Ordinary Differential Equations
  - ☐ One course selected from:
    - PHYS 391 - Junior Lab (as a repeated course)
    - PHYS 444 - Special Topics in Physics
    - PHYS 476 - Physics of Solids and Materials II
    - ASTR 316 - Stars and Galaxies
    - ASTR 320 - Cosmology
    - ASTR 416 - Astrophysics
- or other courses under advisement

## Minor

### Astronomy Minor

Department of Physics, College of Sciences and Technology

#### 24-28 credits

#### Introduction/What is the Study of Astronomy?

#### Why Consider an Astronomy Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Admission to the Minor

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- ☐ Choose one of the following series:
  - PHYS 114 - Principles of Physics I

- PHYS 115 - Principles of Physics II
- PHYS 116 - Principles of Physics III
- or
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III
- PHYS 226 - Physics with Calculus IV
- ASTR 315 - The Solar System
- ASTR 316 - Stars and Galaxies
- ASTR 320 - Cosmology

## Physics Minor

Department of Physics, College of Sciences and Technology

### 41 credits

### Introduction/What is the Study of Physics?

### Why Consider a Physics Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Admission to the Minor

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- MATH 224 - Multivariable Calculus and Geometry I
- PHYS 161 - Physics with Calculus I
- PHYS 162 - Physics with Calculus II
- PHYS 163 - Physics with Calculus III
- PHYS 224 - Modern Physics I
- PHYS 225 - Modern Physics II
- PHYS 226 - Physics with Calculus IV
- Choose either:
  - MATH 124 - Calculus and Analytic Geometry I and
  - MATH 125 - Calculus and Analytic Geometry II
- or

## PHYSICS AND ASTRONOMY

- MATH 134 - Calculus I Honors and
  - MATH 135 - Calculus II Honors
- or
- MATH 138 - Accelerated Calculus

### Astronomy Courses

#### **ASTR 103 - Introduction to Astronomy**

A survey of astronomy including stars, galactic structure and cosmology. Not recommended for science, math or computer science majors.

**Prerequisites & Notes:** MATH 107 or higher.

Credits: 4

GUR Attributes: SCI

#### **ASTR 113 - Sun, Moon, and Planets**

Introduction to the Solar System, with emphasis on the motion of objects in the sky, including seasons, phases of the Moon, and eclipses. Properties of the Sun, planets, and moons with discussion of recent results from space missions. Some class sessions will be held in the planetarium. Intended for future science educators but open to all students.

**Prerequisites & Notes:** MATH 107 or higher.

Credits: 3

GUR Attributes: SCI

#### **ASTR 315 - The Solar System**

Introduction to the modern physical understanding of the Solar System. Topics include gravity, orbits, the formation of stars and planets, planetary atmospheres and surfaces, physical processes in the Solar System.

**Prerequisites & Notes:** One year of college physics.

Credits: 3

#### **ASTR 316 - Stars and Galaxies**

Observational evidence of the nature of stars; star formation and star death; structure and kinematics of the Milky Way and other galaxies.

**Prerequisites & Notes:** One year of college physics.

Credits: 3

#### **ASTR 320 - Cosmology**

Large-scale structure of the universe; black holes and active galaxies; curved spacetime; evolution of the expanding universe; the Big Bang and the early universe.

**Prerequisites & Notes:** ASTR 316.

Credits: 3

#### **ASTR 390 - Astronomy Junior Lab**

Selected experiments in observational astrophysics. Graded work includes lab notebook, oral, and written presentations, and exams.

**Prerequisites & Notes:** PHYS 235; PHYS 322; PHYS 326. ASTR 315 or concurrent.

Credits: 3

#### **ASTR 416 - Astrophysics**

Application of physics to stars, nebulae and galaxies. Radiation; atomic spectra and chemical abundances in stellar atmospheres and gaseous nebulae; nuclear synthesis in stars; stellar evolution.

**Prerequisites & Notes:** ASTR 316; PHYS 335; PHYS 363.

Credits: 3

### Physics Courses

#### **PHYS 101 - Physics Analysis**

In-depth analysis of physical phenomena such as the motion of objects and conditions for equilibrium; development and application of conceptual models that account for observations and have predictive power. Instruction seeks to actively engage students in scientific reasoning. Lab.

**Prerequisites & Notes:** MATH 107 or higher.

Credits: 4  
GUR Attributes: LSCI

**PHYS 102 - Physics and Contemporary Issues**

Exploration of the relationships between basic physics concepts and broader social issues such as the generation of energy or global climate change; using scientific evidence to judge claims and construct arguments.

**Prerequisites & Notes:** Math 107 or higher.  
Credits: 3  
GUR Attributes: SCI

**PHYS 104 - Physics Applications**

A study of physics as a human endeavor to understand everyday phenomena and the development of technology. Exploration of basic concepts from physics relevant to phenomena such as weather, music, or sports; investigation of the effects of technology and the causes of disasters; new advances in applied physics. Lab.

**Prerequisites & Notes:** MATH 107 or higher.  
Must register for a lecture and lab section.  
Credits: 4  
GUR Attributes: LSCI

**PHYS 114 - Principles of Physics I**

Kinematics and dynamics of particles; force, momentum, energy; rotational dynamics and equilibrium; gravity and oscillations. Recommended for students in science and pre-professional programs not requiring physics with calculus.

**Prerequisites & Notes:** MATH 115  
Credits: 5  
GUR Attributes: SCI

**PHYS 115 - Principles of Physics II**

Fluids; kinetic theory; heat and thermodynamics; principles of electricity and magnetism. Lab.

**Prerequisites & Notes:** PHYS 114. Must register for a lecture and lab section.  
Credits: 5  
GUR Attributes: LSCI

**PHYS 116 - Principles of Physics III**

Waves and sound; geometrical and physical optics; relativity and modern physics. Lab.

**Prerequisites & Notes:** PHYS 115  
Credits: 5  
GUR Attributes: LSCI

**PHYS 161 - Physics with Calculus I**

Kinematics and dynamics of particles; work and energy; gravitation; collisions and conservation of momentum. Includes lab.

**Prerequisites & Notes:** MATH 124 or concurrent OR MATH 134 or concurrent OR MATH 138 or concurrent.  
Credits: 5  
GUR Attributes: LSCI

**PHYS 162 - Physics with Calculus II**

Electrostatics; magnetic fields of steady currents; time-varying electric and magnetic fields; DC and AC circuits; electromagnetic waves. Includes labs.

**Prerequisites & Notes:** PHYS 161; MATH 124 or MATH 134 or MATH 138  
Credits: 5  
GUR Attributes: LSCI

**PHYS 163 - Physics with Calculus III**

Rotations and oscillations, waves in elastic media, superposition, interference and standing waves; sound waves and electromagnetic waves; geometric optics including reflection and refraction; interference and diffraction of light. Includes labs.

**Prerequisites & Notes:** PHYS 162; MATH 124 or MATH 134 or MATH 138  
Credits: 5  
GUR Attributes: LSCI

**PHYS 190 - Exploring Physics and Astronomy**

Seminar for students interested in majoring in Physics. Current topics and trends in physics, with emphasis on research opportunities for undergraduates. S/U grading.

**Prerequisites & Notes:** PHYS 161 or concurrent OR PHYS 162 or concurrent.  
Credits: 1  
Grade Mode: S/U

# PHYSICS AND ASTRONOMY

## **PHYS 224 - Modern Physics I**

Special relativity, quantization of charge, matter waves, bound and unbound states in quantum physics.

**Prerequisites & Notes:** PHYS 163; MATH 203 or MATH 204.

Credits: 3

## **PHYS 225 - Modern Physics II**

Schrodinger equation in three dimensions, spin and atomic physics, statistical physics, molecules and solids.

**Prerequisites & Notes:** PHYS 224; MATH 303.

Credits: 3

## **PHYS 226 - Physics with Calculus IV**

Thermodynamics, Physics of continuous media, Introduction to statistical mechanics.

**Prerequisites & Notes:** PHYS 163; MATH 124 or MATH 134 or MATH 138

Credits: 4

## **PHYS 235 - Modern Physics Lab**

Selected experiments in atomic physics and nuclear physics. Lecture and lab.

**Prerequisites & Notes:** PHYS 322; PHYS 326; PHYS 225 or concurrent.

Credits: 3

## **PHYS 291 - Independent Research**

Individual research under faculty supervision. Written report required. Repeatable for credit with no limit. S/U grading.

**Prerequisites & Notes:** Permission of instructor.

Credits: 1-3

Grade Mode: S/U

## **PHYS 322 - Fundamentals of Electronics**

AC/DC circuit theory, transistor and op-amp circuit design, digital basics and introduction to LabView programming. Includes lab.

**Prerequisites & Notes:** PHYS 163; PHYS 326; CSCI 140.

Credits: 4

## **PHYS 326 - Tools and Data Analysis**

Introduction to error analysis, data handling, and numerical solution methods in physics using computer programs such as KaleidaGraph, Mathematica, and LabView. Lecture and computer lab.

**Prerequisites & Notes:** PHYS 163; MATH 203 or MATH 204; MATH 224; CSCI 140

Credits: 3

## **PHYS 335 - Statistical and Thermal Physics**

Foundations of macroscopic thermodynamics, statistical description of physical systems, laws of thermodynamics, statistical ensemble theory and applications.

**Prerequisites & Notes:** PHYS 225; PHYS 226; MATH 224

Credits: 4

## **PHYS 339 - Optics**

Topics in modern physical and geometrical optics including general solutions to the 3-D wave equation, analytical ray tracing, polarized light, interferometric techniques, and introduction to lasers.

**Prerequisites & Notes:** PHYS 163; PHYS 368

Credits: 3

## **PHYS 363 - Classical Mechanics**

Newtonian mechanics; general motion of a particle in three dimensions; Lagrangian mechanics; canonical coordinates; particle systems and rigid bodies; gravitation and Newtonian cosmology; nonlinear mechanics and chaos.

**Prerequisites & Notes:** PHYS 163; PHYS 326; MATH 303, or MATH 304 and MATH 331.

Credits: 4

## **PHYS 368 - Electromagnetism I**

Vector calculus, Green's and Stokes' theorems; static electric and magnetic field laws; boundary-value problems; Lorentz force; polarization and magnetization in materials.

**Prerequisites & Notes:** PHYS 163; MATH 224; MATH 303, or MATH 304 and MATH 331.

Credits: 4

**PHYS 369 - Electromagnetism II**

Electrodynamics; Maxwell's equations; plane electromagnetic waves in free space; dielectrics and conductors; reflection and refraction at a plane boundary; electromagnetic radiation; relativistic dynamics.

**Prerequisites & Notes:** PHYS 368; MATH 303.  
Credits: 3

**PHYS 391 - Junior Lab**

Selected experiments in modern physics, optics, astronomy, condensed matter physics and materials science. Graded work includes lab notebook, oral and written presentations, and exams. Repeatable once.

**Prerequisites & Notes:** PHYS 225; PHYS 322; PHYS 326.  
Credits: 3

**PHYS 392 - Optics Junior Lab**

Selected experiments in condensed matter physics and materials science. Topics in error analysis (covariance, distributions, curve fitting).

**Prerequisites & Notes:** PHYS 235; PHYS 322; PHYS 326. PHYS 339 or concurrent.  
Credits: 3

**PHYS 419 - Professional Writing for Physicists**

Presentation of scientific research in written form; abstracts, project reports, and documentation; elements of successful posters; proposals and professional critique.

**Prerequisites & Notes:** PHYS 391.  
Credits: 3

**PHYS 444 - Special Topics in Physics**

Introduction to a special topic, current research, or application in physics. Repeatable up to two times for credit.

**Prerequisites & Notes:** PHYS 363 and PHYS 368.  
Credits: 3

**PHYS 455 - Quantum Mechanics I**

Review of the Schrodinger equation with applications to simple potentials, introduction to Dirac notation, generalized function spaces, and general uncertainty relations. The Schrodinger equation in three dimensions, including the hydrogen atom, angular momentum, and spin. Introduction to identical particles.

**Prerequisites & Notes:** PHYS 225; PHYS 363; MATH 303.  
Credits: 3

**PHYS 456 - Quantum Mechanics II**

Introduction to perturbation theory (including time independent, degenerate, and time dependent), the variational principle and WKB approximations. Introduction to scattering theory. Special topics such as Bell's theorem, relativistic quantum mechanics.

**Prerequisites & Notes:** PHYS 455  
Credits: 3

**PHYS 475 - Physics of Solids and Materials I**

Structure and properties of materials including crystallography, symmetry, bonding-related properties, electronic structure, phase diagrams, surfaces, semiconductors, metals.

**Prerequisites & Notes:** PHYS 225 or instructor permission.  
Credits: 3

**PHYS 476 - Physics of Solids and Materials II**

Application and investigation of materials including amorphous, liquid crystal, magnetic, porous and novel materials, lasers, photo detectors, optical fibers, microscopy, spectroscopy.

**Prerequisites & Notes:** PHYS 475  
Credits: 3

**PHYS 485 - Mathematical Physics**

Fourier transforms; Laplace transforms; orthogonal functions and boundary value problems; series expansions; rotations and tensors; complex integration.

**Prerequisites & Notes:** PHYS 363 or concurrent; MATH 224; MATH 303, or MATH 304 and MATH 331.

# PHYSICS AND ASTRONOMY

Credits: 3

## **PHYS 486 - Computational Physics**

Introduction to methods of solving physics problems with computers. Topics include molecular dynamics, electronic states, calculation of classical electromagnetic fields and orbits, and Monte Carlo methods applied to statistical mechanics and quantum systems.

**Prerequisites & Notes:** PHYS 326; PHYS 363; CSCI 140.

Credits: 3

## **PHYS 491 - Independent Research**

Individual research under faculty supervision. Written report required. Repeatable for credit. S/U grading.

**Prerequisites & Notes:** Permission of instructor.

Credits: 1-3

Grade Mode: S/U

# Science Education

## Introduction

The Science, Mathematics and Technology Education Program is a visionary and practical program designed to enrich the training and education of K-12 pre-service and in-service teachers and, through them, their students. From a collaboration of the disciplines of education, chemistry, geology, biology, physics/astronomy, mathematics and engineering technology, the Science, Mathematics and Technology Education Program (SMATE) offers an opportunity for teachers and future teachers to gain specific skills and broaden talents within their chosen discipline.

The General Science major is offered at three levels: Elementary for students intending to teach grades K-8, Middle School for students intending to teach science in grades 4-9, and Secondary for students intending to teach science in middle or high school. Students planning to be teachers and major in one of the sciences or mathematics should consult with the appropriate science education advisor in the appropriate science or mathematics department or with the director of science education regarding the General Science major. For further information and advisement, consult with an advisor or the director of Science, Mathematics and Technology Education, Dr. Edward Geary, phone 360-650-3637, Science, Math and Technology Education Building, SL 250D, e-mail Edward.Geary@wwu.edu. or Lori Torres, Program Manager, SL 220, phone 360.660.7605, e-mail Lori.Torres@wwu.edu.

## Faculty

**EDWARD E. GEARY** (2013) SMATE Director and Professor. BS, Stanford University; MS, PhD, Cornell University.

**ALEJANDRO ACEVEDO-GUTIÉRREZ** (2002) Associate Professor. BSc, Universidad Autonoma de Baja California Sur, Mexico; PhD, Texas A&M University.

**EMILY BORDA** (2005) Associate Professor. BS-Chemistry, Gonzaga University; MEd-Educational Leadership and Policy, MS, PhD-Chemistry, University of Washington.

**ANDREW BOUDREAUX** (2008) Associate Professor, BS, University of California Berkeley (1993), PhD, University of Washington.

**DONALD BURGESS** (2004) Associate Professor. MS Education-Biology, State University of New York, Cortland.

**SUSAN M. DEBARI** (1998) Professor. BA, Cornell University; PhD, Stanford University.

**DEBORAH A. DONOVAN** (1998) Professor. BSc, MSc, University of California-Davis; PhD, University of British Columbia.

**SCOTT R. LINNEMAN** (2000) Professor. BA, Carleton College; PhD, University of Wyoming.

**CHRIS OHANA** (1999) Associate Professor. BA, University of California- Berkeley; MA, University of Oregon; PhD, Iowa State University.

## Other Departmental Information

### *Facilities and Resources*

Pivotal to this program is a facility designed to accommodate this academic vision. The 19,000 square foot facility contains our state-of-the-art classrooms and laboratories, one each specifically tailored to elementary and secondary education. They surround a Learning Resource Center with more than 15,000 books on standards, assessment, curriculum and activities. It also contains collections of classic and current materials, laboratory resources, educational technology, and expertise that students, faculty, the local community and teachers from around the state can draw upon either on site or in the schools. In both its approach and facilities, the SMATE Program is a national model for teacher training in undergraduate mathematics, science and technology education. Additionally, the SMATE faculty are engaged in a number of research projects that connect the preservice program to the K-12 schools and offer students the opportunity to gain unique



## SCIENCE EDUCATION

experiences. Numerous scholarships and paid research experiences are available each year for future teachers of science.

To find out more about the Irwin L. Slesnick STEM Education Resource Center and SMATE facilities, contact Jamie Harrington, assistant director of the SMATE program, at 360-650-3647, by e-mail at [Jamie.Harrington@wwu.edu](mailto:Jamie.Harrington@wwu.edu), visit the website, <http://www.smate.wwu.edu/smate/>, or stop by the Science, Math and Technology Education Building, Science Lecture 220.

### Graduate Study

For a concentration leading to a Master of Education degree in natural science/science education see the *Graduate School* section of this catalog.

## Bachelor of Arts in Education

### General Science — Elementary, BAE

Department of Science Education, College of Sciences and Technology

#### 51-52 credits

#### Introduction/What is the Study of General Science - Elementary?

The Science, Mathematics and Technology Education Program (SMATE) is a visionary and practical program designed to enrich the training and education of K-12 pre-service teachers and, through them, their students. From a collaboration of the disciplines, Chemistry, Geology, Biology, Physics/ Astronomy, Mathematics and Engineering Technology, the Science, Mathematics and Technology Education Program offers an opportunity for teachers and future teachers to gain specific skills and broaden talents within their chosen discipline. This program is designed to prepare future teachers at the elementary and middle school level with an emphasis in Science. This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in Elementary Education offered through Woodring College of Education.

#### Why Consider a General Science - Elementary Major?

If you want a broad base of knowledge in the field of science to prepare you for teaching at the elementary level, this major will provide it. You will take a range of introductory courses from different areas of science, including Biology, Chemistry, Physics and Geology. Other Science majors focus on a single subject such as Biology or Chemistry (see WWU Catalog).

Completion of this program results in a highly qualified status for elementary or middle school science under the federal NCLB guidelines.

#### Contact Information

##### Director and Advisor

Edward Geary  
Science, Mathematics  
& Technology Education 250D  
360-650-3637  
[Edward.Geary@wwu.edu](mailto:Edward.Geary@wwu.edu)

##### Teacher Education Admissions

Miller Hall 150  
360-650-3313  
<http://www.wce.wwu.edu/admiss>

##### General Science Program Manager

Lori Torres  
Science, Mathematics &  
Technology Education 220  
360-650-7605  
[Lori.Torres@wwu.edu](mailto:Lori.Torres@wwu.edu)

##### Elementary Education

##### Professional Program Information

Miller Hall 300  
360-650-3336  
<http://www.wce.wwu.edu/Depts/ELED>

##### Elementary

##### Education

##### Professional

##### Program Advisor and Program Manager

Ellen Kreider  
 Miller Hall 301D  
 360-650-7948  
 Ellen.Kreider@wwu.edu

### Sample Careers

Elementary Teacher

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in elementary education. It does not result in a science endorsement. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

### Grade Requirements

A grade of C (2.0) or better is required for courses in the elementary education professional program and all courses required for the endorsement.

### Requirements

- One course from:
  - ASTR 103 - Introduction to Astronomy
  - ASTR 113 - Sun, Moon, and Planets
  - BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
  - CHEM 121 - General Chemistry I
  - GEOL 211A - Physical Geology Review
  - GEOL 212 - Historical Geology
  - GEOL 311 - Earth Materials
  - MATH 114 - Precalculus I
  - SCED 201 - Matter and Energy in Physical Systems
  - SCED 202 - Matter and Energy in Earth Systems
  - SCED 203 - Matter and Energy in Life Systems
  - SCED 204 - Matter and Energy in Chemical Systems
  - SCED 492 - Field Experience in Middle School Science
- One course from:
  - PHYS 101 - Physics Analysis
  - PHYS 104 - Physics Applications

### Additional Requirements

### Elementary Education Professional Program Requirements (103-104 credits)

Department of Elementary Education, Woodring College of Education

### Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

# SCIENCE EDUCATION

## Admission and Declaration Process

### Admission Requirements

### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

#### Professional Studies Core (25 credits)

- ELED 301 - Educational Psychology I: Development and Individual Differences
- ELED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Basic Instructional Technology Skills
- I T 442 - Classroom Use of Instructional Technology (Elementary)
- SPED 364 - Teaching Each Student

#### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-79 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
  - ELED 425 - Social Studies for the Elementary School
  - ELED 470 - Developing Teaching
  - ELED 471 - Documenting Teaching
  - ELED 480 - Literacy: Beginning Communicators
  - ELED 481 - Literacy: Fluent Communicators
  - ELED 491 - September Experience
  - ELED 492 - Practicum: Experience in Literacy Methods
  - ELED 494 - Internship - Elementary
  - HLED 455 - Health Education Grades K-8
  - MATH 381 - Teaching K-8 Mathematics I
  - MATH 382 - Teaching K-8 Mathematics II
  - MATH 383 - Teaching K-8 Mathematics III
  - MATH 491 - Internship Seminar - Teaching K-8 Mathematics
  - PE 345 - Physical Education for Elementary School
  - SCED 480 - Science Methods and Curriculum for the Elementary School
  - SCED 490 - Laboratory/Field Experience in Elementary Science

## General Science — Middle Level, BAE

Department of Science Education, College of Sciences and Technology

### 87-88 credits

#### Introduction/What is the Study of General Science - Middle Level?

The Science, Mathematics and Technology Education Program is a visionary and practical program designed to enrich the training and education of K-12 pre-service teachers and, through them, their students. From a collaboration of the disciplines of Chemistry, Geology, Biology, Physics/ Astronomy, Mathematics and Engineering Technology, the Science, Mathematics and Technology Education Program (SMATE) offers an opportunity for teachers and future teachers to gain specific skills and broaden talents within their chosen discipline.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and leads to a middle level science endorsement. It must be accompanied by the professional preparation program in elementary education. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements.

#### Why Consider a General Science - Middle Level Major?

If you want a broad base of knowledge in the field of science to prepare you for teaching any science subject at the secondary level, this major will provide it. You will take a range of introductory courses from different areas of science, including Biology, Chemistry, Physics and Geology.

#### Contact Information

##### General Science Education Advisor

Edward Geary  
Science, Mathematics  
& Technology Sciences 250D  
360-650-3637  
Edward.Geary@wwu.edu

##### Teacher Education Admissions

Miller Hall 150  
360-650-3313  
<http://www.wce.wwu.edu/admiss>

##### General Science Program Manager

Lori Torres  
Science, Mathematics  
& Technology Sciences 220  
360-650-7605  
Lori.Torres@wwu.edu

##### Secondary Education Program Coordinator

Debbie Gramm  
Miller Hall 401A  
360-650-3327  
Debbie.Gramm@wwu.edu

##### Secondary Education Professional Program Information Program Manager

Janna Cecka  
Miller Hall 401C  
360-650-3347  
Janna.Cecka@wwu.edu

#### Sample Careers

Secondary Education Teacher

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

This major must be accompanied by the professional preparation program in secondary education. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

# SCIENCE EDUCATION

## Grade Requirements

A grade of C (2.0) or better is required for courses in the elementary education professional program and all courses required for the endorsement.

### Requirements

- One course from:
  - ASTR 103 - Introduction to Astronomy
  - ASTR 113 - Sun, Moon, and Planets
  - BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
  - BIOL 205 - Introduction to Cellular and Molecular Biology
  - BIOL 206 - Introduction to Organismal Biology
  - CHEM 121 - General Chemistry I
  - CHEM 122 - General Chemistry II
  - CHEM 123 - General Chemistry III
  - GEOL 211 - Physical Geology
  - GEOL 212 - Historical Geology
  - GEOL 252 - The Earth and Its Weather
  - MATH 115 - Precalculus II
  - PHYS 101 - Physics Analysis
  - PHYS 102 - Physics and Contemporary Issues
  - PHYS 104 - Physics Applications
  - SCED 201 - Matter and Energy in Physical Systems
  - SCED 202 - Matter and Energy in Earth Systems
  - SCED 203 - Matter and Energy in Life Systems
  - SCED 204 - Matter and Energy in Chemical Systems
  - SCED 370 - Science and Society
  - SEC 450 - Introduction to Middle Schools
- Plus 1 course at the 300-level for 4 credits

### Additional Requirements

## Elementary Education Professional Program Requirements (103-104 credits)

Department of Elementary Education, Woodring College of Education

### Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

### Admission and Declaration Process

Admission Requirements

### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

## Professional Studies Core (25 credits)

- ELED 301 - Educational Psychology I: Development and Individual Differences
- ELED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Basic Instructional Technology Skills
- I T 442 - Classroom Use of Instructional Technology (Elementary)
- SPED 364 - Teaching Each Student

## Elementary Program — Methods, Curriculum Content, and Field Experiences (78-79 credits)

 One course from:

- ART 398 - Integrated Arts for Elementary Educators
- DNC 398 - Integrated Arts for Elementary Educators
- MUS 398 - Integrated Arts for Elementary Educators
- THTR 398 - Integrated Arts for Elementary Educators

 One course from:

- ART 380 - Art Educating the Child
- DNC 433 - Creative Movement for Educators With Lab
- MUS 361 - Music for Elementary Teachers
- THTR 350 - Theatre for Youth
- THTR 351 - Creative Pedagogy
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

**General Science — Secondary, BAE**

Department of Science Education, College of Sciences and Technology

**97-107 credits****Introduction/What is the Study of General Science - Secondary?**

The Science, Mathematics and Technology Education Program is a visionary and practical program designed to enrich the training and education of K-12 pre-service teachers and, through them, their students. From a collaboration of the disciplines of Chemistry, Geology, Biology, Physics/ Astronomy, Mathematics and Engineering Technology, the Science, Mathematics and Technology Education Program (SMATE) offers an

## SCIENCE EDUCATION

opportunity for teachers and future teachers to gain specific skills and broaden talents within their chosen discipline.

This program is designed to prepare future teachers at the middle school and secondary level with an emphasis in Science. This major must be accompanied by the professional preparation program in secondary education offered through Woodring College of Education.

### Why Consider a General Science - Secondary Major?

If you want a broad base of knowledge in the field of science to prepare you for teaching any science subject at the secondary level, this major will provide it. You will take a range of introductory courses from different areas of science, including Biology, Chemistry, Physics and Geology, along with an in-depth on a single subject such as Biology or Chemistry.

#### Contact Information

##### General Science Education Advisor    General Science Program Manager

Edward Geary

Science, Mathematics

& Technology Education 250D

360-650-3637

Edward.Geary@wwu.edu

Lori Torres

Science, Mathematics

& Technology Education 220

360-650-7605

Lori.Torres@wwu.edu

##### Teacher Education Admissions

Miller Hall 150

360-650-3313

<http://www.wce.wwu.edu/admiss>

##### Secondary Education Program Coordinator

Debbie Gramm

Miller Hall 401A

360-650-3327

Debbie.Gramm@wwu.edu

##### Secondary Education Program Manager

Janna Cecka

Miller Hall 401C

360-650-3347

Janna.Cecka@wwu.edu

#### Sample Careers

Secondary Education Teacher

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admissions and Declaration Process):

This major must be accompanied by the professional preparation program in secondary education. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better. See the Secondary Education section of this catalog for program admission, completion, and teacher certification requirements.

### Grade Requirements

A grade of C (2.0) or better is required for courses in the secondary education professional program and all courses required for the endorsement.

#### Requirements

- MATH 240 - Introduction to Statistics
- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- CHEM 251 - Elementary Organic Chemistry
- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology

- BIOL 206 - Introduction to Organismal Biology
- GEOL 211 - Physical Geology
- GEOL 212 - Historical Geology
- SCED 370 - Science and Society or equivalent
- SCED 481 - Fundamentals of Teaching Science
- SCED 491 - Methods in Secondary Education for Science Teachers
- Choose one of the following series:
  - PHYS 114 - Principles of Physics I
  - PHYS 115 - Principles of Physics II
  - PHYS 116 - Principles of Physics III
  - or
  - PHYS 161 - Physics with Calculus I
  - PHYS 162 - Physics with Calculus II
  - PHYS 163 - Physics with Calculus III
- One course from:
  - ASTR 103 - Introduction to Astronomy
  - ASTR 113 - Sun, Moon, and Planets
- Electives in a single scientific discipline, under advisement to meet state endorsement standards for that discipline: 22-32 additional credits from single science discipline.

#### Additional Requirements

#### Secondary Education Professional Program Requirements (68 credits)

- I T 444 - Classroom Use of Instructional Technology (Secondary)
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching Laboratory
- SEC 435 - Middle Level Practicum
- SEC 436 - Secondary School Practicum
- SEC 495 - Internship - Secondary (24 credits)
- SPED 363 - Secondary Students With Special Needs

## Master of Education

### Natural Science/Science Education, Non-Thesis, MEd (In Moratorium)

#### *College of Sciences and Technology*

This program is not currently accepting new students for the 2011-2012 Academic Year. For further information, please contact Science, Mathematics and Technology Education Department, Western Washington University, 516 High Street, SL 220, Bellingham WA 98225-9155, 360-650-7605.



# SCIENCE EDUCATION

## Graduate Faculty

**Acevedo-Gutierrez, Alejandro**, PhD, biology.

**DeBari, Susan**, PhD, geology.

**Donovan, Deborah**, PhD, biology.

**Geary, Edward**, PhD, geology.

**Linneman, Scott**, PhD, geology.

**Ohana, Chris**, PhD, elementary education.

Program Advisor: Dr. Edward Geary

## Goals

This program is focused on helping practicing teachers of science at all levels P-12 advance their careers by:

- Improving their instruction through advanced study, research and field work;
- Gaining familiarity with current research on student learning and new developments in curriculum assessment; and developing their leadership skills.

## Prerequisites

Students applying for admission are normally expected to have a teaching certificate and to have completed at least one year of teaching in the P-12 system prior to entering the program. Elementary endorsed teachers are expected to have completed at least one course in each of the science areas (biology, chemistry, earth science, and physics). Secondary teachers are expected to have an undergraduate major or minor and a subject endorsement in their area of specialization. (General science teachers should have an endorsement in one or more of the natural sciences. A major in a science field is highly desirable.)

## Application Information

In addition to the Graduate School-required materials for admission, each student is required to take the Graduate Record Exam (GRE), and submit a résumé and a statement of personal career goals and reasons for seeking admissions to the program. An on-campus interview may be requested by the program faculty.

## Program Requirements (48 credits)

The Non-Thesis option involves an action research project culminating in an oral presentation and written summary.

### Comprehensive assessment

Student achievement in the program will be assessed by faculty through the action research proposal, summary document and presentation.

### Core requirements (22 credits)

- EDUC 501 - Introduction to Educational Research
- EDUC 506
- I T 503 - Designing Instruction and Selecting Technologies for Learning
- SCED 501 - Advanced Studies in Science Education
- SCED 513 - Science Curriculum Grades K-12
- SCED 515 - Assessment for Science Understanding

### Focus (electives) under advisement (20 credits)

Emphasis in specific disciplines, pedagogy, assessment or science education research. At least 11 credits must be taken at the 500 level.

Non-Thesis Research Project (6 credits)

- SCED 598 - Research Project

## **Natural Science/Science Education, Thesis, MEd (In Moratorium)**

*College of Sciences and Technology*

This program is not currently accepting new students for the 2011-2012 Academic Year. For further information, please contact Science, Mathematics and Technology Education Department, Western Washington University, 516 High Street, SL 220, Bellingham WA 98225-9155, 360-650-7605.

### **Graduate Faculty**

**Acevedo-Gutierrez, Alejandro**, PhD, biology.

**DeBari, Susan**, PhD, geology.

**Donovan, Deborah**, PhD, biology.

**Geary, Edward**, PhD, geology.

**Linneman, Scott**, PhD, geology.

**Miles, John**, PhD, Huxley College of the Environment.

**Myers, O. Eugene**, PhD, Huxley College of the Environment.

**Ohana, Chris**, PhD, elementary education.

**Stewart, James E.**, PhD, physics.

Program Advisor: Dr. Edward Geary

### **Goals**

This program is focused on helping practicing teachers of science at all levels P-12 advance their careers by:

- Improving their instruction through advanced study, research and field work;
- Gaining familiarity with current research on student learning and new developments in curriculum assessment; and developing their leadership skills.

### **Prerequisites**

Students applying for admission are normally expected to have a teaching certificate and to have completed at least one year of teaching in the P-12 system prior to entering the program. Elementary endorsed teachers are expected to have completed at least one course in each of the science areas (biology, chemistry, earth science, and physics). Secondary teachers are expected to have an undergraduate major or minor and a subject endorsement in their area of specialization. (General science teachers should have an endorsement in one or more of the natural sciences. A major in a science field is highly desirable.)

### **Application Information**

In addition to the Graduate School-required materials for admission, each student is required to take the Graduate Record Exam (GRE), and submit a résumé and a statement of personal career goals and reasons for seeking admissions to the program. An on-campus interview may be requested by the program faculty.

### **Program Requirements (48 credits)**

This option requires students to submit a proposal for a Thesis (690a) or a Field Project (690b) for approval by the student's committee prior to registering for 690a or b. A thesis involves original research. A field project is a formal study carried out in a school setting. Both require the preparation of a formal document.

Program Requirements

Comprehensive assessment

## SCIENCE EDUCATION

Student achievement in the program will be assessed by faculty through either the thesis (field project) proposal or the thesis (field project) and the oral defense (option I); or the action research proposal, summary document and presentation (option II)

Core requirements [22 credits]

- EDUC 501 - Introduction to Educational Research
- EDUC 506
- I T 503 - Designing Instruction and Selecting Technologies for Learning
- SCED 501 - Advanced Studies in Science Education
- SCED 513 - Science Curriculum Grades K-12
- SCED 515 - Assessment for Science Understanding

Focus (electives) under advisement [20 credits]

Emphasis in specific disciplines, pedagogy, assessment or science education research. At least 11 credits must be taken at the 500 level.

Thesis [6-12 credits]

- Thesis or Field Project
- SCED 690A - Research
- SCED 690B - Field Project

## Science Education Courses

### **SCED 201 - Matter and Energy in Physical Systems**

This course is the first in a 4-quarter sequence designed for prospective elementary teachers but open to all students. The course uses a student-oriented pedagogy with an integrated content focus to help students develop important ideas in physical science.

**Prerequisites & Notes:** MATH 112 or higher  
Credits: 4  
GUR Attributes: LSCI

### **SCED 202 - Matter and Energy in Earth Systems**

This course is the second in a 4-quarter sequence designed for prospective elementary teachers but open to all students. The course uses a student-oriented pedagogy with an integrated content focus to help students develop important ideas in earth science.

**Prerequisites & Notes:** MATH 112, SCED 201 or instructor permission  
Credits: 4  
GUR Attributes: LSCI

### **SCED 203 - Matter and Energy in Life Systems**

This course is the third in a 4-quarter sequence designed for prospective elementary teachers but open to all students. The course uses a student-oriented pedagogy with an integrated content focus to help students develop important ideas in life science.

**Prerequisites & Notes:** MATH 112 or higher, SCED 202 or instructor permission  
Credits: 4  
GUR Attributes: LSCI

### **SCED 204 - Matter and Energy in Chemical Systems**

This course is the fourth in a 4-quarter sequence designed for prospective elementary teachers but open to all students. The course uses a student-oriented pedagogy with an integrated content focus to help students develop important ideas in chemical science.

**Prerequisites & Notes:** SCED 201 or permission of instructor.

Credits: 4  
GUR Attributes: LSCI

### **SCED 370 - Science and Society**

An in-depth exploration of selected contemporary issues such as global climate change, energy crisis, genetically modified foods, and large-scale extinction of species. The course also explores what constitutes science and pseudo science, looking specifically at 'creation science.'

**Prerequisites & Notes:** Completion of science GURs and completion 90 credits or permission of instructor.  
Credits: 3

### **SCED 401 - Reading in Science Education**

In-depth study of science education literature with a view to writing one short and one extensive report, plus making two short presentations to class peers based on these reports.

**Prerequisites & Notes:** SCED 491 or concurrent  
Credits: 1

### **SCED 417 - Special Topics in Science Education**

Topics vary.

**Prerequisites & Notes:** instr perm  
Credits: 1  
Grade Mode: S/U

### **SCED 445W - Outstanding Sci Ed Part 3**

Topics vary.

Credits: 1  
Grade Mode: S/U

### **SCED 480 - Science Methods and Curriculum for the Elementary School**

Classroom/laboratory study of theory, curriculum, science content and processes and effective teaching methods in the context of national and Washington state standards in science and with activities appropriate for the elementary classroom.

**Prerequisites & Notes:** Completion of Natural Science GURs, including SCED 201 or permission of instructor. SCED 202 and SCED 203 are highly

desired GURs. ELED 370 or ELED 372 or SPED 420.  
Credits: 5

### **SCED 481 - Fundamentals of Teaching Science**

Study of key topics related to teaching science including nature of science, science standards, constructivism, preconceptions, and assessment.

**Prerequisites & Notes:** CHEM 123 or CHEM 225 or GEOL 212 or BIOL 206 or PHYS 163.  
Credits: 2

### **SCED 490 - Laboratory/Field Experience in Elementary Science**

A field-based experience in which WWU students teach science within their internship year. Includes bi-weekly seminar.

**Prerequisites & Notes:** SCED 480  
Credits: 3

### **SCED 491 - Methods in Secondary Education for Science Teachers**

Study of literature, curriculum and teaching strategies in life, earth and physical sciences for grades 4-12, plus peer teaching and school observations.

**Prerequisites & Notes:** Admission to the secondary teaching program and a major or concentration in natural sciences; SEC 431 or SEC 532; SCED 481.  
Credits: 5

### **SCED 492 - Field Experience in Middle School Science**

A field-based experience in which WWU students teach science with experience mentor teachers in local middle schools. Includes weekly seminar.

**Prerequisites & Notes:** SCED 480 and SCED 490 for General Science majors; or permission of instructor for Secondary Science majors.  
Credits: 3

### **SCED 501 - Advanced Studies in Science Education**

A critical study of research and developments related to science education.

**Prerequisites & Notes:** teaching experience

## SCIENCE EDUCATION

Credits: 4

### **SCED 511 - Internship in Science Education**

Assisting with the teaching of an on-campus science methods course for pre-service elementary school teachers. S/U grading.

**Prerequisites & Notes:** instructor permission

Credits: 3

Grade Mode: S/U

### **SCED 512 - In-Service Workshops in Science Education**

Planning and implementing a series of not less than three in-service workshops in elementary school science. Repeatable for elective credit. S/U grading.

Credits: 3

Grade Mode: S/U

### **SCED 513 - Science Curriculum Grades K-12**

Examination of science curricula for grades K-12 with major emphasis on the elementary grades as a basis for selection of a science curriculum and teacher's guide for use in local school systems.

**Prerequisites & Notes:** teaching experience or instructor permission

Credits: 4

### **SCED 514 - Seminar in Elementary Science Education**

Repeatable to a maximum of 3 cr.

**Prerequisites & Notes:** instructor permission

Credits: 1-3

### **SCED 515 - Assessment for Science Understanding**

A seminar addressing the development of a variety of formative and summative assessment techniques and exploring psychometric properties of science items and tests for practicing science teachers.

**Prerequisites & Notes:** SCED 501, EDU 501.

Credits: 4

### **SCED 517L - Implementing and Supporting Science Professional Learning Communities**

This-year long seminar course will provide teachers and principals opportunities for ongoing learning and reflection on the challenges they face in supporting and sustaining effective professional learning communities.

Credits: 3

Grade Mode: S/U

### **SCED 580 - Special Problems in Science Teaching in the Elementary School**

Problems related to science instruction and curriculum. Repeatable to a maximum of 10 cr.

**Prerequisites & Notes:** teaching experience or instructor permission

Credits: 2-5

### **SCED 582 - Special Topics in the Physical Sciences for Elementary School Teachers**

In-depth study of topics in the physical sciences most appropriate for instruction in the elementary school. Repeatable with instructor and/or graduate advisor permission to a maximum of 8 cr.

**Prerequisites & Notes:** SCED 390, SCED 391 or equivalent

Credits: 4

### **SCED 583 - Special Topics in the Biological Sciences for Elementary School Teachers**

In-depth study of topics in the biological sciences most appropriate for instruction in elementary school. Repeatable with instructor and/or graduate advisor permission to a maximum of 8 cr.

**Prerequisites & Notes:** SCED 390, SCED 391 or equivalent

Credits: 4

### **SCED 584 - Special Topics in the Earth Sciences for Elementary School Teachers**

In-depth study of topics in earth sciences most appropriate for instruction in the elementary school. Repeatable with instructor and/or graduate advisor permission to a maximum of 8 cr.

**Prerequisites & Notes:** SCED 390, SCED 391 or equivalent

Credits: 4

**SCED 584A - Earth Science for Elementary Teachers**

In-depth study of topics in earth sciences most appropriate for instruction in the elementary school. Repeatable with instructor and/or graduate advisor permission to a maximum of 8 cr.

Credits: 4

**SCED 590 - Special Problems in Science Teaching in the Junior and Senior High School**

Problems related to science instruction and curriculum. Repeatable with no maximum.

**Prerequisites & Notes:** teaching experience or instructor permission

Credits: 2-5

**SCED 590S - Special Problems in Science Teaching in the Junior and Senior High School**

Problems related to science instruction and curriculum. Repeatable with no maximum.

**Prerequisites & Notes:** teaching experience or instructor permission

Credits: 2

**SCED 592 - Special Topics in the Physical Sciences**

Content topics in chemistry and physics of special interest to secondary teachers. Repeatable with instructor and/or graduate advisor permission to a maximum of 8 cr.

**Prerequisites & Notes:** secondary method course; admission to natural science MEd program; completion of undergraduate courses required for admission

Credits: 4

**SCED 593 - Special Topics in the Biological Sciences**

Content topics in biology of special interest to the secondary teacher. Repeatable with instructor and/or graduate advisor permission to a maximum of 8 cr.

**Prerequisites & Notes:** secondary method course; admission to natural science Med program; completion of undergraduate courses required for admission

Credits: 4

**SCED 594 - Special Topics in the Earth Sciences**

Content topics in geology and related fields of special interest to secondary teachers. Repeatable with instructor and/or graduate advisor permission to a maximum of 8 cr.

**Prerequisites & Notes:** secondary method course; admission to natural science Med program; completion of undergraduate courses required for admission

Credits: 4

**SCED 598 - Research Project**

Research in fields of biology, chemistry, earth science, general science, physical science, physics or education for non-thesis option.

**Prerequisites & Notes:** Admission to MEd natural sciences program and completion of 15 credits of 500-level courses including EDU 501, EDU 506 and SCED 501.

Credits: 6

**SCED 690A - Research**

Restricted to thesis-related research. Repeatable to a maximum of 12 cr.

**Prerequisites & Notes:** admission to program

Credits: 1-12

**SCED 690B - Field Project**

Field project under the direction of a faculty committee. A portion of the field project normally requires work off campus. Repeatable to a maximum of 12 cr. S/U grading.

**Prerequisites & Notes:** graduate committee approval

Credits: 1-12

Grade Mode: S/U

# Fairhaven College of Interdisciplinary Studies

## Introduction

*Dr. John (Jack) A. Herring, Dean*

### **A College Within the University**

Founded in 1967, Fairhaven College of Interdisciplinary Studies is an undergraduate division of Western Washington University. Its purpose is to offer students the opportunity to take an uncommon degree of responsibility for the structure and content of their own education. Fairhaven is a small learning community where students design their own degree programs by drawing on the resources of a larger University. The college offers training in writing and research, critical thought and creative expression, independent judgment and scholarship, self-evaluation and narrative assessment.

As a learning community, Fairhaven is defined by five attributes: (1) interdisciplinary study, (2) student designed studies and evaluations of learning, (3) examination of issues arising from a diverse society, (4) development of leadership and a sense of social responsibility, and (5) curricular, instructional and evaluative innovations.

At Fairhaven, students are challenged to bring what they learn to bear on human concerns and crucial real-world problems, to experiment, to discover and to act. This style of education supports the development of certain values, virtues and skills: self-discipline, resourcefulness, initiative, self-development, adaptability, reasonable risk-taking, leadership, sensitivity to injustice, and respect for persons. Fairhaven courses prepare students to listen carefully and engage respectfully in discussion, to value and respect different world views and to appreciate multiple voices reflecting the diversity of experiences in our society.

Fairhaven College is committed to interdisciplinary study and serving a diverse student body in terms of age, ethnic background, academic interest, and life experience. The College is committed to a gender-conscious and multicultural approach to topics, resources and classroom practices. Courses and other learning experiences provide an opportunity to examine the impacts and contemporary and historical roots of race, class and gender relations.

Students are encouraged to find their connection with the world, to understand relationships of thought and action, theory and experience, to cultivate opportunities to apply what they learn and to develop a strong sense of themselves as individuals in a community, including the benefits and responsibilities that come from membership in it. Courses and experiences encourage students to practice and assume leadership roles and to challenge leaders responsibly and intelligently.

Fairhaven College's role in the University is not only to provide a learning environment for students interested in self-designed study and interdisciplinary learning, but also to help the University ask questions about teaching and learning. Members of the Fairhaven community seek to learn from colleagues in other colleges both within and outside of Western.

### **A Structure for Learning**

The structure of learning at Fairhaven College consists of close working relationships between teachers and students; we are known for our practice of student-centered learning. Classes are small and the emphasis is on open discussion and the exchange of ideas. Our classes are interactive; we believe everyone is an essential participant in the creation of knowledge and value – the discovery and decision process.

In any given quarter, students may select classes offered across the University and/or design independent study projects in consultation with their faculty advisor. Students are encouraged to formulate and carry out independent research projects. Faculty members sponsor and monitor these projects and help students develop the resources necessary to complete them. Field work, practica, internships, and study abroad can also form an important part of a Fairhaven education. Students are encouraged to work outside their comfort

zone and to find ways to connect their learning with challenges and opportunities in the real world, ways to understand relationships of thought and action, theory and expertise, ways to cultivate opportunities for applying what they learn through campus and community volunteer activities, and through internships. Collaborative learning is often used together with independent research. Narrative assessments, including a student self-evaluation and written responses from faculty replace letter grades, for charting a student's growth and learning experience.

## Academic Programs

### *Degree Requirements*

Requirements for bachelor's degrees awarded by Fairhaven College are as follows:

- The Fairhaven Core Program
- A Fairhaven Interdisciplinary Concentration (the individually designed major), the Upside Down Program or other WWU departmental major
- Minimum of 180 credits, including 60 credits at the upper-division level and 45 credits in residence
- Completion of at least 25 credits at Fairhaven and 50 credits outside of Fairhaven
- Completion of WWU upper-division writing proficiency requirements
- Scholarship and credit standards as prescribed by Fairhaven College

**NOTE:** Requirements common to all undergraduate divisions of WWU are listed elsewhere in this catalog. Students completing the Fairhaven Interdisciplinary Concentration earn the Bachelor of Arts or Bachelor of Arts in Education. Fairhaven College, in conjunction with majors in other Western Washington University departments, offers the following undergraduate degrees: Bachelor of Arts; Bachelor of Arts in Education; Bachelor of Fine Arts; Bachelor of Music; Bachelor of Science. Fairhaven students may not complete the General Studies major.

### *Special Opportunities*

**Independent field studies** abroad or community internships might consume a full quarter's registration. The Adventure Learning Program (ALG) provides opportunities for selected Fairhaven students to spend 10 months immersed in a cultural environment different than their own while engaging in a scholarly project of their own design. In recent years, ALG grant recipients have lived and conducted research in Madagascar, Ethiopia, Kenya, Uganda, South Africa, India, Korea, Thailand, Brazil, and Lebanon.

**Professional Education.** For students wishing to acquire teaching credentials, Western's Woodring College of Education offers a choice of majors — including certain Fairhaven Concentrations — appropriate to public school teaching. Faculty advise students in the construction of their programs and work closely with the College of Education in helping students to complete requirements.

**CIEL Student Exchanges.** Fairhaven College is a member of The Consortium for Innovative Environments in Learning (CIEL), a growing network of distinguished, progressive higher education institutions. Through this network, students at Fairhaven College have the opportunity to spend a quarter or semester on one of the Consortium campuses. Visit [www.Cielearn.org](http://www.Cielearn.org).

Information on these and other special opportunities can be accessed on the Fairhaven College Website or is available at the main Fairhaven office.

## College Admission and Advisement

Fairhaven College of Interdisciplinary Studies has selective admission and enrolls first-year students, transfer students, and students from other WWU programs fall, winter, spring and summer quarters. New applicants to Fairhaven and to the University complete the WWU Undergraduate Application (available online or in print form). Indicate interest in Fairhaven College in your application. Send the standard application, transcripts, and required test scores to: Office of Admissions, Western Washington University, Bellingham, WA 98225-9009.



## FAIRHAVEN COLLEGE OF INTERDISCIPLINARY STUDIES

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Students currently enrolled in other University programs may apply to transfer to Fairhaven's program by the quarterly application deadlines. Current WWU students applying to Fairhaven do not need to submit transcript test scores or the WWU Undergraduate Application.

Visitors are welcome and with advance notice, appointments can be arranged with Fairhaven advising and admissions staff, students or other WWU staff.

### *Advising*

Students benefit from high quality advising; extensive and intensive advising is a hallmark of the Fairhaven College learning experience for all its students. All full-time faculty members are academic advisors supported by professional staff, and student peer mentoring. Great thought has been given to the design of advising at Fairhaven – multiple advisors and kinds of advising at multiple points along the path from admission to graduation. We provide an organized sequence of required advising engagements with every student. Advising is continuous and embedded in the curriculum.

The role of the faculty advisor is to mentor, advise, question, recommend resources, and ultimately, oversee and approve the student's satisfaction of degree requirements for graduation. The faculty advisor is a useful resource for facilitating connections for students with other departments and classes on campus; the advisor can also be an influential and important advocate for students seeking internships, study abroad recommendations, exceptions to policies, and graduate school information and references. Faculty advisors review each student's writing portfolio, facilitate student transition conferences, and are essential mentors in supporting the development of the student interdisciplinary concentrations.

A professional Advising Coordinator oversees the complex system of advising at Fairhaven. This person advises new students regarding credit evaluation, degree planning, graduation processes, narrative assessment, and programs and services outside the college. The Advising Coordinator regularly reviews the academic progress of each Fairhaven student and works with faculty advisors, support personnel, and students to promote retention and satisfactory academic progress.

### **Faculty**

**JACK A. HERRING** (2013) Dean. BS, University of Alaska, Fairbanks; PhD, University of Washington.

**BABAFEMI AKINRINADE** (2008) Assistant Professor. LL.B University of Ife; BL Nigerian Law School, LL.M Obafemi Awolowo University, LL.M. University of Notre Dame, J.S.D. University of Notre Dame.

**GARY BORNZIN** (1981) Senior Lecturer. BS, California Institute of Technology; MS, PhD, University of Colorado.

**JOHN L. BOWER** (1998) Professor. BS, PhD, Cornell University.

**LESLIE CONTON** (1980) Professor. BA, Oberlin College; MA, PhD, University of Oregon.

**MARIE D. EATON** (1975) Professor. BA, Pomona College; MEd, PhD, University of Washington.

**LAWRENCE J. ESTRADA** (1989) Associate Professor and Director, American Cultural Studies. BA, University of California, Santa Barbara; MEd, Whittier College; PhD, University of California, Los Angeles.

**JOHN V. FEODOROV** (2005) Associate Professor. BFA, California State University-Long Beach; MFA, Vermont College.

**JULIE A. HELLING** (2000) Associate Professor. BA, University of Iowa; JD, University of Michigan Law School.

**DANA C. JACK** (1982) Professor. BA, Mount Holyoke; MSW, University of Washington; EdD, Harvard University.

**DANIEL M. LARNER** (1968) Professor. AB, Harvard College; MS, PhD, University of Wisconsin, Madison.

**RAQUEL MONTOYA-LEWIS** (2003) Associate Professor. BA, University of New Mexico; MSW, JD, University of Washington.

**NIALL Ó MURCHÚ** (2001) Associate Professor. BA, MA, University College, Dublin; MA, PhD, University of Washington.

**DAN FIRST SCOUT ROWE** (1998) Instructor. BA, Montana State University at Billings; MA, Purdue University.

**HILARY SCHWANDT** (2013) Assistant Professor. BA, Cal Poly, San Luis Obispo; MHS, PhD, John Hopkins Bloomberg School of Public Health.

**TANIS S'EILTIN** (1992) Associate Professor. BA, University of Alaska, Fairbanks; MFA, University of Arizona.

**STAN TAG** (1997) Associate Professor. BA, Whitworth College; MA, PhD, University of Iowa.

**MIDORI TAKAGI** (1994) Associate Professor. BA, Oberlin College; MA, American University; MPhil, PhD, Columbia University.

**JOHN TUXILL** (2007) Associate Professor, BA, Williams College; MS University of Wisconsin-Madison, PhD, Yale University.

**Faculty specialties.** Areas of faculty study and interest include African American and Asian American history, American literature, anthropology, art and art history, constitutional and environmental law, creative writing, ecology, economics, history and philosophy of science, human development, mathematics, multicultural issues and literature, music, Native American issues, natural sciences, nature writing, ornithology, physics, poetry, psychology of women, queer studies, scriptwriting, social theory, theater and drama, theory and practice of teaching, video production, women studies, ethics, philosophy of nature, political philosophy, and other areas. Other members of the Western Washington University faculty from various departments and programs contribute to Fairhaven's curriculum as teachers of classes, members of advisory committees for concentrations and as lecturers. Visiting faculty and guest lecturers from other universities, and from a variety of other occupations, also add to the resources available to Fairhaven students.

## Other College Information

### *Tuition, Financial Aid and Scholarships*

Fairhaven students pay the same tuition and fees as students of other colleges in the University. See other sections of this catalog for specific details. Information regarding federal, state and private financial assistance and application procedures should be addressed to: Financial Aid, Western Washington University, Bellingham, WA 98225-9006.

Fairhaven offers scholarships to selected students. Check the college's website or the WWU scholarship center website for information.

### *The Registration Process*

University Registration. Registration for Fairhaven College offerings occurs during scheduled University registration periods. Class schedules (timetables) are available online. Registration for Fairhaven College variable credit classes and independent studies is via the **Web4U Independent Study Proposal process**. Fairhaven College Students. Credit earned by Fairhaven students taking Fairhaven classes may apply to the core requirements, to the concentration or to the general 180-credit requirement for graduation. Credit earned in other WWU classes by Fairhaven students may apply to the major or concentration, or to the 180-credit requirement for graduation.

Other WWU Students. Fairhaven College credit earned by students affiliated with Western's other colleges is applied to the general 180-credit requirement for graduation. Occasionally department advisors in other colleges may approve Fairhaven courses as electives for majors. Fairhaven's courses and studies are open to all WWU students (unless indicated in prerequisites or otherwise).

The Fairhaven College Quarterly Class Descriptions. Available prior to registration in the fall, winter and spring, this publication is available online. It announces schedule changes and additions and describes in detail Fairhaven's offerings each term. Students are advised to consult the schedule before finalizing their programs.

### *Grading Evaluation*

At Fairhaven College of Interdisciplinary Studies, the A-to-F grading system is not used. Classes and studies are taken on a "Satisfactory/Unsatisfactory" basis. Academic credit is granted after requirements have been

## FAIRHAVEN COLLEGE OF INTERDISCIPLINARY STUDIES

satisfactorily completed and the student has submitted a written self-evaluation of his or her work to faculty instructors. Faculty respond with a written evaluation of the student's progress. Credit will be entered on Fairhaven students' official transcripts only if they fulfill their academic obligations.

The official transcript, held in the University Registrar's office, lists all Fairhaven and other Western Washington University classes completed. A cumulative GPA is not displayed on the official transcript for Fairhaven students. The student-faculty narrative evaluations are held in the student's permanent academic file and form part of the student's credentials for applying for employment and for graduate programs. For students enrolled in Fairhaven College a complete record of academic achievement includes both the official transcript and an official set of narrative evaluations to supplement this transcript.

Credits attempted but not completed will be recorded in the student's Academic History with an NX. The college does not assign a K grade (incomplete) to Fairhaven students, but instead does not award credit until a class is completed. If a registered class is never completed and no credit is awarded, the incomplete class does not appear on the student's official transcript. An NX, indicating "no credit awarded," will appear in the Grade column of the student's unofficial Academic History.

Students receiving an NX may request a Time Extension Contract from the instructor outlining the terms of work to be completed for the awarding of credit. The maximum deadline for credit to be awarded for an NX class is one year after the quarter of enrollment, pending instructor approval.

Federal regulations require all schools participating in Title IV federal financial aid programs to have a standard of Satisfactory Progress, which applies to all applicants/recipients of financial aid as one determinant of eligibility. Classes receiving an NX will count toward credits attempted in Financial Aid Satisfactory Academic Progress and may affect eligibility for aid.

Fairhaven College follows all other student records policies of Western Washington University found elsewhere in this catalog.

### *Assessment*

A culture and pedagogy of self-assessment and reflection have been significant features of teaching and learning at Fairhaven College since its founding as an experimental college. Assessment is part of learning. Students assess their own learning in each course and are also asked to assess the course and the faculty. Students assess their writing skills in the development of a writing plan, and later in their education revisit that plan when they create their college writing portfolio. A cumulative self-assessment, the Summary and Evaluation, is required of all students prior to graduation.

Faculty provide individual narrative assessment of students in each course they teach, and provide on-going assessment of student growth in the advising process. Faculty regularly revisit and respond to outcomes of their teaching through reviewing student self-evaluations, faculty and course evaluations. Faculty peer review of teaching practices happen regularly through team teaching, shared concentration committee mentorship of students, shared advising (often in student Transition conferences) and collaborative curriculum review and college governance.

The Fairhaven Curriculum Committee, which includes faculty, staff, and students, periodically assesses the entire core program and processes.

**The Law, Diversity & Justice (LDJ) Concentration** is an interdisciplinary course of study for students who are interested in law, diversity and access to the legal system for under-served communities. The Law, Diversity and Justice Concentration is open to all Fairhaven students with a passion for social justice. The concentration welcomes students who desire to effect change and who have the potential to act as leaders and role models in their communities using legal knowledge and processes. Through the Fairhaven College Concentration Seminar and faculty advisement, students combine the required Law, Diversity and Justice curriculum with courses throughout the University to develop the skills and knowledge necessary for success in law school and other careers in social justice work.

**LDJ Required Curriculum** Students pursuing the Law, Diversity, and Justice Concentration must take the courses in addition to satisfying the Fairhaven College Core curriculum. The required classes in Law, Diversity, and Justice are:

- FAIR 311b The American Legal System

- At least one of the following courses:
  - FAIR 393b Rights, Liberties and Justice in America
  - FAIR 334c International Human Rights
- FAIR 412e Advanced Topics in Law
- FAIR 422k Advanced Legal Writing and Analysis

## Bachelor of Arts

### Fairhaven Interdisciplinary Concentration, BA

Fairhaven College of Interdisciplinary Studies

#### 180 Credits

#### Introduction/What is the Study of Fairhaven Interdisciplinary?

**Fairhaven Interdisciplinary Concentration – The Individually Designed Major.** The Fairhaven Interdisciplinary Concentration provides an opportunity for developing an individually designed major for the Bachelor of Arts or Bachelor of Arts in Education degrees. It allows maximal flexibility in formulating a program to meet personal and career goals, bringing together each student's vital interests from more than one discipline into a cohesive whole.

The self-designed concentration process allows students to work with a faculty committee to articulate a sound rationale for their area of study and to develop a plan including courses, independent study projects, senior projects and, where applicable, internships and apprenticeships. Students are assisted in completing the concentration by faculty and other advisors and by the Concentration Seminar course. At the conclusion of the program, a senior project and a concentration summary and evaluation help each graduate to evaluate her or his own work and to look toward the future.

Concentrations have been developed in a wide range of areas not available through traditional majors. Further information pertaining to the concentration, its possibilities and prospects, may be found in the *Student Guide to Fairhaven College*.

#### Why Consider a Concentration in Fairhaven Interdisciplinary?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

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## FAIRHAVEN COLLEGE OF INTERDISCIPLINARY STUDIES

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Visitors are welcome and with advance notice, appointments can be arranged with Fairhaven advising and admissions staff, students or other WWU staff.

### **Fairhaven Grade Requirements**

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### **Fairhaven Core Program**

A core program, unique to Fairhaven College, includes a series of courses designed to widen students' exposure to areas of study, to connections among disciplines and to interdisciplinary theory and practice. Its purpose is to help students become perceptive, probing learners who can ask questions and pursue answers with care and confidence. Skills in reading, writing, presentation and analysis are emphasized. Each course deals with methods of knowing and understanding, themes, modes of creativity and practical applications to be found in each area of study.

Elements of this core contribute to its unique character:

- Courses are conducted in a collaborative seminar format
- Class sizes seldom exceed 20 students
- A strong mentoring/advising relationship is established
- Interdisciplinary studies mirror the shape of complex problems
- Instruction is shared by all Fairhaven faculty members — artists, scientists, philosophers, historians, poets — who adapt the diverse themes of their disciplines to core studies
- Evaluation takes the form of narrative assessment

Fairhaven students complete Fairhaven's core program in lieu of the WWU General University Requirements. A student who leaves Fairhaven for another WWU program must complete the GUR. Fairhaven College also

## FAIRHAVEN COLLEGE OF INTERDISCIPLINARY STUDIES

offers the opportunity for self-motivated students who have demonstrated exceptional learning skills to design an individualized alternative to parts of the core program, making systematic use of existing course challenge procedures.

There are core courses in each of three curricular stages. Students need not complete one curricular stage before advancing to the next.

### Requirements: Exploratory Studies

- FAIR 101A - An Introduction to Interdisciplinary Study At Fairhaven College
- FAIR 201A - Critical and Reflective Inquiry
- FAIR 202A - Core: Humanities and the Expressive Arts I
- FAIR 203A - Social Relationships and Responsibility: Theories and Critiques
- FAIR 206A - Core: Science and Our Place on the Planet I
- FAIR 305A - Core: Writing and Transition Conference
  - One 300-level course in each of the following areas, with the specific course in each area, selected from a listing of approved courses found in the quarterly **Fairhaven Course Description Booklet**: Humanities and the Expressive Arts, Society and the Individual, and, Science and Our Place on the Planet

### The Individually Designed Major - Concentrated Studies

- FAIR 303A - Core: Interdisciplinary Concentration Seminar
- FAIR 401A - Core: Senior Project
  - Coursework as approved by the Individual Designed Major Committee

### Additional Requirements - Advanced Studies

- FAIR 403A - Core: Advanced Seminar

### Law, Diversity and Justice Option

**The Law, Diversity & Justice Concentration** is an interdisciplinary course of study for students who are interested in law, diversity and access to the legal system for under-served communities. The Law, Diversity and Justice Concentration is open to all Fairhaven students with a passion for social justice. The concentration welcomes students who desire to effect change and who have the potential to act as leaders and role models in their communities using legal knowledge and processes. Through the Fairhaven College Concentration Seminar and faculty advisement, students combine the required Law, Diversity and Justice curriculum with courses throughout the University to develop the skills and knowledge necessary for success in law school and other careers in social justice work.

**LDJ Required Curriculum** Students pursuing the Law, Diversity, and Justice Concentration must take the courses in addition to satisfying the Fairhaven College Core curriculum. The required classes in Law, Diversity, and Justice are:

- FAIR 211b The American Legal System (5)
- At least one of the following courses:
  - FAIR 393b Rights, Liberties and Justice in America (4)
  - FAIR 334c International Human Rights (4)
- FAIR 412e Advanced Topics in Law (2-5)
- FAIR 422k Advanced Legal Writing and Analysis (4)

## The Upside-Down Program, BA

Fairhaven College of Interdisciplinary Studies

### Introduction/What is the Study of The Upside-Down Program?

**The Upside-Down Degree.** The usual route to a BA degree calls for general education in the first two years and specialization in the last two years. Fairhaven's Upside-Down BA gives selected students an option to reverse this process. Graduates of Washington state community colleges who hold the ATA, the AAS or other approved two-year technical degrees may apply to transfer their specializations to Fairhaven as the completed major. Stages 1 and 3 of the curriculum and a minimum of 90 credits are then required for graduation. Students are expected to complete as much as possible of their elective credit at the upper-division level (courses numbered 300 or above). Each application for this program is reviewed on an individual basis. Students are urged to contact Fairhaven College early in the admissions process.

### Why Consider a The Upside-Down Program Major?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

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Visitors are welcome and with advance notice, appointments can be arranged with Fairhaven advising and admissions staff, students or other WWU staff.

### Fairhaven Grade Requirements

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  - Society and the Individual
  - Science and our Place on the Planet

## **Bachelor of Arts in Education**

### **Fairhaven Interdisciplinary Concentration, BAE**

Fairhaven College of Interdisciplinary Studies

#### **Introduction/What is the Study of Fairhaven Interdisciplinary?**

**Fairhaven Interdisciplinary Concentration – The Individually Designed Major.** The Fairhaven Interdisciplinary Concentration provides an opportunity for developing an individually designed major for the Bachelor of Arts or Bachelor of Arts in Education degrees. It allows maximal flexibility in formulating a program to meet personal and career goals, bringing together each student's vital interests from more than one discipline into a cohesive whole.

The self-designed concentration process allows students to work with a faculty committee to articulate a sound rationale for their area of study and to develop a plan including courses, independent study projects, senior projects and, where applicable, internships and apprenticeships. Students are assisted in completing the concentration by faculty and other advisors and by the Concentration Seminar course. At the conclusion of the program, a senior project and a concentration summary and evaluation help each graduate to evaluate her or his own work and to look toward the future.

Concentrations have been developed in a wide range of areas not available through traditional majors. Further information pertaining to the concentration, its possibilities and prospects, may be found in the *Student Guide to Fairhaven College*.



## Why Consider a Concentration in Fairhaven Interdisciplinary?

Contact Information

Sample Careers

Major/Career Resources

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### Fairhaven Grade Requirements

At Fairhaven College of Interdisciplinary Studies, the A-to-F grading system is not used. Classes and studies are taken on a "Satisfactory/Unsatisfactory" basis. Academic credit is granted after requirements have been satisfactorily completed and the student has submitted a written self-evaluation of his or her work to faculty instructors. Faculty respond with a written evaluation of the student's progress. Credit will be entered on Fairhaven students' official transcripts only if they fulfill their academic obligations.

The official transcript, held in the University Registrar's office, lists all Fairhaven and other Western Washington University classes completed. A cumulative GPA is not displayed on the official transcript for Fairhaven students. The student-faculty narrative evaluations are held in the student's permanent academic file and form part of the student's credentials for applying for employment and for graduate programs. For students enrolled in Fairhaven College a complete record of academic achievement includes both the official transcript and an official set of narrative evaluations to supplement this transcript.

Credits attempted but not completed will be recorded in the student's Academic History with an NX. The college does not assign a K grade (incomplete) to Fairhaven students, but instead does not award credit until a class is completed. If a registered class is never completed and no credit is awarded, the incomplete class does not appear on the student's official transcript. An NX, indicating "no credit awarded," will appear in the Grade column of the student's unofficial Academic History.

Students receiving an NX may request a Time Extension Contract from the instructor outlining the terms of work to be completed for the awarding of credit. The maximum deadline for credit to be awarded for an NX class is one year after the quarter of enrollment, pending instructor approval.

Federal regulations require all schools participating in Title IV federal financial aid programs to have a standard of Satisfactory Progress, which applies to all applicants/recipients of financial aid as one determinant of eligibility. Classes receiving an NX will count toward credits attempted in Financial Aid Satisfactory Academic Progress and may affect eligibility for aid.

Fairhaven College follows all other student records policies of Western Washington University found elsewhere in this catalog.

### Fairhaven Core Program

A core program, unique to Fairhaven College, includes a series of courses designed to widen students' exposure to areas of study, to connections among disciplines and to interdisciplinary theory and practice. Its purpose is to help students become perceptive, probing learners who can ask questions and pursue answers with care and confidence. Skills in reading, writing, presentation and analysis are emphasized. Each course deals with methods of knowing and understanding, themes, modes of creativity and practical applications to be found in each area of study.

Elements of this core contribute to its unique character:

- Courses are conducted in a collaborative seminar format
- Class sizes seldom exceed 20 students
- A strong mentoring/advising relationship is established
- Interdisciplinary studies mirror the shape of complex problems
- Instruction is shared by all Fairhaven faculty members — artists, scientists, philosophers, historians, poets — who adapt the diverse themes of their disciplines to core studies
- Evaluation takes the form of narrative assessment
- 

Fairhaven students complete Fairhaven's core program in lieu of the WWU General University Requirements. A student who leaves Fairhaven for another WWU program must complete the GUR. Fairhaven College also offers the opportunity for self-motivated students who have demonstrated exceptional learning skills to design an individualized alternative to parts of the core program, making systematic use of existing course challenge procedures.

There are core courses in each of three curricular stages. Students need not complete one curricular stage before advancing to the next.

Requirements: Fairhaven Core

#### *Exploratory Studies*

- FAIR 101A - An Introduction to Interdisciplinary Study At Fairhaven College
- FAIR 201A - Critical and Reflective Inquiry
- FAIR 202A - Core: Humanities and the Expressive Arts I
- FAIR 203A - Social Relationships and Responsibility: Theories and Critiques
- FAIR 206A - Core: Science and Our Place on the Planet I
- FAIR 305A - Core: Writing and Transition Conference
- FAIR 403A - Core: Advanced Seminar
- One 300-level course in each of the following areas, with the specific course in each area, selected from a listing of approved courses found in the quarterly **Fairhaven Course Description Booklet**:
  - Humanities and the Expressive Arts
  - Society and the Individual
  - Science and our Place on the Planet

#### Professional Education Requirements

For students wishing to acquire teaching credentials, Western's Woodring College of Education offers a choice of majors — including certain Fairhaven Concentrations — appropriate to public school teaching. Faculty advise students in the construction of their programs and work closely with the College of Education in helping students to complete requirements.

Fairhaven Interdisciplinary Concentration: The Individually Designed Major

- FAIR 303A - Core: Interdisciplinary Concentration Seminar

- FAIR 401A - Core: Senior Project
- Coursework as approved by Individual Designed Major committee

## Minor

### Audio Technology, Music and Society Minor

Fairhaven College of Interdisciplinary Studies

#### 30 credits (minimum)

#### Introduction/What is the Study of Audio Technology, Music and Society?

This minor provides study in audio recording techniques, augmented by the study of music and music's role in our society as entertainment, as cultural representation and as a tool for social critique.

#### Why Consider an Audio Technology, Music and Society Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Students seeking admission to the minor should contact Marie Eaton or Jackie McClure at Fairhaven College.

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Core Requirements

- FAIR 270H - Audio Recording I
- FAIR 370H - Audio Recording II
- FAIR 370P - Introduction to Pro Tools
- FAIR 370Q - Pro Tools HD Recording (although this class is repeatable, only one section may be applied to the Minor)
- MUS 101 - Fundamentals of Music
- Two courses selected from the Music and Society list:
  - FAIR 255Y - Folk Music Experience
  - FAIR 336V - Topics in Art
  - FAIR 334Q - The Science and Music of Natural Sounds
  - FAIR 336M - Topics in Music & Society
  - FAIR 353V - Art in Public Sphere
  - FAIR 353Y - Songwriting Workshop
  - MUS 205 - Survey of Non-Western Musical Cultures
  - MUS 305 - Musics of the Pacific Rim

Electives (7-11 credits) by advisement

Through these electives a student may focus more on one element of the minor. Other courses or independent studies may be substituted with permission of Minor advisor.

□ Any courses from the Music and Society list not applied to the Core:

- COMM 244 - Advocacy Through Media
- COMM 430 - Visual Rhetoric
- FAIR 336V - Topics in Art
- FAIR 353Y - Songwriting Workshop
- JOUR 190 - Introduction to Mass Media
- JOUR 375 - Diversity, Mass Media and Social Change
- MUS 230 - Introduction to Electroacoustic Music
- MUS 232 - Computer Music Seminar
- MUS 432 - Electroacoustic Music

## **Education and Social Justice Minor (see Secondary Education Department)**

Education and Social Justice Minor (see Secondary Education department)

## **Law, Diversity & Justice Minor**

Fairhaven College of Interdisciplinary Studies

### **23-28 credits**

#### **Introduction/What is the Study of Law, Diversity & Justice?**

The Law, Diversity & Justice Minor is an interdisciplinary course of study for students who are interested in law, diversity and access to the legal system for under-served communities. This minor, open to all Western students, is taught by a faculty that includes attorneys using law school texts. The minor builds the skills necessary for success after college: critical reading, writing, research, oral communication, and analytical ability. The curriculum also emphasizes a critical examination of how issues such as race, class, gender, sexual orientation and disability intersect with the legal system. The minor welcomes students who desire to effect change and who have the potential to act as leaders and role models in their communities using legal knowledge and processes.

#### **Why Consider a Law, Diversity & Justice Minor?**

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### **How to Declare (Admission and Declaration Process):**

Successful completion of PLSC 311 with a grade of C or better or FAIR 311B with a grade of 'S', and permission of the Law, Diversity and Justice (LDJ) Minor Advisor.

# FAIRHAVEN COLLEGE OF INTERDISCIPLINARY STUDIES

## Grade Requirements

A grade of 'S' in Fairhaven courses or C- or better in courses in other departments is required for this minor.

NOTE: An 'S' in a Fairhaven College course is equivalent to C or better work.

### Core Requirements (15-18 credits)

- FAIR 311B - The American Legal System
- One course from:
  - FAIR 334C - International Human Rights
  - FAIR 393B - Rights, Liberties and Justice in America
- FAIR 412E - Advanced Topics in Law
- FAIR 422K - Advanced Legal Writing and Analysis (senior year)

### Electives (minimum 8-10 credits)

Additional coursework related to diversity issues approved in advance by the LDJ Minor advisor. These courses might be drawn from the American Cultural Studies courses, Fairhaven courses, Political Science courses, Sociology courses, or other appropriate electives with approval.

## Fairhaven Courses

### **FAIR 101A - An Introduction to Interdisciplinary Study At Fairhaven College**

Provides a framework for Fairhaven College's interdisciplinary philosophy and practices. Students will be introduced to the Fairhaven community, mission, educational philosophies, and their complementary processes leading toward graduation. S/U grading.

**Prerequisites & Notes:** admission to Fairhaven College

Credits: 1

Grade Mode: S/U

### **FAIR 119B - Introduction to Legal Systems and Mock Trial**

Introduction to the American legal system. Mock trial emphasized. S/U grading.

**Prerequisites & Notes:** Viking Launch admission.

Credits: 2

Grade Mode: S/U

### **FAIR 162B - Film/Video Production with Final Cut Pro**

In this course you will learn how to plan for, shoot and edit short videos using Final Cut Pro X. Students will complete 4 short videos by the end of the week; one 30 second commercial, one "my life

on campus" video, a short silent video and a group music video. Throughout the assignments the class will cover the basics of shooting with a green screen, light kit set-up, microphones and prosumer video cameras. Taught during Summer Quarter for College Quest only.

Credits: 1

Grade Mode: S/U

### **FAIR 201 - Intermediate Foundations**

Focus on critical learning skills, academic writing, aspects of educational theory, curricular structures and individualized learning. Individualized attention to writing and independent study skills. S/U grading.

**Prerequisites & Notes:** some college experience; admission coordinator permission

Credits: 6

Grade Mode: S/U

### **FAIR 201A - Critical and Reflective Inquiry**

This interdisciplinary seminar engages students in the processes of critical and reflective thinking, reading and writing. It is a place to explore what these processes are, why they are valued, how they work, and where they fit into a Fairhaven education. Exploration of these processes will be

rooted in a topical and methodological approach of the professor's choosing. S/U grading.

**Prerequisites & Notes:** Admission to Fairhaven College

Credits: 5

Grade Mode: S/U

**FAIR 202A - Core: Humanities and the Expressive Arts I**

Explores the assumptions and practices which inform human inquiry and creativity in literature, philosophy and the arts. S/U grading.

Credits: 5

Grade Mode: S/U

**FAIR 203A - Social Relationships and Responsibility: Theories and Critiques**

This interdisciplinary seminar is an introduction to modern social theory. Employs critical social theories to explore social relationships and examine society from positions of race, class, gender and sexuality, focusing specifically on the rights, responsibilities and obligations of individuals and communities. Integral to this examination are the experiences of those excluded from the Western ideals of freedom and equality that, arguably, form the basis of liberal democracy. S/U grading.

**Prerequisites & Notes:** Admission to Fairhaven College

Credits: 5

Grade Mode: S/U

**FAIR 206A - Core: Science and Our Place on the Planet I**

Science and technology are systematic, self-critical, intellectual activities by which a culture seeks to understand and benefit from the physical phenomena of its world. This course addresses science in Western culture - its social and philosophical implications, its technological applications, its potential and its limitations. S/U grading.

Credits: 5

Grade Mode: S/U

**FAIR 210A - World Issues**

Exploration of varied global issues related to the increasingly complex issues of economic disparities, fragile democracies, environmental degradation, wars, human rights, globalization, and ethnic/religious conflicts. Examination of how the media shapes our understanding of these issues and our responsibilities as engaged citizens. This course is connected to the World Issues Forum speaker series. S/U grading. Repeatable up to 12 credits.

Credits: 4

Grade Mode: S/U

GUR Attributes: ACGM

**FAIR 212C - Introduction to Political Economy**

Study of the American macroeconomic system from two perspectives: orthodox and critical; application of both theoretical frameworks to problems in modern society. S/U grading.

Credits: 5

Grade Mode: S/U

**FAIR 212E - Coast to Coast on a Piece of Toast: Hoboism and the Great Depression**

Explores phenomenon of 'riding the rails' in America in the Twentieth Century. Examines the effects of 'hoboism' and the Great Depression on labor and politics as well as literature, music and art. S/U grading.

Credits: 4

Grade Mode: S/U

**FAIR 213B - Topics in Popular Culture**

Introductory course looking at critical interpretations of popular culture theory as it relates to particular popular culture phenomena from an interdisciplinary perspective. Topics may include reality television, soap operas, celebrity and tabloid magazines, advertising, and more. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 201A or concurrent registration.

Credits: 2-5

Grade Mode: S/U

**FAIR 213D - Slave Narratives and Other Testimonies of the Old South**

## FAIRHAVEN COLLEGE OF INTERDISCIPLINARY STUDIES

An introductory, interdisciplinary approach to early African American history and the history of the Old South. Using slave autobiographies, WPA interviews, free black testimonies and memoirs in addition to contemporary historical works, we will reconstruct, analyze and deconstruct the history of Southern life and culture during the Antebellum era through the Civil War. S/U grading.

Credits: 3  
Grade Mode: S/U

### **FAIR 214B - Interdisciplinary Topics in American Experience**

Significant events, movements, art genres, history or other phenomena in American society. Uses multiple approaches, not limited to the traditional disciplines, to interpret course material. Examples of topics include a particular art form, the Ku Klux Klan etc. Repeatable with different topics. S/U grading.

Credits: 3-4  
Grade Mode: S/U

### **FAIR 214E - Historian As Detective**

Introduction to the challenges of investigation. Assignments develop specific research skills, an understanding of evidence and the nature of historical knowledge. Use of reference tools, historical fiction, essays and readings in classical historians: Herodotus, Thucydides, Tacitus, Gibbon. S/U grading.

Credits: 5  
Grade Mode: S/U

### **FAIR 215F - The Asian-American Experience**

The history of Asians in the United States, the development of communities and the effects of the encounter between Asian cultures and the developing American cultural context. Also offered as AMST 205. S/U grading.

**Prerequisites & Notes:** Also offered as AMST 205  
Credits: 3  
Grade Mode: S/U

### **FAIR 216B - Testimonies of the New South**

An interdisciplinary, introductory-level course examining the social, cultural, economic changes

that occurred in the South after the Civil War to the early 1900s. The primary source of documentation will be autobiographies, speeches, literature and commentaries made by black and white southerners who experienced these changes at that time. This course is a continuation of Fair 213D. S/U grading.

Credits: 3  
Grade Mode: S/U

### **FAIR 218C - The Hispano/A-American Experience**

The development of the Hispano/a-American community, with emphasis on its history, its social and political institutions, and the effects of education, continuing immigration and economic stratification. Also offered as AMST 203. S/U grading.

**Prerequisites & Notes:** Also offered as AMST 203.

Credits: 3  
Grade Mode: S/U

### **FAIR 219D - The African-American Experience**

An overview of African-American history from an interdisciplinary perspective. Emphasis is on the struggle for social and political equality in a developing capitalist economy. The contemporary social, economic and political life of African Americans will also be examined. S/U grading. Also offered as AMST 204.

Credits: 3  
Grade Mode: S/U

### **FAIR 221J - College Writing**

Directed toward the student who wishes to improve expository writing skills. Theory, practice and criticism of student work. S/U grading.

Credits: 4  
Grade Mode: S/U

**FAIR 222G - Imaginative Writing: Poetry**  
S/U grading.

Credits: 4  
Grade Mode: S/U

**FAIR 222H - Imaginative Writing: Fiction**

S/U grading.

Credits: 4

Grade Mode: S/U

**FAIR 223G - Elements of Style**

An examination of the rules and principles of English composition, including grammar, punctuation, word usage, sentence construction, and strategies for proofreading and revision. Repeatable 3 times. S/U grading.

Credits: 1

Grade Mode: S/U

**FAIR 223K - Collecting Personal Narratives: the Art of the Interview**

Introduction to skills in listening, questioning, and critical approaches to critiquing interviews. S/U grading.

Credits: 4

Grade Mode: S/U

**FAIR 225G - Presentational Speaking**

An opportunity to develop strategies for effective presentations in a variety of contexts. S/U grading.

Credits: 3

Grade Mode: S/U

**FAIR 226H - Words**

An etymological exploration of words: their origins, roots, history, evolution, connotations, and usage. S/U grading.

Credits: 4

Grade Mode: S/U

**FAIR 227J - Walking**

A literary and experiential examination of walking. S/U grading.

Credits: 4

Grade Mode: S/U

**FAIR 231N - Introduction to Applied Human Ecology: Sustainable Systems**

Study of relationships between human systems and the environment with an emphasis on the

principle of sustainability. Study of models of sustainable development and appropriate technology complement practical applications in the Outback Farm/Wetland/Outdoor Learning Center. Student participation in instruction. S/U grading.

Credits: 3

Grade Mode: S/U

**FAIR 232P - User-Friendly Statistics**

Basic statistical techniques (sampling, distributions, graphing, hypothesis testing, test of correlation and significance) in the context of real-world issues of concern to nontechnical majors, along with skills for evaluating and critiquing statistical arguments and discerning statistical abuse. S/U grading.

Credits: 4

Grade Mode: S/U

**FAIR 242R - The Art of Play: Reclaiming Imagination and Spontaneity for The Adult**

The practice of adult play with focus on methods to reclaim imagination and spontaneity. Providing an intellectual and interdisciplinary framework for understanding the nature of play through readings in philosophy, anthropology and psychology. S/U grading.

Credits: 4

Grade Mode: S/U

**FAIR 243T - Awareness Through the Body**

An experiential introduction to the discipline of somatics and to traditions of somatic practice. Attention is paid both to theories and experiences of the body and its immediate environment. S/U grading.

Credits: 4

Grade Mode: S/U

**FAIR 243U - Topics in Mind and Body**

An interdisciplinary exploration of the interface between mind, body and psyche; including, but not limited to, studies in somatics, movement, dance, sensory awareness, cross-cultural or integrative wellness paradigms, consciousness, death and dying. Approaches may be experiential, historical,



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education, theoretical, cultural, political and transpersonal. Repeatable with different topics to a maximum of 15 credits. S/U grading.

Credits: 3-5  
Grade Mode: S/U

### **FAIR 252V - Introduction to Drawing**

Studio course introducing experimental drawing mediums and style. Assigned projects emphasize the possibilities of extending traditional concepts concerning the parameters of drawing. Students set and solve their own experiential creative problems. S/U grading.

Credits: 4  
Grade Mode: S/U

### **FAIR 254X - Introduction to Relief Printing**

Introduction to basic relief printing techniques with emphasis on narrative image-making and composition. Woodblocks, linoleum blocks and plexiglass plates will be employed for understanding printing techniques. Repeatable up to 8 credits. S/U grading.

Credits: 4  
Grade Mode: S/U

### **FAIR 255Y - Folk Music Experience**

Focus on group performance of music from the American folk tradition, practicing instruments, learning songs, and researching folk music issues, performers, and/or songs and meeting weekly to play music together. Repeatable to a maximum of 8 credits. S/U grading.

Credits: 2  
Grade Mode: S/U

### **FAIR 257V - Topics in Studio Art**

An interdisciplinary exploration of specific topics in studio art, including painting, printmaking, sculpture, and mixed media. Approaches may include historical, theoretical, literary, cultural, or political readings. Repeatable with different topics. S/U grading.

Credits: 3-8  
Grade Mode: S/U

### **FAIR 258W - Introduction to Acrylic Painting**

Acrylic painting techniques and elements of form composition and color using still life, photographs and live models. S/U grading.

Credits: 4  
Grade Mode: S/U

### **FAIR 261E - Race In/To the Movies I: Race Relations on Film 1900-1950**

Explores race relations in America between 1900 and 1950 using film as one source of historical documentation. Films such as Birth of a Nation, Broken Blossoms and The Scar of Shame will demonstrate how movies both reflect and reinforce contemporary perceptions of inter- and intra-race relations. Readings will place the films into a broader historical context. S/U grading.

Credits: 4  
Grade Mode: S/U

### **FAIR 263B - The American Indian Experience**

Pre-contact American Indian cultures and the impacts of colonization, primarily in North America. Focus on such aspects as sovereignty, treaty rights, health, education and economic development. Also offered as AMST 202. S/U grading.

**Prerequisites & Notes:** Also offered as AMST 202

Credits: 3  
Grade Mode: S/U

### **FAIR 270B - Introduction to Digital Video Production**

This class will introduce basic camera use and video editing in the digital medium. Students will script, shoot, and edit 5 assignments using Final Cut Studio 2. Projects range from a 30-second commercial to a 3-5 minute final video on the student's choice of topic. S/U grading.

Credits: 2  
Grade Mode: S/U

### **FAIR 270H - Audio Recording I**

Audio Recording Techniques I explores the techniques, tools, and technology used in multi-track recording. S/U grading.

Credits: 4  
Grade Mode: S/U

**FAIR 280 - Practicum**

By arrangement: fall, winter and spring. Fairhaven College independent study permit card required for registration. Learning through practical involvement outside the classroom; general exposure and experience. Repeatable. S/U grading.

**Prerequisites & Notes:** approval by two or more Fairhaven faculty  
Credits: 1-6  
Grade Mode: S/U

**FAIR 303A - Core: Interdisciplinary Concentration Seminar**

Application of procedures and assistance in ordering one's course of study into an effective concentration proposal. Credit awarded upon filing the proposal or declaration of a WWU major. S/U grading.

**Prerequisites & Notes:** FAIR 101a, FAIR 201a, FAIR 203a and FAIR 305a. Required of students in the Interdisciplinary Concentration.  
Credits: 5  
Grade Mode: S/U

**FAIR 305A - Core: Writing and Transition Conference**

Development of a portfolio of writing and demonstration of writing competency and readiness to pursue Concentrated Studies, in consultation with faculty. See Student Guide to Fairhaven College for procedure. Partially satisfies the all-University writing proficiency requirement. S/U grading.

**Prerequisites & Notes:** FAIR 101a and FAIR 201a.  
Credits: 3  
Grade Mode: S/U

**FAIR 310N - American Indians in the Cinema**

Explores portrayal of American Indians in the cinema and the effects of racist images and perpetuated stereotypes on Native identity, self-esteem and cultural survival. S/U grading.

**Prerequisites & Notes:** Previous course in Native American studies or permission of instructor.  
Credits: 5  
Grade Mode: S/U

**FAIR 310W - American Indian Celebrations**

Cultural background and history of some American Indian celebrations. Films, readings, discussion, and sharing individual research. Will attend several Native celebrations in the area. This course is offered during the Summer quarter. S/U grading.

**Prerequisites & Notes:** AMST course or instructor permission  
Credits: 3-5  
Grade Mode: S/U

**FAIR 311B - The American Legal System**

The American legal system and how it affects individuals and society. The structure and evolving nature of the legal system, legal reasoning and the role of courts in government. Skill development in reading and analyzing court opinions. S/U grading.

**Prerequisites & Notes:** FAIR 203A or Social Science GUR or permission of instructor.  
Credits: 5  
Grade Mode: S/U  
GUR Attributes: SSC

**FAIR 311C - Alternatives in Education**

Exploration of various alternative education and school reform movements including philosophy, politics, implementation, financing and historical context. Some of the models which may be discussed include: Montessori, Steiner (Waldorf), home schooling, free schools, single culture or gender school programs, New American Schools Development Corporation. Repeatable with different topics. S/U grading.

Credits: 4  
Grade Mode: S/U

**FAIR 312D - Issues in International Studies**

Explores issues of concern to selected nations. May also include global scope. Examples of topics include globalization, reinventing development, and environmental issues in economically poor countries. Repeatable with various topics. S/U grading.

**Prerequisites & Notes:** FAIR 203a or instructor permission.

Credits: 3-6

Grade Mode: S/U

**FAIR 312E - Transgender Identities and Histories**

An overview of the transgender, transsexual, and intersex communities, focusing on the development of identity (male, female, 'other'). This course will look at the narratives of trans people and the history of the communities, as well as the questions raised about the nature of gender identity formation. S/U grading.

**Prerequisites & Notes:** FAIR 201A and FAIR 203A.

Credits: 4

Grade Mode: S/U

**FAIR 312F - Globalizations since 1870**

Overview of the global political economy and the expansions of the capitalist system from the late nineteenth century to the early twenty-first, from the era of globalization before World War I to our current era of globalization since 1973, via Two World Wars, the Great Depression, decolonization, and the Cold War. Examines facets of the history, politics, economics, sociology, and culture of globalization, the increased mobility of goods, people, capital, and ideas around the world. S/U grading. Also offered as INTL 312.

**Prerequisites & Notes:** FAIR 203A or INTL 201 required; FAIR 212C or ECON 206 recommended.

Credits: 5

Grade Mode: S/U

GUR Attributes: SSC

**FAIR 313D - Slave Narratives and Other Testimonies of the Old South**

This is an upper division course that examines the history of African and African-American slavery in the U.S. Starting from 1619, we will be exploring the development of the slave system, also referred to as the 'peculiar institution,' from the view point of enslaved African Americans, to the final collapse and destruction of slavery during the Civil War. While the predominant source of documentation will be narratives and other testimonies written

during the 19th century, we will also pay attention to how scholars have approached slavery over the years.

**Prerequisites & Notes:** Any lower division U.S. history course or AMST 204 or FAIR 203A; or permission of instructor.

Credits: 5

Grade Mode: S/U

**FAIR 313E - Queer Issues in Education**

Explores challenges for gay, lesbian, bisexual, transgendered students, teachers and families in the education system including social and development considerations, the impact of mediated heterosexism, politics of schooling. Also explores roles of allies and curriculum transformation. S/U grading.

**Prerequisites & Notes:** AMST 242

Credits: 4

Grade Mode: S/U

**FAIR 314B - Advanced Interdisciplinary Topics in American Experience**

Study of events, movements, art genres, or other phenomena in America. Employs interdisciplinary approaches and social theory to deeply explore topics. Topics might include the art deco movement, nativist movements, or war. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 203A

Credits: 4

Grade Mode: S/U

**FAIR 314E - Critical Pedagogy**

This course helps students, who may or may not be looking toward a professional career in schools, develop the knowledge and skills necessary to critically examine and evaluate various classroom practices using the theories and practice of critical pedagogy. Analyses will focus on those practices which are conceptually sound, ethically responsible, and culturally responsive, or will consider the various ways to make them so.

**Prerequisites & Notes:** AMST 301 or FAIR 366E.

Credits: 4

Grade Mode: S/U

**FAIR 319B - Current Issues in Law**

A look at one or two current legal issues being addressed by US courts (including federal, state and/or tribal) today. Study of the cases surrounding the legal issue, popular opinion about the issue, and current cases testing the legal issue. Examples of possible topics include abortion, immigration, criminal law and procedure. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 311B or PLSC 311 or permission of instructor.  
Credits: 2-5  
Grade Mode: S/U

**FAIR 319E - Advanced Topics in Popular Culture**

Advanced course studying major popular culture theorists and applying those theories to the study of popular culture from an interdisciplinary perspective. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 201A and FAIR 203A  
Credits: 2-5  
Grade Mode: S/U

**FAIR 322M - Memoirs and Memory: Childhood in America**

Using literature, film and theoretical readings, investigates the 'idea' of childhood and, using other cultures and historical periods as lenses, examines how today's American society constructs the ideal and implements the reality. S/U grading.

**Prerequisites & Notes:** FAIR 201A and FAIR 203A or equivalent or instructor permission.  
Credits: 4  
Grade Mode: S/U

**FAIR 323G - Imaginative Writing II**

An opportunity to continue development of creative skills in fiction, poetry or writing for children, including the revision of promising works for publication. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 222G or FAIR 222H, creative writing course, or instructor permission.

Credits: 4  
Grade Mode: S/U

**FAIR 323H - Elements of Style II**

An exploration into the art of syntax and sentence-making. Builds on the exercises and concepts examined in Fair 223g Elements of Style. S/U grading.

**Prerequisites & Notes:** FAIR 223g or permission of instructor.  
Credits: 1  
Grade Mode: S/U

**FAIR 324H - Poetry and Lyric**

Exploration of both poetry and song lyrics with a focus on similarities and differences of compositional intent. Reading, listening and writing to explore how constraints and conventions of form shape poems and songs. S/U grading.

**Prerequisites & Notes:** FAIR 202A or equivalent or poetry course.  
Credits: 4  
Grade Mode: S/U

**FAIR 325G - Maps**

An interdisciplinary exploration of maps and mapmaking. Emphasis on the history of maps, diverse ways of mapping, cross-cultural expressions of space, and hands-on creation of individual and communal maps. S/U grading.

**Prerequisites & Notes:** FAIR 202A or instructor permission.  
Credits: 4  
Grade Mode: S/U

**FAIR 325J - Studies in Myth and Mythology**

Literary and artistic archetypes, world mythology, comparative cosmology, symbols and the unconscious. Repeatable with various topics. S/U grading.

**Prerequisites & Notes:** Background in humanities or cultural history.  
Credits: 4  
Grade Mode: S/U

**FAIR 328M - American Lives**

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Examines the lives and work of Americans. Subjects may include artists, environmentalists, writers, scientists, civil rights activists, athletes, children, and so on. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 202A or instructor permission.

Credits: 4

Grade Mode: S/U

### **FAIR 330D - Natural History and Environmental Issues of NW Washington**

S/U grading.

Credits: 5

Grade Mode: S/U

### **FAIR 330E - Ethnobotany**

Study of how people use plants--as food, medicine, material goods, and symbolic and ceremonial elements of human culture. Includes a focus on plant identification, historical exploration of plant uses, and hands-on learning about wild edibles, plant domestication, herbal medicines, fibers and more. S/U grading.

**Prerequisites & Notes:** FAIR 206A or equivalent.

Credits: 4

Grade Mode: S/U

### **FAIR 331N - Natural History**

An experiential and literary investigation into the science of natural history, its roots, and the diverse ways it is being applied to our contemporary lives and world. S/U grading.

**Prerequisites & Notes:** FAIR 206A or equivalent or instructor permission.

Credits: 5

Grade Mode: S/U

### **FAIR 331P - Studying Nature Through Photography**

Photography will be used as a tool for the study of nature. Students will develop their photography skills and then apply them in conjunction with field biology research. S/U grading.

**Prerequisites & Notes:** Fair 206A or permission.

Credits: 4

Grade Mode: S/U

### **FAIR 332N - Current Environmental Topics**

The interdisciplinary context of current environmental issues, including the scientific basis for concern. Examples include acid rain, loss of genetic diversity, climate modification by logging, global warming, ozone depletion, overpopulation, nuclear waste disposal. Repeatable with various topics. S/U grading.

**Prerequisites & Notes:** FAIR 206A or instructor permission.

Credits: 2-5

Grade Mode: S/U

### **FAIR 334B - Transitional Justice**

This course examines different approaches taken by countries and the international community in dealing with past serious violations of human rights, and the process by which formerly repressive States transform themselves into societies based on democracy and the rule of law. S/U grading.

**Prerequisites & Notes:** FAIR 203A

Credits: 4

Grade Mode: S/U

### **FAIR 334C - International Human Rights**

This course examines the idea of human rights, its historical, philosophical and legal origins. It explores the notion of universal rights and examines the relativity debate. It will introduce students to rights that are guaranteed and selective substantive rights will be examined - civil and political rights; economic, social and cultural rights, and other classes of rights. Other considerations include national, regional and international institutions created to supervise implementation of and compliance with those rights. It will also consider the role of non-governmental organizations and activists who seek to enforce human rights. S/U grading.

**Prerequisites & Notes:** FAIR 203a or instructor permission.

Credits: 5

Grade Mode: S/U

**FAIR 334D - State Failure and State Collapse**

Exploration of State failure and State collapse; considers the causes and consequences of State collapse and related issues of anarchy, civil war and the emergence of strong non-State actors. It also examines the regional implications of State collapse and the possibility of predicting and preventing failure and collapse. Student cannot receive credit for both this course and Fair 334e. S/U grading.

**Prerequisites & Notes:** FAIR 203A or permission of instructor.

Credits: 5

Grade Mode: S/U

**FAIR 334E - State Collapse and State Reconstruction**

Exploration of State failure and collapse and the prospects for reconstruction in these States. It examines the causes and consequences of State failure and collapse; the possibility of predicting and preventing failure or collapse; and various State rebuilding models. Focuses on contemporary cases of failure and collapse and State reconstruction. Student cannot receive credit for both this course and either FAIR 334D or FAIR 334G. S/U grading.

**Prerequisites & Notes:** FAIR 203A or permission of instructor.

Credits: 5

Grade Mode: S/U

**FAIR 334F - International Law**

Introduction to public international law, which governs the relations of States and increasingly, other non-State actors. Covers the basic doctrines of public international law and the international legal system, which will be applied to contemporary issues of international law. S/U grading. Also offered as INTL 334.

**Prerequisites & Notes:** FAIR 203A or permission of instructor.

Credits: 5

Grade Mode: S/U

**FAIR 334G - State Reconstruction**

This course considers the prospects for rebuilding failed and collapsed States. It examines various

state-building models and focuses on contemporary cases of reconstruction in the aftermath of failure and collapse, and other post-conflict reconstruction situations. Students cannot receive credit for both this course and FAIR 334E. S/U grading.

**Prerequisites & Notes:** FAIR 334D or permission of instructor.

Credits: 4

Grade Mode: S/U

**FAIR 334H - Human Rights in Africa**

This course examines the state and contemporary practice of human rights in Africa. It reviews efforts aimed at human rights promotion and protection, in the context of colonialism and neo-colonialism, apartheid, the authoritarianism of the post-colonial African State and recent public health challenges that threaten the welfare and dignity of individual Africans. Topics to be covered include the role of the African Charter on Human and People's Rights; human rights and democracy; the NEPAD initiative; economic, social, and cultural rights; the public health challenge -- HIV/AIDS, malaria and other diseases; human rights of women, children, and other vulnerable groups; human rights and armed conflict in Africa; challenges to and future prospects for human rights in Africa. S/U grading.

**Prerequisites & Notes:** FAIR 203A or FAIR 334C or SSC GUR course or instructor permission.

Credits: 5

Grade Mode: S/U

GUR Attributes: ACGM

**FAIR 334M - Nature Photography**

This field course involves instruction in photography for beginners and experienced photographers through the study of nature photography. The instructor provides classroom instruction and one-on-one instruction on such topics as exposure, depth of field, and composition during field trips to the Cascade Mountains and Deception Pass State Park. Offered summer quarter only. S/U grading.

Credits: 2-4

Grade Mode: S/U

**FAIR 334N - Topics in Evolutionary Biology**

Explores evolutionary theory, the history of evolutionary thought, and the relevance of biological evolution to the modern human condition. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 206A.

Credits: 4-8

Grade Mode: S/U

**FAIR 334P - Field Studies in Science**

Systematic studies of quantitative natural history, employing field techniques from biology, chemistry, physics, and interdisciplinary science. Repeatable to a maximum of 20 credits. S/U grading.

**Prerequisites & Notes:** FAIR 206A.

Credits: 3-8

Grade Mode: S/U

**FAIR 334Q - The Science and Music of Natural Sounds**

Recording sounds in local natural settings with a focus on how and why animals produce sound, how sound travels through the environment, how we can use the sound for biological survey work and to estimate environmental degradation, how urban sounds differ from natural areas, and using recordings to compose and perform music. S/U grading.

**Prerequisites & Notes:** FAIR 206A or instructor permission.

Credits: 5

Grade Mode: S/U

**FAIR 334R - Olympic National Park Natural History and Ecology**

This field course introduces the natural history and ecology of the Olympic National Park through a weeklong camping trip including visits and study in old growth forest, beaches, montane, and river systems. Offered summer quarter only. S/U grading.

**Prerequisites & Notes:** FAIR 206A or Permission of Instructor.

Credits: 5

Grade Mode: S/U

**FAIR 335B - Global Inquiry**

Preparation for global studies and travel abroad. S/U grading.

**Prerequisites & Notes:** FAIR 201a or equivalent  
Credits: 1

Grade Mode: S/U

**FAIR 335N - Visioning Sustainable Futures**

A critical examination of alternative futures envisioned by various writers representing the world views of diverse cultures and communities of interest, in light of present-day sociopolitical, economic and environmental realities. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 201A or ENG 101, and previous course work/experience in sociopolitical/environmental issues from sociopolitical perspective

Credits: 4-5

Grade Mode: S/U

**FAIR 335P - Global Biodiversity Science and Policy**

Introduction to the science of documenting, describing, categorizing, and measuring biological diversity globally, from genes and species to eco-regions and biomes. Includes an examination of 1) biodiversity's importance for human welfare and 2) current policies and approaches for conserving and sustaining biological diversity worldwide. S/U grading.

**Prerequisites & Notes:** FAIR 206A or equivalent.

Credits: 4

Grade Mode: S/U

**FAIR 336B - Topics in Social Issues**

An interdisciplinary exploration of specific topics in the social sciences, including studies in economics, political science, international studies, social theory, ethnicity, race, culture, gender, class, law, psychology, and social activism. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 203a or equivalent  
Credits: 4-5

Grade Mode: S/U

**FAIR 336M - Topics in Music & Society**

An interdisciplinary exploration of specific topics in the social applications and context of music, including studies of varied music genres and their roles in society as entertainment, as cultural representation and as tools for social critique.

Repeatable with different topics up to 12 credits. S/U grading.

Credits: 4

Grade Mode: S/U

**FAIR 336N - Topics in Science**

The interdisciplinary exploration of specific topics in science, including health, reproductive science, ecology, energy, natural history, animal studies, botany, sustainability, the history of science, and science and society. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 206a or equivalent

Credits: 4-5

Grade Mode: S/U

**FAIR 336V - Topics in Art**

An interdisciplinary exploration of specific topics in the arts, including music, art, creativity, dance, theatre, and performance. Approaches may be historical, theoretical, literary, cultural, or political, or through studio work. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 202a or equivalent

Credits: 4-5

Grade Mode: S/U

**FAIR 338P - Cultural and Biological Perspectives on Pregnancy and Childbirth**

The biology of pregnancy and childbirth, including the development of the fetus, morphological, physiological and psychological changes women experience during pregnancy and childbirth, and the co-evolutionary relationship between mothers and fetuses. Explores childbirth from cross-cultural and historical perspectives, and focuses on the ways American medicine has viewed and treated childbirth and recent changes in American childbirth practices. S/U grading.

**Prerequisites & Notes:** FAIR 203A and 206A or instructor permission.

Credits: 5

Grade Mode: S/U

**FAIR 339N - Environmental Issues of Indigenous Peoples of North America**

Explores the history, ethics, politics, and biology of environmental issues facing the world's indigenous peoples. Examine local and international case studies that involve Native hunting and fishing rights, land rights issues, and pollution issues. S/U grading.

**Prerequisites & Notes:** FAIR 206A or instructor permission.

Credits: 5

Grade Mode: S/U

**FAIR 340P - Sustainable Forestry**

An examination of the development of forestry as an applied science in Europe & the U.S. and of forest management worldwide, asking what common conditions favor or promote sustainable approaches to forest management? Critical examination of sustainability itself as a guiding concept in natural resource management. Taught every other year. S/U grading.

**Prerequisites & Notes:** FAIR 206A or permission of instructor.

Credits: 4

Grade Mode: S/U

**FAIR 341R - Psychology of Mindfulness and Well-Being**

Numerous studies show that 'mindfulness,' an ancient practice now widely used in the West, offsets stress and leads to health, focus, and feelings of well-being. This course examines the origins, techniques and effects of mindfulness. S/U grading.

**Prerequisites & Notes:** FAIR 203A and psychology related course or instructor permission.

Credits: 5

Grade Mode: S/U

**FAIR 341T - Awareness Through the Body II**

A continuation of FAIR 243T (formerly FAIR 243) with deeper attention, intellectual and experiential, to the philosophical concepts introduced in the first course, to psychophysical integration, and to the



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underlying principles and theories in somatics. S/U grading.

**Prerequisites & Notes:** FAIR 243R or instructor permission.

Credits: 4

Grade Mode: S/U

### **FAIR 342U - The Body Speaks: Culture and Eating Disorders**

Examines eating disorders in the United States and developing countries from cultural and gender perspectives, as well as controversies regarding origins and treatments. S/U grading.

**Prerequisites & Notes:** previous course in psychology or instructor permission.

Credits: 4

Grade Mode: S/U

### **FAIR 343R - Death and Dying**

The implications of one's death for philosophy, culture, art, literature, aging, economics, psychology, medicine and living. Draws upon books, essays, films, field trips and personal experience. S/U grading.

Credits: 5

Grade Mode: S/U

### **FAIR 343U - Advanced Topics in Mind and Body**

An advanced examination of specific mind-body topics. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 201A

Credits: 3-5

Grade Mode: S/U

### **FAIR 344U - Cross-Cultural Psychology**

Introducing non-Western perspective of human behaviors. Culture's influences on human thinking, feeling, and action. Learning diversity in understanding societies and human beings. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** any psychology course

Credits: 4

Grade Mode: S/U

### **FAIR 349V - Art During Wartime**

This class will explore how various artists, composers and filmmakers have expressed enthusiasm and disdain for war and its injustices throughout history. We will discuss potential contemporary applications for art during wartime and create three art projects based upon reading and discussions. S/U grading.

**Prerequisites & Notes:** FAIR 202a or equivalent

Credits: 4

Grade Mode: S/U

### **FAIR 351W - Printmaking Narratives**

Exploration of and experimentation with advanced printmaking techniques emphasizing the four-color technique. Relief, intaglio, drypoint, woodcut collagraph and monotype illustrating personal narratives and themes. S/U grading.

**Prerequisites & Notes:** FAIR 254X or two design or two studio art courses.

Credits: 4

Grade Mode: S/U

### **FAIR 352V - Public Art**

Exploration of difference of public art from private or commercial art, how to determine success, and the larger social discourse on the role of art in society, through readings, research and creation of, or proposals for, public art works. S/U grading.

**Prerequisites & Notes:** FAIR 202A, Art Studio, Art History courses or instructor permission.

Credits: 4

Grade Mode: S/U

### **FAIR 352X - Doing Theatre**

A practical workshop for theatre artists, concentrating on intensive study of scenework for actors, but providing opportunity for directors, video artists and designers to practice their crafts in a setting which integrates all the arts of the theatre. S/U grading.

**Prerequisites & Notes:** previous work in theatre arts, TV or film, or instructor permission

Credits: 4

Grade Mode: S/U

### **FAIR 352Y - Visual Art Workshop**

Bi-weekly critiques, field trips to museums, galleries and local artists' studios, study of a contemporary artist, and participation in a group exhibition. S/U grading.

**Prerequisites & Notes:** Concurrent enrollment in a visual art independent study.

Credits: 2-5

Grade Mode: S/U

**FAIR 353V - Art in Public Sphere**

Explore history and concepts behind public art, create proposals and models for public art projects, and research artists who work within public space. S/U grading.

**Prerequisites & Notes:** Introduction to drawing and one of: FAIR 355Y, FAIR 359V, FAIR 355W or permission. Background in art history recommended.

Credits: 4

Grade Mode: S/U

**FAIR 353Y - Songwriting Workshop**

Examination of the elements of songwriting: discussing techniques, strategies and blocks; the roles and inter-relationships of melody, rhythm, and lyric; and song forms and styles. Through a series of exercises, development of a portfolio of songs. S/U grading.

Credits: 4

Grade Mode: S/U

**FAIR 354V - Scriptwriting Workshop I**

Practice in the art and craft of writing for the dramatic media: theater, film, television and radio. Intensive writing and rewriting experience with a supportive group of other writers. S/U grading.

**Prerequisites & Notes:** previous course work or experience with creative writing or instructor permission

Credits: 4

Grade Mode: S/U

**FAIR 355W - Installation Art**

Contemporary subjects will be addressed in three-dimensional spaces using combined mediums, such as video, audio, paintings, and found objects. S/U grading.

**Prerequisites & Notes:** 200-level or higher studio art class

Credits: 3-5

Grade Mode: S/U

**FAIR 355Y - Art and Social Activism**

We will explore the work of numerous contemporary artists who address social and political concerns with their art. We will look at how artists engage community and enrage the status quo, as well as strategies used to get a message out in the public realm. Will create art projects that address social concerns of students' choice. S/U grading.

**Prerequisites & Notes:** FAIR 202A or instructor permission.

Credits: 4

Grade Mode: S/U

**FAIR 356X - Dreams, Imagination and Creativity**

A study, through readings, discussion, experiences, of the content and interrelationships between dreams, imagination and creativity to enhance the intuitive dimension of daily life. Extending the range of imagination through practice: visualization techniques, artistic expression, journal writing. S/U grading.

**Prerequisites & Notes:** FAIR 203A or FAIR 243R or instructor permission.

Credits: 4

Grade Mode: S/U

**FAIR 357V - Topics in Studio Art II**

An interdisciplinary exploration of specific topics in studio art, including painting, printmaking, sculpture, and mixed media for students with some studio art background. Approaches may include historical, theoretical, literary, cultural, or political readings. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 202A and previous experience in studio art or permission of instructor.

Credits: 3-8

Grade Mode: S/U

**FAIR 357Y - Theatre/Film Production**

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An opportunity to work with intensive instruction on production of student-written dramas or films. Repeatable twice. S/U grading.

**Prerequisites & Notes:** previous work in theatre/film production or instructor permission  
Credits: 4  
Grade Mode: S/U

### **FAIR 358V - Art in the Environment**

Examination of historical and contemporary environmental art works. Development of site-specific individual and group projects that relate to social, political or personal issues. Working on various environmental issues through direct contact with community groups. Repeatable three times. S/U grading.

**Prerequisites & Notes:** Three studio art courses or instructor permission; ART 190 recommended.  
Credits: 4  
Grade Mode: S/U

### **FAIR 358W - Advanced Acrylic Painting**

Expanding on techniques, skills and ideas with a focus on development and repetition of themes within the work. S/U grading.

**Prerequisites & Notes:** FAIR 258W.  
Credits: 4  
Grade Mode: S/U

### **FAIR 361E - Race In/To the Movies II: Race Relations on Film: 1950-1980**

Explores race relations in America between 1950 and 1980, using film as one source of historical documentation. Films such as Raisin in the Sun, Twelve Angry Men and various 'Blaxploitation' movies will demonstrate how movies both reflect and reinforce contemporary perceptions on inter- and intra-race relations. Readings will place the films into a broader historical context. S/U grading.

**Prerequisites & Notes:** FAIR 261E or other film studies class.  
Credits: 4  
Grade Mode: S/U

### **FAIR 362F - We're Not for Sale: History of Asian Women in America**

Explores the history and experiences of Asian women in America from the mid-19th century to the present. S/U grading.

**Prerequisites & Notes:** FAIR 215F or AMST 205 or course in history of American women.  
Credits: 4  
Grade Mode: S/U

### **FAIR 363B - Suzie Wong to Miss Saigon: Asian Presence in Hollywood**

Explores the different perspectives of, and attitudes toward, Asian Americans and Asians in America from 1915 to the present, using film as a main source of historical documentation. S/U grading.

Credits: 4  
Grade Mode: S/U

### **FAIR 364C - El Movimiento Chicano**

Examines the sociohistorical, political and cultural characteristics of the Chicana/o Movement from 1848 to present. Formation and symbolic evolution of the United Farmworkers' Movement, the Chicana/o cultural renaissance of the '60s and '70s, the Chicana/o student movement for educational liberation and the roots of the Chicana/feminist and lesbian movements from the '70s through the '90s. S/U grading.

**Prerequisites & Notes:** FAIR 203A or FAIR 218C or AMST 203 or HIST 463.  
Credits: 4  
Grade Mode: S/U

### **FAIR 365C - Contemporary Voices of Latin American Resistance**

This course will look at the formative structure of Latin American leftist, political ideology by examining the writings of Theotonio Dos Santos, Paulo Freire, Che Guevara, Jose Marti and Antonio Gramsci. It will further focus on contemporary authors and the present course of Latin American politics by reflecting upon the political beliefs and perspectives of such authors as: Comandante Marcos, Elena Poniatowska, Eduardo Galeano, Hugo Chavez, Evo Morales, Luiz Ignacio Lula Da Silva and Michelle Bachelet. S/U grading.

**Prerequisites & Notes:** FAIR 203A or permission

of instructor.

Credits: 4

Grade Mode: S/U

**FAIR 366E - Comparative Cultural Studies**

Interaction of immigrant and indigenous cultures with the developing American cultural patterns. Emphasis on modes and concepts of interaction, especially related to African Americans, Native Americans, Asian Americans and Latinos. Also offered as AMST 301. S/U grading.

**Prerequisites & Notes:** Also offered as AMST 301

Credits: 4

Grade Mode: S/U

**FAIR 367B - Issues in Political Economy**

Upper division seminar in political economy. Course themes may include, but are not limited to: labor market stratification by race and gender; trade and globalization; human and political development; varieties of capitalism; and varieties of welfare states. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 203A or permission.

Credits: 3-6

Grade Mode: S/U

**FAIR 369C - Vietnam War Redux**

This course examines the war in Vietnam from 1962-1975 from the under/other side. It does not focus on whether or why the United States lost the war. Rather, it explores the tragic costs of the war from usually marginalized perspectives: Vietnamese fighters and civilians, American families, and women and minorities who served. S/U grading.

**Prerequisites & Notes:** FAIR 203A or instructor permission

Credits: 4

Grade Mode: S/U

**FAIR 369D - American War Stories: The Great War to Iraq**

This seminar presents an exploration of the major stories (literature, cinema, arts) and social movements produced by American wars since WWI. Rather than a traditional history of the wars aimed at discovering how and why someone lost

and why others won, the seminar examines the impacts war has had on American and opponents' veterans, families, arts and ideals. We will learn how war affects people at the individual and family level, how movements of support and resistance develop and what have been the wars' major influences on popular culture. S/U grading.

**Prerequisites & Notes:** FAIR 203A or permission of instructor.

Credits: 4

Grade Mode: S/U

**FAIR 370H - Audio Recording II**

Audio Recording Techniques II takes the concepts introduced in Fair 275h, Audio Recording Techniques I, and allows the student to apply and practice them in a 'hands-on' manner, with the goal of becoming familiar and competent in the use of all the gear in the Fairhaven Recording Studio. S/U grading.

**Prerequisites & Notes:** FAIR 270H or permission of instructor.

Credits: 4

Grade Mode: S/U

**FAIR 370P - Introduction to Pro Tools**

This course will introduce students to mixing and editing audio with Digidesign's Pro Tools LE software. S/U grading.

**Prerequisites & Notes:** FAIR 370H or permission of instructor.

Credits: 2

Grade Mode: S/U

**FAIR 370Q - Pro Tools HD Recording**

This class will give students with advanced recording experience the opportunity to record and mix on an industry standard Pro Tools HD system. Students will enhance their knowledge of Pro Tools and learn how to use the software in conjunction with a large-format analog mixing console. Repeatable up to 6 credits. S/U grading.

**Prerequisites & Notes:** FAIR 370P

Credits: 2

Grade Mode: S/U

**FAIR 370T - World Issues Group Study**

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As engaged citizens, what do we know and understand about global issues and ourselves in a world faced with the complex issues of growing economic disparities, fragile democracies, environmental degradation, wars, human rights, globalization, and ethnic/religious conflicts? What is our awareness of and participation in local and global efforts for peace and justice? Students in the class join campus and community members in the weekly World Issues Forum with guest speakers. As a class, students research, discuss and reflect on the forum topic and find ways to respond through social justice/service learning in the community. Repeatable up to 12 credits. S/U grading.

**Prerequisites & Notes:** FAIR 203A; or a social science GUR course.

Credits: 4

Grade Mode: S/U

### **FAIR 371B - Topics in Middle East Studies**

Seminar in Middle East studies. Course themes may include, but are not limited to, a survey of the history and political economy of the Modern Middle East; the colonial past and present in the Middle East; Orientalism; US policy toward the Middle East; State-society Relations in the Middle East; and case studies of specific countries and conflicts. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 203A or permission.

Credits: 3-6

Grade Mode: S/U

GUR Attributes: ACGM

### **FAIR 371E - Nations and Nationalism**

Survey course on the development of national identity since the late eighteenth century and the rise of the nation-state. Focus on the slippage between national and ethnic identities and the predicaments of stateless nations. Comparative case studies of various nationalisms in the United States, Europe, and the post-colonial world. S/U grading.

**Prerequisites & Notes:** FAIR 203A or permission.

Credits: 5

Grade Mode: S/U

### **FAIR 372F - Race and Society Within the Latino Caribbean**

The purpose of the course is to examine the past and present context of how race and cultural fusion have been experienced among peoples and nation states within the Latino Caribbean. Particular emphasis will be placed on the various ways in which racial/cultural identities are complicated by questions of gender, religion, politics, class and sexuality both in the Caribbean as well as those Latino-a Caribbean populations now residing in the United States. S/U grading.

**Prerequisites & Notes:** One of ANTH 101, ANTH 104, ANTH 201, FAIR 201a, FAIR 203a, AMST 203 or HIST 273.

Credits: 4

Grade Mode: S/U

### **FAIR 374B - The Cultural Creation of Identity**

How ethnic, racial and cultural identity is created by society. Includes a study of the social construction of identity from a scholarly perspective, but will also require the student to examine his or her own personal identity. S/U grading.

**Prerequisites & Notes:** FAIR 203A or instructor permission.

Credits: 5

Grade Mode: S/U

### **FAIR 375F - Digital Mixing**

S/U grading.

Credits: 2

Grade Mode: S/U

### **FAIR 375I - Space, Form and Mischief: the Artistic Impulse**

This course will investigate learning to appreciate open space, the unresolved question, the uncertain moment. By allowing things to be simply as they are, we are inspired to have confidence in our sense perceptions and potential as human beings to communicate and compose as nature does. This course includes exercises in movement, deep listening, observing natural and man-made environments, arrangements of objects in space, and collaborative poetic composition. S/U grading.

**Prerequisites & Notes:** Prereq: Junior or senior status, or permission of instructor.

Credits: 4

Grade Mode: S/U

**FAIR 375Z - Labor, Class Struggle, and Workers' Lives in the United States**

Exploration of the US labor history from the 1830s to post WWII era labor legislation. Effect of this history on current labor issues with a focus on the labor movement's impact on US politics, economics and society, as well as issues of race, ethnicity, class and gender, and immigration. S/U grading.

**Prerequisites & Notes:** FAIR 203A or equivalent; background in US history helpful.

Credits: 4

Grade Mode: S/U

**FAIR 377D - Whatcom Civil Rights Project**

Working in conjunction with the Whatcom Human Rights Task Force, the Whatcom Civil Rights Project (WCRP) provides pro bono legal assistance and advocacy to victims of discrimination. Gain the skills necessary to participate in WCRP by learning interviewing skills, how to write organized summaries of fact and law, and how to present cases orally. Major civil rights laws such as the Americans with Disability Act and Title VII of the Civil Rights Act of 1964 will be covered. S/U grading. S/U grading.

**Prerequisites & Notes:** FAIR 201A or any writing intensive course.

Credits: 3

Grade Mode: S/U

**FAIR 378E - Whatcom Civil Rights Practicum**

Staff a weekly shift of 9intake interviews for the Whatcom Civil Rights Project. Interview victims of civil rights discrimination, write a summary of the facts and law, and present the case orally to an attorney panel. Repeatable to a maximum of 15 cr. S/U grading.

**Prerequisites & Notes:** instructor permission

Credits: 2-5

Grade Mode: S/U

**FAIR 378F - Court Watch**

Observation of courts to learn judicial process and trends. Repeatable up to 15 credits. S/U grading.

**Prerequisites & Notes:** FAIR 203a or equivalent or instructor permission

Credits: 1-5

Grade Mode: S/U

**FAIR 381G - Topics in Literature**

An exploration of writers, periods, genres, theories or comparative studies which engage the student in the careful reading and critical discussion of literature, and in writing clearly about the works and issues involved. Repeatable with different topics. S/U grading.

Credits: 3-5

Grade Mode: S/U

**FAIR 384J - Writing Nature**

Workshop on creative nonfiction writing focusing on natural history, nature, wildness, environment, conservation, science, medicine, landscape or place. S/U grading.

**Prerequisites & Notes:** FAIR 201A or instructor permission.

Credits: 5

Grade Mode: S/U

**FAIR 386E - Topics in Humanities**

An interdisciplinary exploration of specific topics in the humanities, including history, philosophy, religion, literature, and mythology. Repeatable to a maximum of 15 credits with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 202A or equivalent

Credits: 4-5

Grade Mode: S/U

**FAIR 387K - Grant Writing Workshop**

Focuses on the basics of grant writing, including seeking funding sources, reading and interpreting funding guidelines, developing and refining proposals, and tricks of the trade. Development of, either individually or as a group, two small grant proposals. S/U grading.

Credits: 4

Grade Mode: S/U

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## **FAIR 388M - Oral History**

Study in methods for conducting, editing, and interpreting oral interviews. S/U grading.

**Prerequisites & Notes:** FAIR 223 or instructor permission  
Credits: 4  
Grade Mode: S/U

## **FAIR 391E - American Indian Resistances**

Examines Native American resistances to European colonization including historical background of military efforts and pan-Indian revitalization and messianic movements. S/U grading.

**Prerequisites & Notes:** FAIR 263B or FAIR 399B or AMST 202 or AMST 315, or course in Native American studies or instructor permission.  
Credits: 4  
Grade Mode: S/U

## **FAIR 393B - Rights, Liberties and Justice in America**

Study of American ideas of rights and liberties; what they mean in practice; competing principles and ideologies at work in the arena of constitutional rights; history of our justice system with regard to rights and liberties and directions it seems to be heading. S/U grading.

**Prerequisites & Notes:** upper-division courses in social science or history highly recommended  
Credits: 4  
Grade Mode: S/U

## **FAIR 399B - Contemporary American Indian Issues**

Presents timely issues in Indian-White relations. Emphasis on case studies of issues of sovereignty, land claims, treaty rights, cultural appropriation, economic development, health, education, and environment. Also offered as AMST 315. Repeatable with various topics. S/U grading.

**Prerequisites & Notes:** AMST 202 or FAIR 263 or HIST 275; or instructor permission. Also offered as AMST 315  
Credits: 4  
Grade Mode: S/U

## **FAIR 401A - Core: Senior Project**

Independent study required of students undertaking an Interdisciplinary Concentration. See the Fairhaven College Guidelines for Concentrations for more information. S/U grading.

Credits: 1-18  
Grade Mode: S/U

## **FAIR 403A - Core: Advanced Seminar**

Required of all Fairhaven College students. A forum in which students are required to reflect on, summarize and evaluate their major or concentration programs and to consider their education in relation to the world they are entering. Course must be taken in final quarter before graduation. S/U grading.

**Prerequisites & Notes:** Required by all Fairhaven students. Senior status.  
Credits: 4  
Grade Mode: S/U

## **FAIR 412E - Advanced Topics in Law**

Investigation of an area of the law using a law school class format and text. Examples of topics include Federal Indian Law II, Property Law, Current Issues in the U.S. Supreme Court, and critical legal studies. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 311B or PLSC 311 or permission of instructor.  
Credits: 2-5  
Grade Mode: S/U

## **FAIR 412V - The Art of the Other**

This class will explore the work of contemporary artists from Asia, Africa, the Middle East, as well as the Americas, focusing primarily on artists addressing and commenting upon concerns such as globalization, politics, and post-colonialism. S/U grading.

**Prerequisites & Notes:** One 300 level studio art course plus one of the following: FAIR 215F, FAIR 218C, FAIR 219D, FAIR 263B or equivalent.  
Credits: 4  
Grade Mode: S/U

## **FAIR 413A - International Childhood**

An examination of a wide range of children's experiences around the world, including a cultural analysis of middle-class American childhood, to unpack constricted, culture-bound conceptions of childhood and to illustrate the diverse forms of children's development and societal roles.

**Prerequisites & Notes:** INTL 201 or FAIR 203A  
Credits: 4  
Grade Mode: S/U

**FAIR 413E - Curers, Clients and Culture: Cross Cultural Perspectives on Health and Illness**

Examines health belief systems in cross-cultural perspective, including the roles of practitioner and patient; explanation, diagnosis and treatment of disease; the impact of modernization on non-Western medical systems, and ethnicity and health care in the U.S. S/U grading.

**Prerequisites & Notes:** cross-cultural study or instructor permission  
Credits: 5  
Grade Mode: S/U

**FAIR 414B - Vietnam on Film**

Exploration of the cinematic interpretations of the Southeast Asian war as a process of rationalizing and renegotiating American interests and history to suit contemporary political and cultural purposes. S/U grading.

**Prerequisites & Notes:** FAIR 369C or HIST 104 or evidence of familiarity with the Vietnam War or instructor permission.  
Credits: 4  
Grade Mode: S/U

**FAIR 414D - Special Topics in Social Justice Education**

Specific issues in social justice education will be used as lenses for analyzing, evaluating and transforming interlocking systems of power, privilege, oppression and discriminatory institutional structures and cultural practices and social behavior. Also offered as EDUC 414.

**Prerequisites & Notes:** AMST 301 or FAIR 366E; FAIR 314E; and EDUC 411.

Credits: 4  
Grade Mode: S/U

**FAIR 419F - Cross-Cultural Shamanism**

Cross-cultural comparison of the roles, recruitment, techniques and performances of shamans, those ceremonial practitioners who move in a state of ecstasy between various spiritual realms. The relationships between healing, magic, sorcery and alternative states of consciousness in cultural context. S/U grading.

**Prerequisites & Notes:** FAIR 203A and either ANTH 201 or a course in cross-cultural studies, or instructor permission.  
Credits: 5  
Grade Mode: S/U

**FAIR 421H - Advanced Topics in Literature**

In-depth consideration of a small number of works, with theoretical or comparative analysis and intensive work with critical discussion and writing. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** 300-level course work in literature  
Credits: 3-5  
Grade Mode: S/U

**FAIR 422J - Art of the Essay**

An advanced course in the art of writing essays. Repeatable to a maximum of 12 cr. S/U grading.

**Prerequisites & Notes:** FAIR 201A and FAIR 202A, and 300-level writing course.  
Credits: 4  
Grade Mode: S/U

**FAIR 422K - Advanced Legal Writing and Analysis**

Explores persuasive legal writing, researching and writing an appellate brief on a current legal issue. S/U grading.

**Prerequisites & Notes:** FAIR 311B or PLSC 311 or permission of instructor.  
Credits: 4  
Grade Mode: S/U

**FAIR 423K - Space, Place and Imagination**



## FAIRHAVEN COLLEGE OF INTERDISCIPLINARY STUDIES

An advanced exploration of the relationship between who we are and where we are, between self and place, imagination and landscape. S/U grading.

**Prerequisites & Notes:** 300-level Humanities course.

Credits: 5

Grade Mode: S/U

### **FAIR 432Q - Ecological Restoration**

Introduces students to the science and practice of restoring ecological integrity and health to natural landscapes. The approach of the course will be philosophical as well as empirical. This course is repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 206A or equivalent, a course in biology or ecology, and upper level standing, or instructor's permission.

Credits: 5

Grade Mode: S/U

### **FAIR 433P - Advanced Topics in Evolutionary Biology**

Explores advanced and specific topics in evolutionary theory, the history of evolutionary thought, and/or the application of biological evolution to the modern human experience. Repeatable with different topics to a maximum of 8 credits. S/U grading.

**Prerequisites & Notes:** FAIR 206A and 300 level course in evolution.

Credits: 1-8

Grade Mode: S/U

### **FAIR 434P - Advanced Studies in Field Science**

In-depth quantitative field study, including study design, data collection and analysis, and the writing of a scientific paper to report the findings. Repeatable with various topics. S/U grading.

**Prerequisites & Notes:** FAIR 206A, or equivalent, or instructor permission.

Credits: 5-8

Grade Mode: S/U

### **FAIR 435Q - Advanced Marine Bird Population Ecology**

Participation in all aspects of an ongoing study of Northwestern Washington marine bird populations, including study design, field work, data analysis, and scientific writing. Repeatable to a maximum of 30 cr. S/U grading.

**Prerequisites & Notes:** FAIR 434P or instructor permission.

Credits: 2-15

Grade Mode: S/U

### **FAIR 436B - Advanced Topics in Social Issues**

An advanced examination of specific topics in the social sciences. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 203A; 300-level social science course or equivalent

Credits: 4-8

Grade Mode: S/U

### **FAIR 436N - Advanced Topics in Science**

An advanced examination of specific topics in science. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 206A; 300-level science course or equivalent

Credits: 4-8

Grade Mode: S/U

### **FAIR 436V - Advanced Topics in Art**

An advanced examination of specific topics in the arts. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 202A; 300-level art course

Credits: 4-8

Grade Mode: S/U

### **FAIR 440N - Ethnoecology: Conservation and Development**

Exploration of the role of traditional ecological knowledge in maintaining and restoring healthy ecological relationships between communities and the environment. Taught every other year. S/U grading.

**Prerequisites & Notes:** FAIR 206A or equivalent or permission of instructor.

Credits: 3  
Grade Mode: S/U

**FAIR 441U - The Relational Self: Theories and Research**

Study of new paradigms of the self, including revisions of familiar concepts of identity, self-knowledge and self-esteem. S/U grading.

**Prerequisites & Notes:** previous courses in psychology or instructor permission  
Credits: 4  
Grade Mode: S/U

**FAIR 444U - Depression: Causes, Cultures and Treatments**

An examination of biochemical, clinical and cultural explanations for depression and questions regarding why depression is becoming so widespread. Issues will include the increase of depression symptoms worldwide, gender differences in depression and specific treatments. S/U grading.

**Prerequisites & Notes:** previous psychology courses or instructor permission  
Credits: 4  
Grade Mode: S/U

**FAIR 448T - Risk and Resilience in Adolescent Girls: Development, Culture and Identity**

A consideration of latest literature on female adolescent development, including diversity. S/U grading.

**Prerequisites & Notes:** Previous courses in psychology or women studies.  
Credits: 5  
Grade Mode: S/U

**FAIR 451X - Resistance Art of the Indigena**

Examines contemporary visual and literary arts of indigenous peoples of Canada and the United States. Emphasis on artwork that reflects personal and cultural histories, government and state relations, and Western misrepresentation of Native peoples in the media and academia. S/U grading.

**Prerequisites & Notes:** FAIR 218C or AMST 202 or FAIR 399B or AMST 315; studio art courses or experience above the 200-level

Credits: 4  
Grade Mode: S/U

**FAIR 452W - Thematic Life Drawing**

Exploration of advanced drawing techniques and development of personal themes based on understanding of current art trends and philosophies. S/U grading.

**Prerequisites & Notes:** Intermediate drawing course required (i.e. ART 203, ART 301, ART 304); art history and FAIR 351W highly recommended.  
Credits: 4  
Grade Mode: S/U

**FAIR 453V - New Media Workshop**

Use of software, video, sound recording, etc., to create art projects. Discussion of issues and ideas related to new media and study of artists. S/U grading.

**Prerequisites & Notes:** FAIR 359v, FAIR 355y, or FAIR 355w or instructor permission.  
Credits: 4  
Grade Mode: S/U

**FAIR 454Y - Scriptwriting Workshop II**

Advanced practice in the art and craft of writing for dramatic media: theatre, film, television, radio. Emphasis on sharpening forms and styles, and on preparing scripts for production. Repeatable to a maximum of 12 cr. S/U grading.

**Prerequisites & Notes:** FAIR 354V; previous 200-level work in scriptwriting any medium, or instructor permission.  
Credits: 4  
Grade Mode: S/U

**FAIR 455V - Advanced Printmaking**

Advanced printmaking techniques illustrating various themes developed by students in consultation with instructor, with an emphasis on technique and aesthetics. S/U grading.

**Prerequisites & Notes:** FAIR 254X, FAIR 351W.  
Credits: 4  
Grade Mode: S/U

**FAIR 457V - Advanced Topics in Studio Art**

## FAIRHAVEN COLLEGE OF INTERDISCIPLINARY STUDIES

An advanced exploration of specific topics in studio art, including painting, printmaking, sculpture, and mixed media for students with some studio art background. Approaches may include historical, theoretical, literary, cultural, or political readings. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 202A and upper-division coursework in studio art or permission of instructor.

Credits: 3-8

Grade Mode: S/U

### **FAIR 457W - Advanced Theatre/Film Production**

An opportunity to hone advanced production skills in theatre/film in an intense and supportive learning environment. Repeatable twice. S/U grading.

**Prerequisites & Notes:** instructor permission

Credits: 4

Grade Mode: S/U

### **FAIR 464D - Advanced Topics in American Indian Studies**

This seminar presents an interdisciplinary examination of a major topic in Indian/White relations such as gaming, treaty rights, sovereignty, or education. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** Permission of instructor.

Credits: 4

Grade Mode: S/U

### **FAIR 475A - Integrative Seminar: Oral Advocacy**

S/U grading.

Credits: 5

Grade Mode: S/U

### **FAIR 475B - Integrative Seminar: Legal Profession**

S/U grading.

Credits: 4

Grade Mode: S/U

### **FAIR 475C - Integrative Seminar: Japanese Internm**

S/U grading.

Credits: 5

Grade Mode: S/U

### **FAIR 480 - Internship**

By arrangement: fall, winter and spring. Fairhaven College independent study permit card required for registration. Practicum in an area related to one's course of study; addresses specific roles or responsibilities. S/U grading.

**Prerequisites & Notes:** approval of two or more Fairhaven faculty

Credits: 1-15

Grade Mode: S/U

### **FAIR 486E - Advanced Topics in the Humanities**

An advanced examination of specific topics in the humanities. Repeatable with different topics. S/U grading.

**Prerequisites & Notes:** FAIR 202A or equivalent; 300-level humanities course

Credits: 4-8

Grade Mode: S/U

### **FAIR 490A - Good Teaching: Power of Art and Community**

This course is offered in conjunction with the annual Northwest Teacher's Conference. See <http://www.nwteachersconference.org/> for details about registering for the Conference. The specific workshops vary from year to year, but through pre-reading activities, daily workshops and reflective writing, students will explore questions related to the challenge of sustaining good teaching practices amid increasing pressures to standardize curriculum, classrooms, and children's needs. We will envision learning environments where finding meaning matters and where the creative process is valued as a learning strategy. We will identify personal and community resources needed to broaden and/or transform teaching practices.

Credits: 2

Grade Mode: S/U

**FAIR 499A - Human Rights, World Visions**

The scope and history of human rights through film and readings, to broaden understanding of human rights and how they impact us as both local and world citizens. S/U grading.

**Prerequisites & Notes:** FAIR 203A or equivalent or instructor permission.

Credits: 4

Grade Mode: S/U

**FAIR 499B - Special Problems in Interdisciplinary Studies**

Investigation of problems and issues through advanced interdisciplinary study. Repeatable with various topics. Topics will be listed in the Fairhaven College Quarterly Class Description booklet as they are offered. S/U grading.

**Prerequisites & Notes:** upper-division status or instructor permission

Credits: 10-15

Grade Mode: S/U

# Huxley College of the Environment

## Introduction

*Dr. Steven J. Hollenhorst, Dean*

Huxley College of the Environment is one of seven colleges constituting Western Washington University, consistently recognized as one of the outstanding public institutions of higher education in the West. Huxley College offers a gathering place for individuals genuinely concerned with the environmental well-being of the earth. Our approach is holistic and deliberately innovative, designed to prepare students for creative, fulfilling professional careers in a changing world. Since its establishment in 1968, Huxley College has won national and international recognition, thanks to its comprehensive upper-division and graduate programs — continually refined and enriched to enhance practical, interdisciplinary approaches to environmental problem-solving.

Students, now numbering more than 450, pursue specialization in their chosen fields, plus breadth to provide a broad base of knowledge and perspective. Students enter Huxley College with a foundation in science and social science. A unique component of Huxley College is the interdisciplinary requirement that Environmental Science students take courses in Environmental Studies and Environmental Studies students take courses in Environmental Sciences. In addition they are encouraged to design independent programs within Huxley College and cooperative programs with other departments of the University. Faculty and staff are readily available to collaborate with student initiatives in learning. In addition to their classroom work, students participate in internships and may serve with faculty and staff on college committees. Students publish the quarterly award-winning *Planet* magazine.

Faculty specialties include science, social science, engineering, planning, geography and humanities. Thus, courses embrace natural and physical sciences, human ecology and ethics, history and resource policy, writing and photography, utilizing new technologies and computers.

Most Huxley College classrooms, offices and laboratories are in the Environmental Studies building and adjacent Arntzen Hall. Huxley College also houses the Institute of Environmental Toxicology (for research on risk assessment and effects of toxic substances) and the Institute for Watershed Studios (with specialized equipment for freshwater and limnological studies), as well as the Huxley Resilience Institute and Huxley Spatial Institute (which includes state of the art computer teaching and research labs for GIS and Remote Sensing).

### *Mission*

Huxley College of the Environment addresses today's environmental issues and prepares tomorrow's interdisciplinary problem solvers. We accomplish this mission by integrating outstanding educational programs, faculty-student collaboration, applied research, and professional and community service.

### *Vision*

Huxley College of the Environment is a premier institution for the education of future environmental experts and leaders.

## Academic Programs Leading to Undergraduate and Graduate Degrees

Business and Sustainability	BA
Economics/Environmental Studies	BA
Environmental Education	BA, MED
Environmental Policy	BA
Environmental Science	BS, MS
Environmental Studies	BA
Environmental Studies/Elementary	BAE
Environmental Studies/Journalism (In Moratorium)	BA

Geography	BA, MS
Geography/Elementary	BAE
Geography/Social Studies	BA
Student/Faculty Design	BA, BS
Urban Planning and Sustainable Development	BA

## College Admission and Advisement

### *Admissions and Declaration of Major*

- Completion of required preparatory course work
- Academic performance (GPA)
- A brief essay in response to a given question
- Applicants in Urban Planning must provide a portfolio

Applications should be received by the Huxley College office (ES 539) by:

- April 25 for admission to summer or fall quarters
- October 6 for admission winter quarter
- January 15 for admission spring quarter.

## Student/Faculty Designed, BA or BS, (Huxley College of the Environment)

Students who wish to design their own majors within Huxley College should obtain complete guidelines from the Undergraduate Advisors located in ES 539, the Huxley College office. The major must be developed with faculty advisement and must be approved by two faculty members and the Huxley College Curriculum Committee at least four quarters before the student's anticipated graduation.

## Department Chairs

Dr. John M. Rybczyk

Environmental Sciences

Dr. Michael J. Medler

Environmental Studies

## Other College Information

### *Departments, Courses and Programs*

Courses listed in this catalog constitute a record of the total academic program of the University. For an exact scheduling of courses at Western, students should consult the annual online Timetable of Classes, Class Finder and Extended Education bulletins.

## Bachelor of Arts

### Student/Faculty Designed, BA (Huxley College of the Environment)

#### **Introduction/What is the Study of Student/Faculty Designed?**

Students who wish to design their own majors within Huxley College should obtain complete guidelines from the Undergraduate Advisors located in ES 539, the Huxley College office. The major must be developed with faculty advisement and must be approved by two faculty members and the Huxley College Curriculum Committee at least four quarters before the student's anticipated graduation.

## Why Consider a Huxley College of the Environment Student/Faculty Designed Major?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Bachelor of Science

### Student/Faculty Designed, BS (Huxley College of the Environment)

#### Introduction/What is the Study of Student/Faculty Designed?

Students who wish to design their own majors within Huxley College should obtain complete guidelines from the Undergraduate Advisors located in ES 539, the Huxley College office. The major must be developed with faculty advisement and must be approved by two faculty members and the Huxley College Curriculum Committee at least four quarters before the student's anticipated graduation.

## Why Consider a Huxley College of the Environment Student/Faculty Designed Major?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

# Environmental Sciences

## Introduction

*Chair: John M. Rybczyk*

Environmental science draws on basic knowledge of the physical, chemical, biological and quantitative aspects of natural systems. The knowledge of how natural systems work is applied to solving problems largely created by human activities. Often these problems are represented by disturbances in the functioning of natural systems. Humans are altering their own life-support systems — the air, the water and the soil. Scales of disturbance range from the molecular and cellular to individuals, populations, ecosystems, and regional and global levels.

Graduates in environmental science enter a wide variety of career paths in local, state and federal governments, universities, and the private sector. Fields include environmental toxicology, environmental chemistry, terrestrial ecology, environmental impact assessment, watershed studies, air pollution control, solid and hazardous waste management, and marine pollution assessment. Many graduates choose to pursue advanced studies.

### *Faculty*

The interdisciplinary nature of environmental science is reflected in the wide-ranging expertise of the environmental science faculty. Oceanographers, toxicologists, chemists, biologists, limnologists, terrestrial ecologists and others work together as an interdisciplinary team to offer a curriculum grounded in the sciences, but oriented to the understanding and solution of environmental problems. Active engagement in research allows the faculty to bring an analysis of new knowledge into the classroom.

### *Facilities and Equipment*

Facilities are available for teaching laboratory courses and for student research projects. Students gain practical hands-on experience in data collection and analysis in both laboratory and field settings including terrestrial, aquatic, estuarine and marine environments. Specialized equipment is available for a wide variety of applications including toxicological and water quality monitoring (in a state-certified lab), atmospheric chemistry, dendrochronology, global positioning systems, wildlife telemetry, and forest and aquatic habitat characterization. Instrumentation includes an autoanalyzer for phosphorous, carbon and nitrogen, a gamma ray detector for sediment dating and a remotely operated vehicle (ROV) equipped with a camera for underwater viewing of the marine environment. Extensive computer facilities include a Geographic Information Systems and Remote Sensing laboratory with state-of-the-art capabilities.

The Shannon Point Marine Center offers access to aquaria and a wide variety of laboratory and field sampling equipment for students interested in the marine environment.

The Canyon Lake Creek Community Forest provides access to 2,300 acres in the foothills of Mt. Baker.

In addition to these university owned facilities, our location provides unparalleled access to public lands that cover a range of environments including the alpine zone, dense old-growth forests, wetlands, lakes, streams, estuaries and the coast.

## Faculty

**JOHN M. RYBCZYK (2000)** Chair and Professor. BS (wildlife biology), Michigan State University; MS (ecosystem biology), Eastern Michigan University; PhD (oceanography and coastal science), Louisiana State University.

**BRIAN L. BINGHAM (1995)** Professor. BS (zoology), MS (zoology), Brigham Young University; PhD (biology), Florida State University.

**LEO R. BODENSTEINER (1995)** Professor. BA (biology), Moorhead State University; MA (zoology), PhD (zoology), Southern Illinois University-Carbondale.

**ANDREW G. BUNN (2006)** Associate Professor and Director, Institute for Energy Studies. BS (zoology) The



## ENVIRONMENTAL SCIENCES

Evergreen State College; MEM (resource ecology) Duke University; PhD (environmental science), Montana State University-Bozeman.

**REBECCA BUNN** (2010) Assistant Professor. BS, (civil engineering), Michigan Technology Institute; MS, (environmental engineering) University of Colorado; PhD (land resources and environmental science), Montana State University.

**JAMES M. HELFIELD** (2005) Associate Professor. BA (English), Duke University; MSc (physical geography), University of Toronto; PhD (forest ecology), University of Washington.

**STEVEN J. HOLLENHORST** (2012) Professor and Dean, Huxley College of the Environment. BS, MS (recreation and park management), University of Oregon; PhD (recreation and park management), The Ohio State University.

**PETER S. HOMANN** (1996) Professor. BA (natural sciences) and BS (chemistry), Case Western Reserve University; MS (forest ecology), Yale School of Forestry and Environmental Studies; PhD (forest soils, nutrient cycling), University of Washington.

**WAYNE G. LANDIS** (1989) Professor and Director, Institute of Environmental Toxicology and Chemistry. BA (biology), Wake Forest University; MA (biology) and PhD (zoology), Indiana University.

**BROOKE A. LOVE** (2012) Assistant Professor, BS (engineering geology) Stanford University, PhD (chemical oceanography) University of Washington.

**ROBIN A. MATTHEWS** (1986) Professor and Director, Institute for Watershed Studies. BS (biology), University of California-Riverside; MS (environmental studies), Indiana University; PhD (botany/aquatic ecology), Virginia Polytechnic Institute and State University.

**JOHN F. McLAUGHLIN** (1996) Associate Professor. BA (biological sciences), BA (biochemistry), BA (integrated science program), Northwestern University; MS (biological sciences) and PhD (biological sciences, population biology), Stanford University.

**DAVID H. SHULL** (2003) Associate Professor. BS (oceanography), University of Washington; MS (oceanography), University of Connecticut; PhD (environmental, coastal and ocean sciences), University of Massachusetts.

**RUTH M. SOFIELD** (2003) Associate Professor. BA, West Virginia University; MS, McNeese State University; PhD (environmental science and engineering), Colorado School of Mines.

**DAVID O. WALLIN** (1995) Professor. BS (biology), Juniata College; MA (biology), The College of William and Mary; PhD (environmental science), University of Virginia.

### *Emeritus Faculty*

**JOHN T. (JACK) HARDY** Professor Emeritus of Environmental Sciences. BA, University of California-Santa Barbara; MA, Oregon State University; PhD, University of Washington

**J. RICHARD MAYER** Professor Emeritus of Environmental Science. BS, Union College; MA, Columbia University; PhD, Yale University.

**ROBERT L. MONAHAN** Professor Emeritus of Geography and Environmental Social Sciences. BA, University of Washington; MA, University of Michigan; PhD, McGill University.

**LYNN A. ROBBINS** Professor Emeritus of Environmental Studies. BA, University of Utah; MA, PhD, University of Oregon.

**BRADLEY F. SMITH** (1994) Professor Emeritus of Huxley College of the Environment. BA, MA, Western Michigan University; PhD, University of Michigan.

**WILLIAM C. SUMMERS** Professor Emeritus of Environmental Science. BS, ME, PhD, University of Minnesota.

**THOMAS A. TERICH** Professor Emeritus of Geography. BA and MA, California State University, Los Angeles; PhD, Oregon State University.

**HERBERT H. WEBBER** Professor Emeritus of Geography and Environmental Social Sciences. BSc, PhD, University of British Columbia.

**MING-HO YU** Professor Emeritus of Huxley College. BS, National Taiwan University; MS, PhD, Utah State University.

**Adjunct Faculty**

**JAMES D. ALLAWAY**, PhD (natural resources, policy, and planning), Cornell University.

**PAUL DINNELL**, Marine Scientist, Shannon Point Marine Center. PhD (fisheries), University of Washington.

**STEFAN FREELAN**, MS (geography), Western Washington University.

**JERRY FREILICH**, Research and Monitoring Coordinator, Olympic National Park, PhD (aquatic ecology), University of Georgia.

**REBEKAH GREEN**, PhD (structural engineering), Cornell University.

**APRIL MARKIEWICZ**, MS (environmental science), Western Washington University.

**BRADY OLSON**, Marine Scientist, Shannon Point Marine Center. PhD (biological oceanography), University of Washington.

**JENNIFER SELTZ**, PhD (history), University of Washington.

**MICHAEL G. STONER**, Environmental Manager, Port of Bellingham. MS (forest soils), University of Washington.

**SUZANNE STROM**, Marine Scientist, Shannon Point Marine Center. PhD (biological oceanography), University of Washington.

**KATHRYN L. VAN ALSTYNE**, Marine Scientist, Shannon Point Marine Center. PhD (marine ecology), University of Washington.

**SETH VIDANA**, WWU Sustainability Coordinator. MEd (environmental education), Western Washington University.

**SAUL WEISBERG**, Executive Director, North Cascades Institute. MS (biology), Western Washington University.

**Affiliated Faculty**

**JOHN BOWER**, Associate Professor, Fairhaven College

**DON BURGESS**, Assistant Professor, SMATE

**CRAIG DUNN**, Associate Professor, Management, CBE

**DAN HAGEN**, Professor, Economics, CBE

**JILL HECKATHORN**, Senior Instructor, PE

**VICTOR NOLET**, Professor, Woodring College of Education

**ARUNAS OSLAPAS**, Professor, Engineering Technology

**DEBRA J. SALAZAR**, Professor, Department of Political Science

**DAVID SATTLER**, Professor, Department of Psychology

**STEPHEN D. SULKIN**, Professor and Director, Shannon Point

**PHIL THOMPSON**, Assistant Professor, Economics, CBE

**JOHN TUXILL**, Assistant Professor, Fairhaven College

## Bachelor of Science

### Environmental Science Extension Major, BS

Department of Environmental Science, Huxley College of the Environment

#### 132-137 credits (preparatory courses and major)

#### Introduction/What is the Study of Environmental Science?

Students wishing to complete an Environmental Science major in four years should complete the general chemistry series during their freshman year and the general biology series during their sophomore year.

Prospective environmental science majors are strongly advised to take additional preparatory courses that provide a strong background in chemistry, biology and mathematics. The preparatory courses are listed with the major, where approved as GUR courses in the catalog, may be used to fulfill both Huxley College and

## ENVIRONMENTAL SCIENCES

GUR requirements. All preparatory courses required for admission should be completed on a lettered or numeric grading scale, not P/NP, and must be completed with a grade of C- or better. This Environmental Science major is offered at off-site locations. Exact locations are listed in the Extended Education section of this catalog.

### Why Consider an Environmental Science Extension Major?

#### Contact Information

##### Department Chair

John Rybczyk  
Environmental Studies 336  
360-650-2081  
John.Rybczyk@wwu.edu

##### Huxley College Admissions Advisor

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

#### Sample Careers

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

If you are interested in the Environmental Science (Extension), BS major, you must first complete either: a Direct Transfer Agreement (DTA) Associate Degree or the equivalent to Western Washington University's General University Requirements. You can decide to become an Environmental Science major at any time. It is advantageous to plan for your major during your freshman or sophomore year, as prerequisite classes can be a part of earning your DTA. Contact the program manager (see below) to develop a plan for completing the prerequisite courses while earning your DTA. Your email can be added to the 'interested students' distribution list for Huxley College on the Peninsulas and you will begin to receive notifications, general announcements, and information about jobs, internships, or research opportunities.

Important information about admission to the ESCI major:

Admission is a competitive process and requires the coursework above and a satisfactory GPA in all coursework. You must then submit two applications: the Extension Undergraduate Program at <http://admissions.wwu.edu/print/EESPEExtensionUGApp.pdf> and a Huxley on the Peninsulas application that lists relevant experience and includes a 1-2 page essay describing your reasons for wanting to enter into the Environmental Science Extension major. Applications are obtained from the program manager and accepted in the spring for fall admittance.

If you have any questions, please contact Nancy Bluestein-Johnson, program manager, by phone (360-417-6521) or [Nancy.Bluestein-Johnson@wwu.edu](mailto:Nancy.Bluestein-Johnson@wwu.edu)

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

##### Preparatory Courses (47-52 credits)

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III

- ECON 206 - Introduction to Microeconomics
- MATH 124 - Calculus and Analytic Geometry I
- One course from:
  - ENVS 203 - Physical Geography
  - GEOL 211 - Physical Geology
  - Any BCOM or CCOM GUR requirement course
  - Any PLSC course

## Major (85 credits)

- ESCI 340 - Biostatistical Analysis
- ESCI 493 - Environmental Impact Assessment
- ENVS 304 - Environment and Resource Policy
- ENVS 305 - Environmental History and Ethics
- Choose either:
  - CHEM 251 - Elementary Organic Chemistry  
or the following series:
  - CHEM 351 - Organic Chemistry
  - CHEM 352 - Organic Chemistry
  - CHEM 354 - Organic Chemistry Laboratory I
- One course from:
  - ESCI 321 - Oceanography
  - ESCI 435 - Landscape Ecology
  - ESCI 492 - Climate Change
  - ENVS 325 - Geography of Landforms
  - ENVS 326 - Climatology
  - ESCI 325 - Fundamentals of Ecology
  - BIOL 325 - Ecology
- One course from (minimum of 10 credits):
  - ESCI 498A - Senior Thesis
  - ESCI 498B - Internship
  - ESCI 498C - Senior Project
- Two lecture/lab courses or combination of courses from:
  - ESCI 321 - Oceanography AND
  - ESCI 322 - Oceanography Laboratory
  - ESCI 328 - Introduction to Ecosystem Management
  - ESCI 361 - Water Quality AND
  - ESCI 362 - Water Quality Lab
  - ESCI 407 - Forest Ecology
  - ESCI 429 - Stream Ecology
- Electives under advisement (28-37 credits)
  - A minimum of 20 credits from:
    - ESCI 300- or 400-level
  - Additional electives, if needed from:
    - BIOL 300- or 400-level
    - CHEM 300- or 400-level
    - ENVS 300- or 400-level
    - ESCI 300- or 400-level
  - EXT 370 - Principles and Practices of Emergency Management
  - EXT 371 - Practical Applications of Emergency Management

## ENVIRONMENTAL SCIENCES

- EXT 372 - Law and Policy of Emergency Management  
GEOL 300- or 400-level
- MATH 125 - Calculus and Analytic Geometry II
- MATH 203 - Linear Algebra and Differential Equations I
- MATH 204 - Elementary Linear Algebra
- MATH 205 - Linear Algebra Workshop
- MATH 307 - Mathematical Computing
- MATH 309 - Introduction to Proof in Discrete Mathematics
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 225 - Multivariable Calculus and Geometry II
- MATH 226 - Limits and Infinite Series  
MATH 300- or 400-level

Maximum 3 courses allowed from:

- PHYS 114 - Principles of Physics I
- PHYS 115 - Principles of Physics II
- PHYS 116 - Principles of Physics III
- PHYS 161 - Physics with Calculus I
- PHYS 226 - Physics with Calculus IV  
PHYS 300- or 400-level

### **Environmental Science — Freshwater Ecology Emphasis, BS**

Department of Environmental Science, Huxley College of the Environment

#### **132-137 credits**

#### **Introduction/What is the Study of Environmental Science?**

Students wishing to complete an Environmental Science major in four years should complete the general chemistry series during their freshman year and the general biology series during their sophomore year. Prospective environmental science majors are strongly advised to take additional preparatory courses that provide a strong background in chemistry, biology and mathematics. The preparatory courses are listed with the major, where approved as GUR courses in the catalog, may be used to fulfill both Huxley College and GUR requirements. All preparatory courses required for admission should be completed on a lettered or numeric grading scale, not P/NP, and must be completed with a grade of C- or better.

#### **Why Consider a Freshwater Ecology Emphasis in Environmental Science Major?**

##### Contact Information

###### **Department Chair**

John Rybczyk  
Environmental Studies 336  
360-650-2081  
John.Rybczyk@wwu.edu

###### **Huxley College Admissions Advisor**

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

##### Sample Careers

##### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):****Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

## Preparatory Courses (47-52 credits)

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- ECON 206 - Introduction to Microeconomics
- MATH 124 - Calculus and Analytic Geometry I
- One course from:
  - ENVS 203 - Physical Geography
  - GEOL 211 - Physical Geology
  - Any BCOM or CCOM GUR requirement course
  - Any PLSC course

## Major (85 credits)

- Choose either:
  - CHEM 251 - Elementary Organic Chemistry or the following series:
    - CHEM 351 - Organic Chemistry
    - CHEM 352 - Organic Chemistry
    - CHEM 354 - Organic Chemistry Laboratory I
  - One course from:
    - ESCI 321 - Oceanography
    - ESCI 435 - Landscape Ecology
    - ESCI 492 - Climate Change
    - ENVS 325 - Geography of Landforms
    - ENVS 326 - Climatology
  - One course from:
    - ESCI 325 - Fundamentals of Ecology
    - BIOL 325 - Ecology
  - One course from:
    - ESCI 340 - Biostatistical Analysis
    - BIOL 340 - Biometrics
  - One course from:
    - ESCI 470 - Ecological Restoration
    - ESCI 490 - Environmental Risk Assessment
    - ESCI 491 - Oceanography of Puget Sound
    - ESCI 493 - Environmental Impact Assessment
    - ENVS 410 - Agroecology and Sustainable Agriculture

## ENVIRONMENTAL SCIENCES

- ENVS 430 - Borderlands
- ENVS 474 - Planning for Sustainable Communities
- ENVS 493 - Environmental Impact Assessment
- ENVS 496 - Environmental Stewardship
- One course from: (minimum of 10 credits; maximum of 15 credits)
  - ESCI 498A - Senior Thesis
  - ESCI 498B - Internship
  - ESCI 498C - Senior Project
  - ESCI 498D - International Study
- One course from two of the following categories:
  - Human Ecology, Geography:
    - ENVS 303 - Human Ecology and Sustainability
    - ENVS 341 - Population and Resources
    - ENVS 343 - Urbanization: Processes and Patterns
  - Environmental Policy:
    - ENVS 304 - Environment and Resource Policy
    - ENVS 316 - Explorations in Environmental Studies
  - Environmental History, Philosophy, Ethics:
    - ENVS 305 - Environmental History and Ethics
    - ENVS 481 - History of Conservation in America
- Two lecture/lab courses or combination of courses from:
  - ESCI 321 - Oceanography AND
  - ESCI 322 - Oceanography Laboratory
  - ESCI 361 - Water Quality AND
  - ESCI 362 - Water Quality Lab
  - ESCI 407 - Forest Ecology
  - ESCI 408 - Field Methods in Wildlife Ecology
  - ESCI 410 - Forest-Fish Interactions AND
  - ESCI 411 - Forest and Fish Assessment
  - ESCI 421 - Fisheries Management Lab AND
  - ESCI 425 - Environmental Biology of Fishes
  - ESCI 423 - Past Environments of the Pacific Northwest
  - ESCI 426 - Marine Invertebrates and Their Environment
  - ESCI 428 - Freshwater Algae Bioindicators
  - ESCI 429 - Stream Ecology
  - ESCI 430 - Limnology and Limnology Lab
  - ESCI 440 - Wetlands Ecology
  - ESCI 442 - Introduction to Remote Sensing
  - ESCI 455 - Environmental Toxicology I AND
  - ESCI 457 - Environmental Toxicology Laboratory I
  - ESCI 456 - Environmental Toxicology II AND
  - ESCI 458 - Environmental Toxicology Laboratory II
- Electives under advisement (28-37 credits)
  - A minimum of 20 credits from
    - ESCI 300- or 400-level
  - Additional electives, if needed from:
    - BIOL 300- or 400-level
    - CHEM 300- or 400-level

- ENVS 300- or 400-level
- ESCI 300- or 400-level
- FAIR 330E - Ethnobotany
- FAIR 434P - Advanced Studies in Field Science
- GEOL 300- or 400-level
- MATH 125 - Calculus and Analytic Geometry II
- MATH 203 - Linear Algebra and Differential Equations I
- MATH 204 - Elementary Linear Algebra
- MATH 205 - Linear Algebra Workshop
- MATH 307 - Mathematical Computing
- MATH 309 - Introduction to Proof in Discrete Mathematics
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 225 - Multivariable Calculus and Geometry II
- MATH 226 - Limits and Infinite Series
- MATH 300- or 400-level

Maximum 3 courses allowed from:

- PHYS 114 - Principles of Physics I
- PHYS 115 - Principles of Physics II
- PHYS 116 - Principles of Physics III
- PHYS 161 - Physics with Calculus I
- PHYS 226 - Physics with Calculus IV
- PHYS 300- or 400-level

Freshwater Ecology Emphasis (34 credits minimum)

Complete the following courses to fulfill the Freshwater Ecology Emphasis. Courses used to fulfill requirements in the emphasis may also be used to fulfill above major requirements.

□ A minimum of 25 credits from:

- ESCI 302 - Environmental Pollution
- ESCI 333 - Introduction to Environmental Toxicology
- ESCI 361 - Water Quality
- ESCI 362 - Water Quality Lab
- ESCI 407 - Forest Ecology
- ESCI 408 - Field Methods in Wildlife Ecology
- ESCI 410 - Forest-Fish Interactions
- ESCI 411 - Forest and Fish Assessment
- ESCI 421 - Fisheries Management Lab
- ESCI 425 - Environmental Biology of Fishes
- ESCI 428 - Freshwater Algae Bioindicators
- ESCI 429 - Stream Ecology
- ESCI 430 - Limnology and Limnology Lab
- ESCI 431 - Watershed Biogeochemistry
- ESCI 433 - Population Biology
- ESCI 439 - Conservation of Biological Diversity
- ESCI 440 - Wetlands Ecology
- ESCI 442 - Introduction to Remote Sensing
- ESCI 459 - Aquatic Toxicology
- ESCI 460 - Contaminant Movement in the Environment
- ESCI 463 - Wetlands for Wastewater Treatment
- ESCI 490 - Environmental Risk Assessment



## ENVIRONMENTAL SCIENCES

- ESCI 492 - Climate Change
- Additional electives, if needed, from:
  - Maximum 3 courses allowed from:
    - BIOL 403 - Physiological Ecology of Animals
    - BIOL 404 - Plant Ecology
    - BIOL 405 - Microbial Ecology
    - BIOL 416 - Ecosystem Ecology and Global Change
    - BIOL 452 - Systematic Botany
    - BIOL 456 - Algae
    - BIOL 462 - Entomology
  - Maximum 3 courses allowed from:
    - CHEM 300- or 400-level
  - Maximum 3 courses allowed from:
    - ENVS 320 - Introduction to Geographic Information Systems
    - ENVS 327 - The Soil Environment
    - ENVS 426 - Water Resources
    - ENVS 427 - Soil Landscapes
  - Maximum 3 additional courses allowed from:
    - ENVS 300- or 400-level
- □ FAIR 434P - Advanced Studies in Field Science
  - Maximum 3 courses allowed from:
    - GEOL 372 - Watershed Hydrology
    - GEOL 413 - Fluvial Geomorphology
    - GEOL 415 - Stratigraphy and Sedimentation
    - GEOL 462 - Hydrogeochemistry
    - GEOL 472 - Surface Water Hydrology
    - GEOL 473 - Hydrogeology
    - GEOL 474 - Ground Water Contamination
  - Maximum 3 courses allowed from:
    - PHYS 114 - Principles of Physics I
    - PHYS 115 - Principles of Physics II
    - PHYS 116 - Principles of Physics III
    - PHYS 161 - Physics with Calculus I
    - PHYS 226 - Physics with Calculus IV

### **Environmental Science — Marine Ecology Emphasis, BS**

Department of Environmental Science, Huxley College of the Environment

#### **132-137 credits**

#### **Introduction/What is the Study of Environmental Science?**

Students wishing to complete an Environmental Science major in four years should complete the general chemistry series during their freshman year and the general biology series during their sophomore year. Prospective environmental science majors are strongly advised to take additional preparatory courses that provide a strong background in chemistry, biology and mathematics. The preparatory courses are listed with the major, where approved as GUR courses in the catalog, may be used to fulfill both Huxley College and GUR requirements. All preparatory courses required for admission should be completed on a lettered or numeric grading scale, not P/NP, and must be completed with a grade of C- or better.

## Why Consider a Marine Ecology Emphasis in Environmental Science Major?

### Contact Information

#### Department Chair

John Rybczyk  
Environmental Studies 336  
360-650-2081  
John.Rybczyk@wwu.edu

#### Huxley College Admissions Advisor

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

### Sample Careers

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

#### Preparatory Courses (47-52 credits)

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- ECON 206 - Introduction to Microeconomics
- MATH 124 - Calculus and Analytic Geometry I
- One course from:
  - ENVS 203 - Physical Geography
  - GEOL 211 - Physical Geology
  - Any BCOM or CCOM GUR requirement course
  - Any PLSC course

#### Major (85 credits)

- Choose either:
  - CHEM 251 - Elementary Organic Chemistry  
or one of the following series:
  - CHEM 351 - Organic Chemistry
  - CHEM 352 - Organic Chemistry
  - CHEM 354 - Organic Chemistry Laboratory I
- One course from:
  - ESCI 321 - Oceanography
  - ESCI 435 - Landscape Ecology
  - ESCI 492 - Climate Change
  - ENVS 325 - Geography of Landforms
  - ENVS 326 - Climatology

## ENVIRONMENTAL SCIENCES

- ❑ One course from:
  - ESCI 325 - Fundamentals of Ecology
  - BIOL 325 - Ecology
- ❑ One course from:
  - ESCI 340 - Biostatistical Analysis
  - BIOL 340 - Biometrics
- ❑ One course from:
  - ESCI 470 - Ecological Restoration
  - ESCI 490 - Environmental Risk Assessment
  - ESCI 491 - Oceanography of Puget Sound
  - ESCI 493 - Environmental Impact Assessment
  - ENVS 410 - Agroecology and Sustainable Agriculture
  - ENVS 430 - Borderlands
  - ENVS 474 - Planning for Sustainable Communities
  - ENVS 493 - Environmental Impact Assessment
  - ENVS 496 - Environmental Stewardship
- ❑ One course from: (minimum of 10 credits; maximum of 15 credits)
  - ESCI 498A - Senior Thesis
  - ESCI 498B - Internship
  - ESCI 498C - Senior Project
  - ESCI 498D - International Study
- ❑ One course from two of the following categories:
  - Human Ecology, Geography:
    - ENVS 303 - Human Ecology and Sustainability
    - ENVS 341 - Population and Resources
    - ENVS 343 - Urbanization: Processes and Patterns
  - Environmental Policy:
    - ENVS 304 - Environment and Resource Policy
    - ENVS 316 - Explorations in Environmental Studies
  - Environmental History, Philosophy, Ethics:
    - ENVS 305 - Environmental History and Ethics
    - ENVS 481 - History of Conservation in America
- ❑ Two lecture/lab courses or combination of courses from:
  - ESCI 321 - Oceanography AND
  - ESCI 322 - Oceanography Laboratory
  - ESCI 361 - Water Quality AND
  - ESCI 362 - Water Quality Lab
  - ESCI 407 - Forest Ecology
  - ESCI 408 - Field Methods in Wildlife Ecology
  - ESCI 410 - Forest-Fish Interactions AND
  - ESCI 411 - Forest and Fish Assessment
  - ESCI 421 - Fisheries Management Lab AND
  - ESCI 425 - Environmental Biology of Fishes
  - ESCI 423 - Past Environments of the Pacific Northwest
  - ESCI 426 - Marine Invertebrates and Their Environment
  - ESCI 428 - Freshwater Algae Bioindicators
  - ESCI 429 - Stream Ecology
  - ESCI 430 - Limnology and Limnology Lab

- ESCI 440 - Wetlands Ecology
- ESCI 442 - Introduction to Remote Sensing
- ESCI 455 - Environmental Toxicology I AND
- ESCI 457 - Environmental Toxicology Laboratory I
- ESCI 456 - Environmental Toxicology II AND
- ESCI 458 - Environmental Toxicology Laboratory II

□ Electives under advisement (28-37 credits)

A minimum of 20 credits from

ESCI 300- or 400-level

Additional electives, if needed from:

BIOL 300- or 400-level

CHEM 300- or 400-level

ENVS 300- or 400-level

ESCI 300- or 400-level

- FAIR 330E - Ethnobotany
- FAIR 434P - Advanced Studies in Field Science
- GEOL 300- or 400-level
- MATH 125 - Calculus and Analytic Geometry II
- MATH 203 - Linear Algebra and Differential Equations I
- MATH 204 - Elementary Linear Algebra
- MATH 205 - Linear Algebra Workshop
- MATH 307 - Mathematical Computing
- MATH 309 - Introduction to Proof in Discrete Mathematics
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 225 - Multivariable Calculus and Geometry II
- MATH 226 - Limits and Infinite Series
- MATH 300- or 400-level

Maximum 3 courses allowed from:

- PHYS 114 - Principles of Physics I
- PHYS 115 - Principles of Physics II
- PHYS 116 - Principles of Physics III
- PHYS 161 - Physics with Calculus I
- PHYS 226 - Physics with Calculus IV
- PHYS 300- or 400-level

Marine Ecology Emphasis (34 credits minimum)

Complete the following courses to fulfill the Marine Ecology Emphasis. Courses used to fulfill requirements in the emphasis may also be used to fulfill above major requirements.

□ A minimum of 25 credits from:

- ESCI 321 - Oceanography
- ESCI 322 - Oceanography Laboratory
- ESCI 333 - Introduction to Environmental Toxicology
- ESCI 361 - Water Quality
- ESCI 362 - Water Quality Lab
- ESCI 410 - Forest-Fish Interactions
- ESCI 411 - Forest and Fish Assessment
- ESCI 421 - Fisheries Management Lab
- ESCI 425 - Environmental Biology of Fishes
- ESCI 426 - Marine Invertebrates and Their Environment

## ENVIRONMENTAL SCIENCES

- ESCI 431 - Watershed Biogeochemistry
- ESCI 432 - Topics in Marine Ecology
- ESCI 433 - Population Biology
- ESCI 439 - Conservation of Biological Diversity
- ESCI 440 - Wetlands Ecology
- ESCI 444 - Biogeochemistry of Marine Sediments
- ESCI 455 - Environmental Toxicology I
- ESCI 456 - Environmental Toxicology II
- ESCI 457 - Environmental Toxicology Laboratory I
- ESCI 458 - Environmental Toxicology Laboratory II
- ESCI 459 - Aquatic Toxicology
- ESCI 460 - Contaminant Movement in the Environment
- ESCI 463 - Wetlands for Wastewater Treatment
- ESCI 491 - Oceanography of Puget Sound
- ESCI 492 - Climate Change
- Additional electives, if needed, from:
  - Maximum 3 courses allowed from:
    - BIOL 403 - Physiological Ecology of Animals
    - BIOL 405 - Microbial Ecology
    - BIOL 407 - Marine Ecology
    - BIOL 410 - Animal Behavior
    - BIOL 416 - Ecosystem Ecology and Global Change
    - BIOL 456 - Algae
    - BIOL 460 - Invertebrate Zoology
    - BIOL 464 - Biology of Marine Mammals
    - BIOL 471 - Biochemistry I
  - Maximum 3 courses allowed from:
    - CHEM 300- or 400-level
  - Maximum 3 courses allowed from:
    - EGEO 300- or 400-level
  - Maximum 3 courses allowed from:
    - ESTU 300- or 400-level
- GEOL 340 - Geological Oceanography
  - Maximum 3 courses allowed from:
    - MATH 125 - Calculus and Analytic Geometry II
    - MATH 204 - Elementary Linear Algebra
    - MATH 224 - Multivariable Calculus and Geometry I
    - MATH 331 - Ordinary Differential Equations
  - Maximum 3 courses allowed from:
    - PHYS 114 - Principles of Physics I
    - PHYS 115 - Principles of Physics II
    - PHYS 116 - Principles of Physics III
    - PHYS 161 - Physics with Calculus I
    - PHYS 226 - Physics with Calculus IV

## Environmental Science – Terrestrial Ecology Emphasis, BS

Department of Environmental Science, Huxley College of the Environment

### 132-137 credits

#### Introduction/What is the Study of Environmental Science?

Students wishing to complete an Environmental Science major in four years should complete the general chemistry series during their freshman year and the general biology series during their sophomore year. Prospective environmental science majors are strongly advised to take additional preparatory courses that provide a strong background in chemistry, biology and mathematics. The preparatory courses are listed with the major, where approved as GUR courses in the catalog, may be used to fulfill both Huxley College and GUR requirements. All preparatory courses required for admission should be completed on a lettered or numeric grading scale, not P/NP, and must be completed with a grade of C- or better.

#### Why Consider a Terrestrial Ecology Emphasis in Environmental Science Major?

##### Contact Information

##### Department Chair

John Rybczyk  
Environmental Studies 336  
360-650-2081  
John.Rybczyk@wwu.edu

##### Huxley College Admissions Advisor

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

##### Sample Careers

##### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

##### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

##### Requirements

##### Preparatory Courses (47-52 credits)

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- ECON 206 - Introduction to Microeconomics
- MATH 124 - Calculus and Analytic Geometry I
- One course from:
  - ENVS 203 - Physical Geography
  - GEOL 211 - Physical Geology
- Any BCOM or CCOM GUR requirement course

# ENVIRONMENTAL SCIENCES

- Any PLSC course

Major (85 credits)

- Choose either:

- CHEM 251 - Elementary Organic Chemistry  
or the following series:
- CHEM 351 - Organic Chemistry
- CHEM 352 - Organic Chemistry
- CHEM 354 - Organic Chemistry Laboratory I

- One course from:

- ESCI 321 - Oceanography
- ESCI 435 - Landscape Ecology
- ESCI 492 - Climate Change
- ENVS 325 - Geography of Landforms
- ENVS 326 - Climatology

- One course from:

- ESCI 325 - Fundamentals of Ecology
- BIOL 325 - Ecology

- One course from:

- ESCI 340 - Biostatistical Analysis
- BIOL 340 - Biometrics

- One course from:

- ESCI 470 - Ecological Restoration
- ESCI 490 - Environmental Risk Assessment
- ESCI 491 - Oceanography of Puget Sound
- ESCI 493 - Environmental Impact Assessment
- ENVS 410 - Agroecology and Sustainable Agriculture
- ENVS 430 - Borderlands
- ENVS 474 - Planning for Sustainable Communities
- ENVS 493 - Environmental Impact Assessment
- ENVS 496 - Environmental Stewardship

- One course from: (minimum of 10 credits; maximum of 15 credits)

- ESCI 498A - Senior Thesis
- ESCI 498B - Internship
- ESCI 498C - Senior Project
- ESCI 498D - International Study

- One course from two of the following categories:

Human Ecology, Geography:

- ENVS 303 - Human Ecology and Sustainability
- ENVS 341 - Population and Resources
- ENVS 343 - Urbanization: Processes and Patterns

Environmental Policy:

- ENVS 304 - Environment and Resource Policy
- ENVS 320 - Introduction to Geographic Information Systems

Environmental History, Philosophy, Ethics:

- ENVS 305 - Environmental History and Ethics
- ENVS 481 - History of Conservation in America

- Two lecture/lab courses or combination of courses from:

ESCI 321 - Oceanography AND

- ESCI 322 - Oceanography Laboratory
- ESCI 361 - Water Quality AND
- ESCI 362 - Water Quality Lab
- ESCI 407 - Forest Ecology
- ESCI 408 - Field Methods in Wildlife Ecology
- ESCI 410 - Forest-Fish Interactions AND
- ESCI 411 - Forest and Fish Assessment
- ESCI 421 - Fisheries Management Lab AND
- ESCI 425 - Environmental Biology of Fishes
- ESCI 423 - Past Environments of the Pacific Northwest
- ESCI 426 - Marine Invertebrates and Their Environment
- ESCI 428 - Freshwater Algae Bioindicators
- ESCI 429 - Stream Ecology
- ESCI 430 - Limnology and Limnology Lab
- ESCI 440 - Wetlands Ecology
- ESCI 442 - Introduction to Remote Sensing
- ESCI 455 - Environmental Toxicology I AND
- ESCI 457 - Environmental Toxicology Laboratory I
- ESCI 456 - Environmental Toxicology II AND
- ESCI 458 - Environmental Toxicology Laboratory II

□ Electives under advisement (28-37 credits)

A minimum of 20 credits from

ESCI 300- or 400-level

Additional electives, if needed from:

BIOL 300- or 400-level

CHEM 300- or 400-level

ENVS 300- or 400-level

ESCI 300- or 400-level

- FAIR 330E - Ethnobotany
- FAIR 434P - Advanced Studies in Field Science
- GEOL 300- or 400-level
- MATH 125 - Calculus and Analytic Geometry II
- MATH 203 - Linear Algebra and Differential Equations I
- MATH 204 - Elementary Linear Algebra
- MATH 205 - Linear Algebra Workshop
- MATH 307 - Mathematical Computing
- MATH 309 - Introduction to Proof in Discrete Mathematics
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 225 - Multivariable Calculus and Geometry II
- MATH 226 - Limits and Infinite Series
- MATH 300- or 400-level

Maximum 3 courses allowed from:

- PHYS 114 - Principles of Physics I
- PHYS 115 - Principles of Physics II
- PHYS 116 - Principles of Physics III
- PHYS 161 - Physics with Calculus I
- PHYS 226 - Physics with Calculus IV
- PHYS 300- or 400-level



# ENVIRONMENTAL SCIENCES

## Terrestrial Ecology Emphasis (34 credit minimum)

Complete the following courses to fulfill the Terrestrial Ecology Emphasis. Courses used to fulfill requirements in the emphasis may also be used to fulfill above major requirements.

A minimum of 24 credits from

- ENVS 327 - The Soil Environment
- ENVS 427 - Soil Landscapes
- ESCI 330 - Natural History of the Pacific Northwest
- ESCI 392 - Introduction to Global Change
- ESCI 407 - Forest Ecology
- ESCI 408 - Field Methods in Wildlife Ecology
- ESCI 410 - Forest-Fish Interactions
- ESCI 411 - Forest and Fish Assessment
- ESCI 423 - Past Environments of the Pacific Northwest
- ESCI 431 - Watershed Biogeochemistry
- ESCI 433 - Population Biology
- ESCI 435 - Landscape Ecology
- ESCI 439 - Conservation of Biological Diversity
- ESCI 442 - Introduction to Remote Sensing
- ESCI 492 - Climate Change

Additional electives, if needed, from:

Maximum 4 courses allowed from:

- BIOL 326 - Ecology Laboratory
- BIOL 403 - Physiological Ecology of Animals
- BIOL 404 - Plant Ecology
- BIOL 410 - Animal Behavior
- BIOL 416 - Ecosystem Ecology and Global Change
- BIOL 432 - Evolutionary Biology
- BIOL 450 - Plant Anatomy
- BIOL 451 - Developmental Biology of Plants
- BIOL 452 - Systematic Botany
- BIOL 460 - Invertebrate Zoology
- BIOL 462 - Entomology
- BIOL 465 - Vertebrate Zoology
- BIOL 467 - Comparative Vertebrate Physiology
- BIOL 468 - Comparative Vertebrate Physiology Laboratory
- BIOL 479 - Plant Physiology
- BIOL 482 - Developmental Biology of Animals

Maximum 3 courses allowed from:

CHEM 300- or 400-level

Maximum 4 courses allowed from:

- ENVS 320 - Introduction to Geographic Information Systems
- ENVS 325 - Geography of Landforms
- ENVS 326 - Climatology
- ENVS 372 - Natural Hazards Planning
- ENVS 420 - Intermediate Geographic Information Systems
- ENVS 421 - GIS Databases
- ENVS 422 - Advanced GIS
- ENVS 428 - Biogeography

Maximum 4 courses allowed from:

- ESCI 321 - Oceanography
- ESCI 361 - Water Quality
- ESCI 362 - Water Quality Lab
- ESCI 421 - Fisheries Management Lab
- ESCI 429 - Stream Ecology
- ESCI 430 - Limnology and Limnology Lab
- ESCI 440 - Wetlands Ecology
- ESCI 455 - Environmental Toxicology I
- ESCI 456 - Environmental Toxicology II
- ESCI 457 - Environmental Toxicology Laboratory I
- ESCI 458 - Environmental Toxicology Laboratory II
- ESCI 459 - Aquatic Toxicology
- ESCI 462 - Air Pollution
- ESCI 490 - Environmental Risk Assessment

Maximum 3 courses allowed from:

ENVS 300- or 400-level

Maximum 3 courses allowed from:

- FAIR 330E - Ethnobotany
- FAIR 434P - Advanced Studies in Field Science

Maximum 3 courses allowed from:

- GEOL 310 - Geomorphology
- GEOL 318 - Structural Geology
- GEOL 372 - Watershed Hydrology
- GEOL 413 - Fluvial Geomorphology
- GEOL 415 - Stratigraphy and Sedimentation
- GEOL 455 - Climate-Related Geologic Hazards
- GEOL 462 - Hydrogeochemistry
- GEOL 470 - Landslides and Slope Stability
- GEOL 472 - Surface Water Hydrology
- GEOL 473 - Hydrogeology
- GEOL 474 - Ground Water Contamination

Maximum 3 courses allowed from:

- PHYS 114 - Principles of Physics I
- PHYS 115 - Principles of Physics II
- PHYS 116 - Principles of Physics III
- PHYS 161 - Physics with Calculus I
- PHYS 226 - Physics with Calculus IV

## **Environmental Science — Toxicology Emphasis, BS**

Department of Environmental Science, Huxley College of the Environment

**132-137 credits**

### **Introduction/What is the Study of Environmental Science?**

Students wishing to complete an Environmental Science major in four years should complete the general chemistry series during their freshman year and the general biology series during their sophomore year. Prospective environmental science majors are strongly advised to take additional preparatory courses that

## ENVIRONMENTAL SCIENCES

provide a strong background in chemistry, biology and mathematics. The preparatory courses are listed with the major, where approved as GUR courses in the catalog, may be used to fulfill both Huxley College and GUR requirements. All preparatory courses required for admission should be completed on a lettered or numeric grading scale, not P/NP, and must be completed with a grade of C- or better.

### Why Consider a Toxicology Emphasis in Environmental Science Major?

#### Contact Information

##### Department Chair

John Rybczyk  
Environmental Studies 336  
360-650-2081  
John.Rybczyk@wwu.edu

##### Huxley College Admissions Advisor

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

#### Sample Careers

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

##### Preparatory Courses (47-52 credits)

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology
- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- ECON 206 - Introduction to Microeconomics
- MATH 124 - Calculus and Analytic Geometry I
- One course from:
  - ENVS 203 - Physical Geography
  - GEOL 211 - Physical Geology
  - Any BCOM or CCOM GUR requirement course
  - Any PLSC course

##### Major (85 credits)

- Choose either:
  - CHEM 251 - Elementary Organic Chemistry
  - or the following series:
    - CHEM 351 - Organic Chemistry
    - CHEM 352 - Organic Chemistry
    - CHEM 354 - Organic Chemistry Laboratory I
- One course from:
  - ESCI 321 - Oceanography

- ESCI 435 - Landscape Ecology
- ESCI 492 - Climate Change
- ENVS 325 - Geography of Landforms
- ENVS 326 - Climatology
- One course from:
  - BIOL 325 - Ecology
  - ESCI 325 - Fundamentals of Ecology
- One course from:
  - BIOL 340 - Biometrics
  - ESCI 340 - Biostatistical Analysis
- One course from:
  - ESCI 470 - Ecological Restoration
  - ESCI 490 - Environmental Risk Assessment
  - ESCI 491 - Oceanography of Puget Sound
  - ESCI 493 - Environmental Impact Assessment
  - ENVS 410 - Agroecology and Sustainable Agriculture
  - ENVS 430 - Borderlands
  - ENVS 474 - Planning for Sustainable Communities
  - ENVS 493 - Environmental Impact Assessment
  - ENVS 496 - Environmental Stewardship
- One course from: (minimum of 10 credits; maximum of 15 credits)
  - ESCI 498A - Senior Thesis
  - ESCI 498B - Internship
  - ESCI 498C - Senior Project
  - ESCI 498D - International Study
- One course from two of the following categories:
  - Human Ecology, Geography:
    - ENVS 303 - Human Ecology and Sustainability
    - ENVS 341 - Population and Resources
    - ENVS 343 - Urbanization: Processes and Patterns
  - Environmental Policy:
    - ENVS 304 - Environment and Resource Policy
    - ENVS 316 - Explorations in Environmental Studies
  - Environmental History, Philosophy, Ethics:
    - ENVS 305 - Environmental History and Ethics
    - ENVS 481 - History of Conservation in America
- Two lecture/lab courses or combination of courses from:
  - ESCI 321 - Oceanography AND
  - ESCI 322 - Oceanography Laboratory
  - ESCI 361 - Water Quality AND
  - ESCI 362 - Water Quality Lab
  - ESCI 407 - Forest Ecology
  - ESCI 408 - Field Methods in Wildlife Ecology
  - ESCI 410 - Forest-Fish Interactions AND
  - ESCI 411 - Forest and Fish Assessment
  - ESCI 421 - Fisheries Management Lab AND
  - ESCI 425 - Environmental Biology of Fishes
  - ESCI 423 - Past Environments of the Pacific Northwest

## ENVIRONMENTAL SCIENCES

- ESCI 426 - Marine Invertebrates and Their Environment
- ESCI 428 - Freshwater Algae Bioindicators
- ESCI 429 - Stream Ecology
- ESCI 430 - Limnology and Limnology Lab
- ESCI 440 - Wetlands Ecology
- ESCI 442 - Introduction to Remote Sensing
- ESCI 455 - Environmental Toxicology I AND
- ESCI 457 - Environmental Toxicology Laboratory I
- ESCI 456 - Environmental Toxicology II AND
- ESCI 458 - Environmental Toxicology Laboratory II

□ Electives under advisement (28-37 credits)

A minimum of 20 credits from:

ESCI 300- or 400-level

Additional electives, if needed from:

BIOL 300- or 400-level

CHEM 300- or 400-level

ENVS 300- or 400-level

ESCI 300- or 400-level

- FAIR 330E - Ethnobotany
- FAIR 434P - Advanced Studies in Field Science
- GEOL 300- or 400-level
- MATH 125 - Calculus and Analytic Geometry II
- MATH 203 - Linear Algebra and Differential Equations I
- MATH 204 - Elementary Linear Algebra
- MATH 205 - Linear Algebra Workshop
- MATH 307 - Mathematical Computing
- MATH 309 - Introduction to Proof in Discrete Mathematics
- MATH 224 - Multivariable Calculus and Geometry I
- MATH 225 - Multivariable Calculus and Geometry II
- MATH 226 - Limits and Infinite Series
- MATH 300- or 400-level

Maximum 3 courses allowed from:

- PHYS 114 - Principles of Physics I
- PHYS 115 - Principles of Physics II
- PHYS 116 - Principles of Physics III
- PHYS 161 - Physics with Calculus I
- PHYS 226 - Physics with Calculus IV
- PHYS 300- or 400-level

Toxicology Emphasis (34 credit minimum)

Complete the following courses to fulfill the Toxicology Emphasis. Courses used to fulfill requirements in the emphasis may also be used to fulfill above major requirements.

□ Minimum of 2 courses from:

- ESCI 321 - Oceanography
- ESCI 340 - Biostatistical Analysis
- ESCI 361 - Water Quality
- ESCI 362 - Water Quality Lab
- ESCI 421 - Fisheries Management Lab
- ESCI 428 - Freshwater Algae Bioindicators

- ESCI 430 - Limnology and Limnology Lab
  - ESCI 431 - Watershed Biogeochemistry
  - ESCI 433 - Population Biology
  - ESCI 435 - Landscape Ecology
  - ESCI 439 - Conservation of Biological Diversity
  - ESCI 444 - Biogeochemistry of Marine Sediments
  - ESCI 462 - Air Pollution
  - ESCI 492 - Climate Change
  - Minimum of 4 courses, including 1 lab from:
    - ESCI 333 - Introduction to Environmental Toxicology
    - ESCI 457 - Environmental Toxicology Laboratory I
    - ESCI 458 - Environmental Toxicology Laboratory II
    - ESCI 459 - Aquatic Toxicology
    - ESCI 460 - Contaminant Movement in the Environment
    - ESCI 490 - Environmental Risk Assessment
    - □ ESCI 455 - Environmental Toxicology I
    - □ ESCI 456 - Environmental Toxicology II
  - Additional electives, if needed, from:
    - BIOL 321 - Genetics
    - BIOL 322 - Genetics Lab
    - BIOL 405 - Microbial Ecology
    - CHEM 333 - Analytical Chemistry
    - CHEM 351 - Organic Chemistry
    - CHEM 352 - Organic Chemistry
    - CHEM 353 - Organic Chemistry
    - CHEM 354 - Organic Chemistry Laboratory I
    - CHEM 375 - Elements of Biochemistry
    - CHEM 471 - Biochemistry I
    - ENVS 320 - Introduction to Geographic Information Systems
    - ENVS 326 - Climatology
    - ENVS 327 - The Soil Environment
- Maximum 6 additional courses allowed from:  
ENVS 300- or 400-level
- Maximum 3 courses from:
- PHYS 114 - Principles of Physics I
  - PHYS 115 - Principles of Physics II
  - PHYS 116 - Principles of Physics III
  - PHYS 161 - Physics with Calculus I
  - PHYS 226 - Physics with Calculus IV

## **Environmental Science, BS**

Department of Environmental Science, Huxley College of the Environment

**132-137 credits**

# ENVIRONMENTAL SCIENCES

## Introduction/What is the Study of Environmental Science?

Environmental Science draws on basic knowledge of the physical, chemical, biological and quantitative aspects of natural systems. The knowledge of how natural systems work is applied to solving problems largely created by human activities. Often these problems are represented by disturbances in the functioning of natural systems. Humans are altering their own life-support systems – the air, the water and soil. The scale of disturbance ranges from the molecular and cellular to individuals, populations, ecosystems, and regional and global levels.

The Environmental Science major will acquire the scientific and problem solving skills needed to conserve and restore the natural environment. Students of Environmental Science will go directly into an environmental science career or on to graduate school to further their study.

Students wishing to complete an Environmental Science major in four years should complete the general chemistry series during their freshman year and the general biology series during their sophomore year. Prospective environmental science majors are strongly advised to take additional preparatory courses that provide a strong background in chemistry, biology and mathematics. The preparatory courses are listed with the major, where approved as GUR courses in the catalog, may be used to fulfill both Huxley College and GUR requirements. All preparatory courses required for admission should be completed on a lettered or numeric grading scale, not P/NP, and must be completed with a grade of C- or better.

## Why Consider an Environmental Science Major?

Are you excited by how natural systems work? Do you want to solve the problems of the natural environment caused by human activities? Do you love to work outdoors? Do you love the sciences and scientific inquiry? Then Environmental Science is for you.

### Contact Information

#### Department Chair

John Rybczyk  
Environmental Studies 336  
360-650-2081  
John.Rybczyk@wwu.edu

#### Huxley College Admissions Advisor

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

### Sample Careers

Wildlife Biologist | Naturalist | Endangered Species Biologist | Environmental Inspector | Environmental Scientist | Fisheries Biologist | Marine Biologist | Safety and Health Specialist | Park Ranger | Aquatic Toxicologist | Wetlands Ecologist | Biological Survey | Water Resources Specialist | Environmental Chemist | Soil Conservation Specialist

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

Admission and Declaration of Major

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

#### Preparatory Courses (47-52 credits)

- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- BIOL 205 - Introduction to Cellular and Molecular Biology
- BIOL 206 - Introduction to Organismal Biology

- CHEM 121 - General Chemistry I
- CHEM 122 - General Chemistry II
- CHEM 123 - General Chemistry III
- ECON 206 - Introduction to Microeconomics
- MATH 124 - Calculus and Analytic Geometry I
- One course from:
  - ENVS 203 - Physical Geography
  - GEOL 211 - Physical Geology
- Any BCOM or CCOM GUR requirement course
- Any PLSC course

## Major (85 credits)

- Choose either:
  - CHEM 251 - Elementary Organic Chemistry  
or the following series:
  - CHEM 351 - Organic Chemistry
  - CHEM 352 - Organic Chemistry
  - CHEM 354 - Organic Chemistry Laboratory I
- One course from:
  - ESCI 321 - Oceanography
  - ESCI 435 - Landscape Ecology
  - ESCI 492 - Climate Change
  - ENVS 325 - Geography of Landforms
  - ENVS 326 - Climatology
- One course from:
  - ESCI 325 - Fundamentals of Ecology
  - BIOL 325 - Ecology
- One course from:
  - ESCI 340 - Biostatistical Analysis
  - BIOL 340 - Biometrics
- One course from:
  - ESCI 470 - Ecological Restoration
  - ESCI 490 - Environmental Risk Assessment
  - ESCI 491 - Oceanography of Puget Sound
  - ESCI 493 - Environmental Impact Assessment
  - ENVS 410 - Agroecology and Sustainable Agriculture
  - ENVS 430 - Borderlands
  - ENVS 474 - Planning for Sustainable Communities
  - ENVS 493 - Environmental Impact Assessment
  - ENVS 496 - Environmental Stewardship
- One course from: (minimum of 10 credits; maximum of 15 credits)
  - ESCI 498A - Senior Thesis
  - ESCI 498B - Internship
  - ESCI 498C - Senior Project
  - ESCI 498D - International Study
- One course from two of the following categories:  
Human Ecology, Geography:
  - ENVS 303 - Human Ecology and Sustainability



## ENVIRONMENTAL SCIENCES

- ENVS 341 - Population and Resources
- ENVS 343 - Urbanization: Processes and Patterns
- Environmental Policy:
  - ENVS 304 - Environment and Resource Policy
  - ENVS 316 - Explorations in Environmental Studies
- Environmental History, Philosophy, Ethics:
  - ENVS 305 - Environmental History and Ethics
  - ENVS 481 - History of Conservation in America
- Two lecture/lab courses or combination of courses from:
  - ESCI 321 - Oceanography AND
  - ESCI 322 - Oceanography Laboratory
  - ESCI 361 - Water Quality AND
  - ESCI 362 - Water Quality Lab
  - ESCI 407 - Forest Ecology
  - ESCI 408 - Field Methods in Wildlife Ecology
  - ESCI 410 - Forest-Fish Interactions AND
  - ESCI 411 - Forest and Fish Assessment
  - ESCI 421 - Fisheries Management Lab AND
  - ESCI 425 - Environmental Biology of Fishes
  - ESCI 423 - Past Environments of the Pacific Northwest
  - ESCI 426 - Marine Invertebrates and Their Environment
  - ESCI 428 - Freshwater Algae Bioindicators
  - ESCI 429 - Stream Ecology
  - ESCI 430 - Limnology and Limnology Lab
  - ESCI 440 - Wetlands Ecology
  - ESCI 442 - Introduction to Remote Sensing
  - ESCI 455 - Environmental Toxicology I AND
  - ESCI 457 - Environmental Toxicology Laboratory I
  - ESCI 456 - Environmental Toxicology II AND
  - ESCI 458 - Environmental Toxicology Laboratory II
- Electives under advisement (28-37 credits)
  - A minimum of 20 credits from
    - ESCI 300- or 400-level
  - Additional electives, if needed from:
    - BIOL 300- or 400-level
    - CHEM 300- or 400-level
    - ENVS 300- or 400-level
    - ESCI 300- or 400-level
    - FAIR 330E - Ethnobotany
    - FAIR 434P - Advanced Studies in Field Science
    - GEOL 300- or 400-level
    - MATH 125 - Calculus and Analytic Geometry II
    - MATH 203 - Linear Algebra and Differential Equations I
    - MATH 204 - Elementary Linear Algebra
    - MATH 205 - Linear Algebra Workshop
    - MATH 307 - Mathematical Computing
    - MATH 309 - Introduction to Proof in Discrete Mathematics
    - MATH 224 - Multivariable Calculus and Geometry I

- MATH 225 - Multivariable Calculus and Geometry II
  - MATH 226 - Limits and Infinite Series
  - MATH 300- or 400-level
- Maximum 3 courses allowed from:
- PHYS 114 - Principles of Physics I
  - PHYS 115 - Principles of Physics II
  - PHYS 116 - Principles of Physics III
  - PHYS 161 - Physics with Calculus I
  - PHYS 226 - Physics with Calculus IV
  - PHYS 300- or 400-level

## Master of Science

### Environmental Science, Environmental Toxicology & Chemistry, Thesis, MS

*Huxley College of the Environment*

#### Graduate Faculty

**Abel, Troy D.**, PhD, environmental policy, conservation politics, civic environmentalism, policy analysis, globalization and environment.

**Bach, Andrew J.**, PhD, physical geography, geomorphology, soils and weathering, geoarcheology.

**Berardi, Gigi**, PhD, resources management, agroecology, international community development, food security, all-hazards planning.

**Bingham, Brian L.**, PhD, invertebrate biology, marine ecology, experimental design.

**Bodensteiner, Leo R.**, PhD, fish ecology.

**Buckley, Patrick H.**, PhD, economic and development geography, quantitative methods, GIS, environmental issues in Japan and China, quality of life, transborder environmental issues.

**Bunn, Andrew G.**, PhD, climate change, paleoecology, energy, ecological models.

**Bunn, Rebecca**, PhD, belowground ecology, toxicology, restoration, energy, the application of statistics.

**Helfield, James M.**, PhD, ecology of rivers and riparian forests, terrestrial/aquatic ecosystem linkages, watershed management and restoration.

**Hollenhorst, Steven**, PhD, social dimensions of natural resources, wilderness and protected area policy management.

**Homann, Peter S.**, PhD, biogeochemistry, soil sciences, forest ecology.

**Landis, Wayne G.**, PhD, environmental toxicology, population biology, risk assessment.

**Love, Brooke**, PhD, geochemistry, ocean acidification, hydrothermal systems, chemistry of volatiles in the marine environment.

**Matthews, Robin A.**, PhD, freshwater ecology, aquatic toxicology, statistical ecology.

**McLaughlin, John F.**, PhD, terrestrial ecology, population biology, conservation biology.

**Medler, Michael J.**, PhD, biogeography, GIS, remote sensing, forest fire and wilderness management.

**Melioux, Jean O.**, JD, environmental and land use law and policy, international environmental policy.

**Miles, John C.**, PhD, environmental education and history, public lands management.

**Miles, Scott B.**, PhD, sustainable development for risk reduction, social vulnerability, community disaster recovery, local self reliance.

**Mookherjee, Debnath**, PhD, comparative urbanization, regional development and planning, developing countries.

**Myers, O. Eugene**, PhD, environmental education, conservation psychology, human ecology, environmental history and ethics.

**Rossiter, David A.**, PhD, Canada, cultural-historical geographies, political ecologies.

**Rybczyk, John M.**, PhD, wetland ecology and management, ecosystem modeling, global climate change.

## ENVIRONMENTAL SCIENCES

**Shull, David H.**, PhD, structure and function of marine benthic communities, pollution and marine ecosystems.

**Sofield, Ruth M.**, PhD, aquatic toxicology, biochemical and genetic toxicology, environmental chemistry.

**Stangl, Paul A.**, PhD, pedestrian planning, new urbanism, urban landscapes, memory and meaning; Europe and Berlin.

**Sulkin, Stephen D.**, PhD, invertebrate biology, larval ecology.

**Wallin, David O.**, PhD, terrestrial ecology, forest ecosystems.

**Wang, Grace A.**, PhD, natural resource policy, cultural resources management, community-based forestry.

**Zaferatos, Nicholas C.**, PhD, community and environmental planning, sustainable development, European environmental policy, Native American political development.

Program Advisor: Dr. Ruth Sofield, Environmental Studies 440

### Program Description

The MS in environmental science is a two-year curriculum which draws upon course work from Huxley College and the other colleges of WWU. It is directed toward the development and integration of scientific information in order to describe, predict and/or manage natural systems, and to assess human impacts on those systems. This specialization focuses on the transport, fate and toxic effects of chemicals in the environment, laboratory testing and field work, chemical analytical measurement of pollutants and the influence of nutritional factors on pollutant toxicity. Studies of chemical fate and toxicity at the biochemical, organismal, population and ecosystem levels.

### Goals

The program prepares students to describe, predict and/or manage natural systems and to assess human impacts on those systems.

### Prerequisites

A bachelor's degree and college-level course work including a minimum of one year of general chemistry plus one quarter or semester of organic chemistry, one year of general biology, one course each in ecology, calculus and statistics.

### Application Information

**Admit Quarter:** Students will be admitted into the MS in environmental science program fall quarter only.

**Deadlines:** Because maximum student enrollment is limited, all applicants are strongly encouraged to submit application materials by February 1. Review of materials will begin after that date and will continue until the enrollment limit is reached or on June 1, whichever comes first.

**TA Deadline:** To be considered for a graduate teaching assistantship, applicants should submit their application materials by February 1 and indicate in the statement of purpose how the prerequisites listed above have or will be met before starting the program.

**Specific Test Requirements:** For all options: Graduate Record Exam, General Test. Applicants with advanced degrees are not required to submit GRE scores.

#### Supporting Materials:

- An application for admission into the MS program in environmental science must include a one- to two-page statement of purpose indicating which specialization the applicant is most interested in, explaining why the applicant wishes to pursue graduate studies in environmental science, and what future expectations he or she has for the MS degree.
- The statement may indicate a preferred faculty advisor; students are encouraged to review faculty research interests as described on the Huxley website, [http://www.wvu.edu/huxley/facstaff/facstaffdirectories/hux\\_deptenvscience.shtml](http://www.wvu.edu/huxley/facstaff/facstaffdirectories/hux_deptenvscience.shtml), prior to contacting potential faculty advisors; students are admitted into the program only upon agreement of potential faculty advisors.

## Program Requirements (45-69 credits)

Minimum of 45 credits are required, including:

- ESCI 501 (3);
- 30 credits of course work, including three courses from the area of specialization, or course substitutions, under advisement;
- 12 credits of ESCI 690 (thesis).

Ten credits or less of approved 400-level course work may be included in the program. No more than four elective credits of ESCI 595 (Teaching Practicum) may be used toward the MS degree in environmental science. Each candidate should note that the department has an annual review of student progress that affects retention, in addition to the other program requirements listed here. The student will make a public presentation of the thesis research either on campus at Western Washington University or Shannon Point and will participate in an oral exam given by the thesis committee.

For further information, write or consult the Huxley College Graduate Program Coordinator, Western Washington University, Bellingham, WA 98225-9079, 360-650-3646.

Specialization courses:

- ESCI 450
- ESCI 460 - Contaminant Movement in the Environment
  - ESCI 500 (when toxicology/chemistry topic)
- ESCI 502 - Experimental Design
- ESCI 503 - Statistical Ecology
  - ESCI 517 (when toxicology/chemistry topic)
- ESCI 533 - Advanced Population Biology
  - ESCI 545 (when toxicology/chemistry topic)
- ESCI 555 - Advanced Environmental Toxicology I
- ESCI 556 - Advanced Environmental Toxicology II
- ESCI 557 - Advanced Environmental Toxicology Laboratory I
- ESCI 558 - Advanced Environmental Toxicology Laboratory II
- ESCI 559 - Aquatic Toxicology
- ESCI 562 - Advanced Air Pollution
- ESCI 590 - Advanced Environmental Risk Assessment
  - ESCI 597 (when toxicology/chemistry topic)
- ESCI 599 - Graduate Environmental Studies Seminar (when toxicology/chemistry topic)

## Environmental Science, Freshwater Ecology, Thesis, MS

*Huxley College of the Environment*

### Graduate Faculty

**Abel, Troy D.**, PhD, environmental policy, conservation politics, civic environmentalism, policy analysis, globalization and environment.

**Bach, Andrew J.**, PhD, physical geography, geomorphology, soils and weathering, geoarcheology.

**Berardi, Gigi**, PhD, resources management, agroecology, international community development, food security, all-hazards planning.

**Bingham, Brian L.**, PhD, invertebrate biology, marine ecology, experimental design.

**Bodensteiner, Leo R.**, PhD, fish ecology.

**Buckley, Patrick H.**, PhD, economic and development geography, quantitative methods, GIS, environmental issues in Japan and China, quality of life, transborder environmental issues.

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**Bunn, Rebecca**, PhD, belowground ecology, toxicology, restoration, energy, the application of statistics.

## ENVIRONMENTAL SCIENCES

**Helfield, James M.**, PhD, ecology of rivers and riparian forests, terrestrialaquatic ecosystem linkages, watershed management and restoration.

**Hollenhorst, Steven**, PhD, social dimensions of natural resources, wilderness and protected area policy and management.

**Homann, Peter S.**, PhD, biogeochemistry, soil sciences, forest ecology.

**Landis, Wayne G.**, PhD, environmental toxicology, population biology, risk assessment.

**Love, Brooke**, PhD, geochemistry, ocean acidification, hydrothermal systems, chemistry of volatiles in the marine environment.

**Matthews, Robin A.**, PhD, freshwater ecology, aquatic toxicology, statistical ecology.

**McLaughlin, John F.**, PhD, terrestrial ecology, population biology, conservation biology.

**Medler, Michael J.**, PhD, biogeography, GIS, remote sensing, forest fire and wilderness management.

**Melious, Jean O.**, JD, environmental and land use law and policy, international environmental policy.

**Miles, John C.**, PhD, environmental education and history, public lands management.

**Miles, Scott B.**, PhD, sustainable development for risk reduction, social vulnerability, community disaster recovery, local self-reliance.

**Mookherjee, Debnath**, PhD, comparative urbanization, regional development and planning, developing countries.

**Myers, O. Eugene**, PhD, environmental education, conservation psychology, human ecology, environmental history and ethics.

**Rossiter, David A.**, PhD, Canada, cultural-historical geographies, political ecologies.

**Rybczyk, John M.**, PhD, wetland ecology and management, ecosystem modeling, global climate change.

**Shull, David H.**, PhD, structure and function of marine benthic communities, pollution and marine ecosystems.

**Sofield, Ruth M.**, PhD, aquatic toxicology, biochemical and genetic toxicology, environmental chemistry.

**Stangl, Paul A.**, PhD, pedestrian planning, new urbanism, urban landscapes, memory and meaning; Europe and Berlin.

**Sulkin, Stephen D.**, PhD, invertebrate biology, larval ecology.

**Wallin, David O.**, PhD, terrestrial ecology, forest ecosystems.

**Wang, Grace A.**, PhD, natural resource policy, cultural resources management, community-based forestry.

**Zaferatos, Nicholas C.**, PhD, community and environmental planning, sustainable development, European environmental policy, Native American political development.

Program Advisor: Dr. Ruth Sofield, Environmental Studies 440

### Program Description

The MS in environmental science is a two-year curriculum which draws upon course work from Huxley College and the other colleges of WWU. It is directed toward the development and integration of scientific information in order to describe, predict and/or manage natural systems, and to assess human impacts on those systems. This specialization focuses on the study of physical, chemical and biological processes in freshwater systems, including lakes, streams and watersheds.

### Goals

The program prepares students to describe, predict and/or manage natural systems and to assess human impacts on those systems.

### Prerequisites

A bachelor's degree and college-level course work including a minimum of one year of general chemistry plus one quarter or semester of organic chemistry, one year of general biology, one course each in ecology, calculus and statistics.

### Application Information

**Admit Quarter:** Students will be admitted into the MS in environmental science program fall quarter only.

**Deadlines:** Because maximum student enrollment is limited, all applicants are strongly encouraged to submit application materials by February 1. Review of materials will begin after that date and will continue until the enrollment limit is reached or on June 1, whichever comes first.

**TA Deadline:** To be considered for a graduate teaching assistantship, applicants should submit their application materials by February 1 and indicate in the statement of purpose how the prerequisites listed above have or will be met before starting the program.

**Specific Test Requirements:** For all options: Graduate Record Exam, General Test. Applicants with advanced degrees are not required to submit GRE scores.

**Supporting Materials:**

- An application for admission into the MS program in environmental science must include a one- to two-page statement of purpose indicating which specialization the applicant is most interested in, explaining why the applicant wishes to pursue graduate studies in environmental science, and what future expectations he or she has for the MS degree.
- The statement may indicate a preferred faculty advisor; students are encouraged to review faculty research interests as described on the Huxley website, [http://www.wvu.edu/huxley/facstaff/facstaffdirectories/hux\\_deptenvscience.shtml](http://www.wvu.edu/huxley/facstaff/facstaffdirectories/hux_deptenvscience.shtml), prior to contacting potential faculty advisors; students are admitted into the program only upon agreement of potential faculty advisors.

**Program Requirements (45-69 credits)**

Minimum of 45 credits are required, including:

- ESCI 501 (3);
- 30 credits of course work, including three courses from the area of specialization, or course substitutions, under advisement;
- 12 credits of ESCI 690 (thesis).

Ten credits or less of approved 400-level course work may be included in the program. No more than four elective credits of ESCI 595 (Teaching Practicum) may be used toward the MS degree in environmental science. Each candidate should note that the department has an annual review of student progress that affects retention, in addition to the other program requirements listed here. The student will make a public presentation of the thesis research either on campus at Western Washington University or Shannon Point and will participate in an oral exam given by the thesis committee.

For further information, write or consult the Huxley College Graduate Program Coordinator, Western Washington University, Bellingham, WA 98225-9079, 360-650-3646.

**Specialization courses:**

- ESCI 410 - Forest-Fish Interactions
- ESCI 411 - Forest and Fish Assessment
- ESCI 421 - Fisheries Management Lab
- ESCI 425 - Environmental Biology of Fishes
- ESCI 428 - Freshwater Algae Bioindicators
- ESCI 431 - Watershed Biogeochemistry
- ESCI 463 - Wetlands for Wastewater Treatment
- ESCI 500 (when freshwater topic)
- ESCI 502 - Experimental Design
- ESCI 503 - Statistical Ecology
- ESCI 517 (when freshwater topic)
- ESCI 522 - Estuarine Ecology
- ESCI 529 - Advanced Stream Ecology
- ESCI 530 - Advanced Limnology

## ENVIRONMENTAL SCIENCES

- ESCI 533 - Advanced Population Biology
- ESCI 540 - Wetlands Ecology
  - ESCI 545 (when freshwater topic)
- ESCI 559 - Aquatic Toxicology
  - ESCI 597 (when freshwater topic)
- ESCI 599 - Graduate Environmental Studies Seminar (when freshwater topic)

### **Environmental Science, Marine and Estuarine Science (MES), Thesis, MS**

*Huxley College of the Environment*

#### **Graduate Faculty**

**Abel, Troy D.**, PhD, environmental policy, conservation politics, civic environmentalism, policy analysis, globalization and environment.

**Bach, Andrew J.**, PhD, physical geography, geomorphology, soils and weathering, geoarcheology.

**Berardi, Gigi**, PhD, resources management, agroecology, international community development, food security, all-hazards planning.

**Bingham, Brian L.**, PhD, invertebrate biology, marine ecology, experimental design.

**Bodensteiner, Leo R.**, PhD, fish ecology.

**Buckley, Patrick H.**, PhD, economic and development geography, quantitative methods, GIS, environmental issues in Japan and China, quality of life, transborder environmental issues.

**Bunn, Andrew G.**, PhD, climate change, paleoecology, energy, ecological models.

**Bunn, Rebecca**, PhD, belowground ecology, toxicology, restoration, energy, the application of statistics.

**Helfield, James M.**, PhD, ecology of rivers and riparian forests, terrestriaquatic ecosystem linkages, watershed management and restoration.

**Hollenhorst, Steven**, PhD, social dimensions of natural resources, wilderness and protected area policy and management.

**Homann, Peter S.**, PhD, biogeochemistry, soil sciences, forest ecology.

**Landis, Wayne G.**, PhD, environmental toxicology, population biology, risk assessment.

**Love, Brooke**, PhD, geochemistry, ocean acidification, hydrothermal systems, chemistry of volatiles in the marine environment.

**Matthews, Robin A.**, PhD, freshwater ecology, aquatic toxicology, statistical ecology.

**McLaughlin, John F.**, PhD, terrestrial ecology, population biology, conservation biology.

**Medler, Michael J.**, PhD, biogeography, GIS, remote sensing, forest fire and wilderness management.

**Melious, Jean O.**, JD, environmental and land use law and policy, international environmental policy.

**Miles, John C.**, PhD, environmental education and history, public lands management.

**Miles, Scott B.**, PhD, sustainable development for risk reduction, social vulnerability, community disaster recovery, local self-reliance.

**Mookherjee, Debnath**, PhD, comparative urbanization, regional development and planning, developing countries.

**Myers, O. Eugene**, PhD, environmental education, conservation psychology, human ecology, environmental history and ethics.

**Rossiter, David A.**, PhD, Canada, cultural-historical geographies, political ecologies.

**Rybczyk, John M.**, PhD, wetland ecology and management, ecosystem modeling, global climate change.

**Shull, David H.**, PhD, structure and function of marine benthic communities, pollution and marine ecosystems.

**Sofield, Ruth M.**, PhD, aquatic toxicology, biochemical and genetic toxicology, environmental chemistry.

**Stangl, Paul A.**, PhD, pedestrian planning, new urbanism, urban landscapes, memory and meaning; Europe and Berlin.

**Sulkin, Stephen D.**, PhD, invertebrate biology, larval ecology.

**Wallin, David O.**, PhD, terrestrial ecology, forest ecosystems.

**Wang, Grace A.**, PhD, natural resource policy, cultural resources management, community-based forestry.  
**Zaferatos, Nicholas C.**, PhD, community and environmental planning, sustainable development, European environmental policy, Native American political development.  
 Program Advisor: Dr. Ruth Sofield, Environmental Studies 440

### Program Description

The MS in environmental science is a two-year curriculum which draws upon course work from Huxley College and the other colleges of WWU. It is directed toward the development and integration of scientific information in order to describe, predict and/or manage natural systems, and to assess human impacts on those systems. **The Marine and Estuarine Science (MES) option** is offered through Huxley College of the Environment, the Department of Biology, and Shannon Point Marine Center. Students graduating from the program will have an understanding of biota and topical management issues, and fundamental biological and chemical oceanographic processes. Curriculum Coordinator: Dr. Brian L. Bingham

### Goals

The program prepares students to describe, predict and/or manage natural systems and to assess human impacts on those systems.

### Prerequisites

A bachelor's degree and college-level course work including a minimum of one year of general chemistry plus one quarter or semester of organic chemistry, one year of general biology, one course each in ecology, calculus and statistics.

### Application Information

**Admit Quarter:** Students will be admitted into the MS in environmental science program fall quarter only.  
**Deadlines:** Because maximum student enrollment is limited, all applicants are strongly encouraged to submit application materials by February 1. Review of materials will begin after that date and will continue until the enrollment limit is reached or on June 1, whichever comes first.  
**TA Deadline:** To be considered for a graduate teaching assistantship, applicants should submit their application materials by February 1 and indicate in the statement of purpose how the prerequisites listed above have or will be met before starting the program.  
**Specific Test Requirements:** For all options: Graduate Record Exam, General Test. Applicants with advanced degrees are not required to submit GRE scores.

#### Supporting Materials:

- An application for admission into the MS program in environmental science must include a one- to two-page statement of purpose indicating which specialization the applicant is most interested in, explaining why the applicant wishes to pursue graduate studies in environmental science, and what future expectations he or she has for the MS degree.
- The statement may indicate a preferred faculty advisor; students are encouraged to review faculty research interests as described on the Huxley website, [http://www.wvu.edu/huxley/facstaff/facstaffdirectories/hux\\_deptenvscience.shtml](http://www.wvu.edu/huxley/facstaff/facstaffdirectories/hux_deptenvscience.shtml), prior to contacting potential faculty advisors; students are admitted into the program only upon agreement of potential faculty advisors.

Program Requirements (45 to 69 credits)

a minimum of 45 credits are required, including:

- ESCI 501 (3);
- 30 credits of course work, including three courses from the area of specialization, or course substitutions, under advisement;



## ENVIRONMENTAL SCIENCES

- 12 credits of ESCI 690 (thesis).

Ten credits or less of approved 400-level course work may be included in the program. No more than four elective credits of ESCI 595 (Teaching Practicum) may be used toward the MS degree in environmental science. Each candidate should note that the department has an annual review of student progress that affects retention, in addition to the other program requirements listed here. The student will make a public presentation of the thesis research either on campus at Western Washington University or Shannon Point and will participate in an oral exam given by the thesis committee.

For further information, write or consult the Huxley College Graduate Program Coordinator, Western Washington University, Bellingham, WA 98225-9079, 360-650-3646.

### Specialization courses:

- ESCI 421 - Fisheries Management Lab
- ESCI 425 - Environmental Biology of Fishes
- ESCI 426 - Marine Invertebrates and Their Environment
- ESCI 432 - Topics in Marine Ecology
- ESCI 463 - Wetlands for Wastewater Treatment
- ESCI 491 - Oceanography of Puget Sound  
ESCI 500 (when marine topic)
- ESCI 502 - Experimental Design
- ESCI 503 - Statistical Ecology  
ESCI 517 (when marine topic)
- ESCI 521 - Biological Oceanography
- ESCI 522 - Estuarine Ecology
- ESCI 533 - Advanced Population Biology
- ESCI 540 - Wetlands Ecology
- ESCI 542 - Remote Sensing  
ESCI 545 (when marine topic)  
ESCI 597 (when marine topic)
- ESCI 599 - Graduate Environmental Studies Seminar (when marine topic)
- BIOL 508 - Advanced Topics in Marine Biology  
BIOL 545 (when marine topic)

### Additional requirement in MES option:

- BIOL 505 - Current Research in Marine Science  
Visit the Marine and Estuarine Science graduate program website,  
<http://www.wvu.edu/mesp/index.shtml>, for a complete list of participating faculty and their research interests.

## **Environmental Science, Regional, Global and Terrestrial Ecosystems, Thesis, MS**

*Huxley College of the Environment*

### **Graduate Faculty**

**Abel, Troy D.**, PhD, environmental policy, conservation politics, civic environmentalism, policy analysis, globalization and environment.

**Bach, Andrew J.**, PhD, physical geography, geomorphology, soils and weathering, geoarcheology.

**Berardi, Gigi**, PhD, resources management, agroecology, international community development, food security, all-hazards planning.

**Bingham, Brian L.**, PhD, invertebrate biology, marine ecology, experimental design.

**Bodensteiner, Leo R.**, PhD, fish ecology.

**Buckley, Patrick H.**, PhD, economic and development geography, quantitative methods, GIS, environmental issues in Japan and China, quality of life, transborder environmental issues.

**Bunn, Andrew G.**, PhD, climate change, paleoecology, energy, ecological models.

**Bunn, Rebecca**, PhD, belowground ecology, toxicology, restoration, energy, the application of statistics.

**Helfield, James M.**, PhD, ecology of rivers and riparian forests, terrestrialaquatic ecosystem linkages, watershed management and restoration.

**Hollenhorst, Steven**, PhD, social dimensions of natural resources, wilderness and protected area policy and management.

**Homann, Peter S.**, PhD, biogeochemistry, soil sciences, forest ecology.

**Landis, Wayne G.**, PhD, environmental toxicology, population biology, risk assessment.

**Love, Brooke**, PhD, geochemistry, ocean acidification, hydrothermal systems, chemistry of volatiles in the marine environment.

**Matthews, Robin A.**, PhD, freshwater ecology, aquatic toxicology, statistical ecology.

**McLaughlin, John F.**, PhD, terrestrial ecology, population biology, conservation biology.

**Medler, Michael J.**, PhD, biogeography, GIS, remote sensing, forest fire and wilderness management.

**Melious, Jean O.**, JD, environmental and land use law and policy, international environmental policy.

**Miles, John C.**, PhD, environmental education and history, public lands management.

**Miles, Scott B.**, PhD, sustainable development for risk reduction, social vulnerability, community disaster recovery, local self-reliance.

**Mookherjee, Debnath**, PhD, comparative urbanization, regional development and planning, developing countries.

**Myers, O. Eugene**, PhD, environmental education, conservation psychology, human ecology, environmental history and ethics.

**Rossiter, David A.**, PhD, Canada, cultural-historical geographies, political ecologies.

**Rybczyk, John M.**, PhD, wetland ecology and management, ecosystem modeling, global climate change.

**Shull, David H.**, PhD, structure and function of marine benthic communities, pollution and marine ecosystems.

**Sofield, Ruth M.**, PhD, aquatic toxicology, biochemical and genetic toxicology, environmental chemistry.

**Stangl, Paul A.**, PhD, pedestrian planning, new urbanism, urban landscapes, memory and meaning; Europe and Berlin.

**Sulkin, Stephen D.**, PhD, invertebrate biology, larval ecology.

**Wallin, David O.**, PhD, terrestrial ecology, forest ecosystems.

**Wang, Grace A.**, PhD, natural resource policy, cultural resources management, community-based forestry.

**Zaferatos, Nicholas C.**, PhD, community and environmental planning, sustainable development, European environmental policy, Native American political development.

Program Advisor: Dr. Ruth Sofield, Environmental Studies 440

### Program Description

The MS in environmental science is a two-year curriculum which draws upon course work from Huxley College and the other colleges of WWU. It is directed toward the development and integration of scientific information in order to describe, predict and/or manage natural systems, and to assess human impacts on those systems. This specialization focuses on terrestrial ecosystems and on large-scale regional and global environmental problems. Examination of natural ecosystems, resources and the effects of large-scale change.

### Goals

The program prepares students to describe, predict and/or manage natural systems and to assess human impacts on those systems.

### Prerequisites

A bachelor's degree and college-level course work including a minimum of one year of general chemistry plus one quarter or semester of organic chemistry, one year of general biology, one course each in ecology, calculus and statistics.

## Application Information

**Admit Quarter:** Students will be admitted into the MS in environmental science program fall quarter only.

**Deadlines:** Because maximum student enrollment is limited, all applicants are strongly encouraged to submit application materials by February 1. Review of materials will begin after that date and will continue until the enrollment limit is reached or on June 1, whichever comes first.

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**Specific Test Requirements:** For all options: Graduate Record Exam, General Test. Applicants with advanced degrees are not required to submit GRE scores.

### Supporting Materials:

- An application for admission into the MS program in environmental science must include a one- to two-page statement of purpose indicating which specialization the applicant is most interested in, explaining why the applicant wishes to pursue graduate studies in environmental science, and what future expectations he or she has for the MS degree.
- The statement may indicate a preferred faculty advisor; students are encouraged to review faculty research interests as described on the Huxley website, [http://www.wvu.edu/huxley/facstaff/facstaffdirectories/hux\\_deptenvscience.shtml](http://www.wvu.edu/huxley/facstaff/facstaffdirectories/hux_deptenvscience.shtml), prior to contacting potential faculty advisors; students are admitted into the program only upon agreement of potential faculty advisors.

### Program Requirements (45 to 69 credits)

Minimum of 45 credits are required, including:

- ESCI 501 (3);
- 30 credits of course work, including three courses from the area of specialization, or course substitutions, under advisement;
- 12 credits of ESCI 690 (thesis).

Ten credits or less of approved 400-level course work may be included in the program. No more than four elective credits of ESCI 595 (Teaching Practicum) may be used toward the MS degree in environmental science. Each candidate should note that the department has an annual review of student progress that affects retention, in addition to the other program requirements listed here. The student will make a public presentation of the thesis research either on campus at Western Washington University or Shannon Point and will participate in an oral exam given by the thesis committee.

For further information, write or consult the Huxley College Graduate Program Coordinator, Western Washington University, Bellingham, WA 98225-9079, 360-650-3646.

### Specialization courses:

- ESCI 408 - Field Methods in Wildlife Ecology
- ESCI 410 - Forest-Fish Interactions
- ESCI 411 - Forest and Fish Assessment
- ESCI 423 - Past Environments of the Pacific Northwest
- ESCI 431 - Watershed Biogeochemistry
- ESCI 500 (when terrestrial ecosystem topic)
- ESCI 502 - Experimental Design
- ESCI 503 - Statistical Ecology
- ESCI 507 - Advanced Forest Ecology
- ESCI 517 (when terrestrial ecosystem topic)
- ESCI 523 - Past Environments of the Pacific Northwest
- ESCI 533 - Advanced Population Biology

- ESCI 535 - Advanced Landscape Ecology
- ESCI 536 - Environmental Impact Assessment Practicum
- ESCI 539 - Advanced Conservation of Biological Diversity
- ESCI 542 - Remote Sensing
- ESCI 545 (when terrestrial ecosystem topic)
- ESCI 562 - Advanced Air Pollution
- ESCI 590 - Advanced Environmental Risk Assessment
- ESCI 592 - Climate Change
- ESCI 597 (when terrestrial ecosystem topic)
- ESCI 599 - Graduate Environmental Studies Seminar (when terrestrial ecosystem topic)
- EGEO 504 - Geographic Methods and Techniques
- EGEO 535 - Environmental Problems and Regional Development
- EGEO 552 - Advanced GIS

## Minor

### Energy Policy Minor (see Environmental Studies Department)

Energy Policy Minor (see Environmental Studies Department)

### Environmental Science Minor

Department of Environmental Sciences, Huxley College of the Environment

#### 24-29 credits

#### Introduction/What is the Study of Environmental Science?

#### Why Consider an Environmental Science Minor?

#### Contact Information

##### Department Chair

John Rybczyk  
Environmental Studies 336  
360-650-2081  
John.Rybczyk@wwu.edu

##### Huxley College Admissions Advisor

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

#### Sample Careers

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

# ENVIRONMENTAL SCIENCES

## Requirements

- ESCI 101 - Environmental Studies: A Scientific Approach
- ESCI 302 - Environmental Pollution
- ESCI 325 - Fundamentals of Ecology
- One lab/lecture course or combination of courses from:
  - ESCI 321 - Oceanography and
  - ESCI 322 - Oceanography Laboratory
  - ESCI 361 - Water Quality and
  - ESCI 362 - Water Quality Lab
  - ESCI 407 - Forest Ecology
  - ESCI 408 - Field Methods in Wildlife Ecology
  - ESCI 410 - Forest-Fish Interactions and
  - ESCI 411 - Forest and Fish Assessment
  - ESCI 421 - Fisheries Management Lab and
  - ESCI 425 - Environmental Biology of Fishes
  - ESCI 423 - Past Environments of the Pacific Northwest
  - ESCI 426 - Marine Invertebrates and Their Environment
  - ESCI 429 - Stream Ecology
  - ESCI 430 - Limnology and Limnology Lab
  - ESCI 440 - Wetlands Ecology
  - ESCI 442 - Introduction to Remote Sensing
  - ESCI 455 - Environmental Toxicology I and
  - ESCI 457 - Environmental Toxicology Laboratory I
  - ESCI 456 - Environmental Toxicology II and
  - ESCI 458 - Environmental Toxicology Laboratory II
- One course from:
  - ESCI 321 - Oceanography
  - ESCI 435 - Landscape Ecology
  - ESCI 492 - Climate Change
  - ENVS 325 - Geography of Landforms
  - ENVS 326 - Climatology
- Electives under advisement (6 credits)
  - BIOL 326 - Ecology Laboratory
  - BIOL 340 - Biometrics
  - ESCI 300- and 400-levelMaximum 1 course allowed from:
  - ENVS 320 - Introduction to Geographic Information Systems
  - ENVS 326 - Climatology
  - ENVS 327 - The Soil Environment

## Environmental Sciences Courses

### **ESCI 101 - Environmental Studies: A Scientific Approach**

An introduction to environmental studies which stresses a scientific approach toward

understanding the nature and scope of contemporary problems in man's environment. The course reflects application of physical, chemical, biological and geologic principles to define

ecological change, both natural and man-made.

Credits: 3

GUR Attributes: SCI

### **ESCI 204 - The Oceans: Topics in Marine Science**

Introduction to marine life and environments from the polar regions to the tropics and from the near surface to the ocean depths. Examines the role of the ocean in controlling climate and supporting a great diversity of life forms. Considers all the major marine ecosystems, their use by humans and the impacts of humans.

**Prerequisites & Notes:** 2 quarters college-level natural science courses; MATH 112

Credits: 4

GUR Attributes: SCI

### **ESCI 205 - Distinguished Scholar Program Seminar: Ds**

Seminar and field course work with various Environmental topics. Equivalent to ESTU 205 and repeatable with different topics up to 4 credits combined. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College Distinguished Scholars Program

Credits: 1

Grade Mode: S/U

### **ESCI 302 - Environmental Pollution**

Examination of human-induced environmental perturbations of air, land and water occurring on local, regional and global scales.

**Prerequisites & Notes:** CHEM 115 or CHEM 121; 1 quarter of biology; MATH 114

Credits: 4

### **ESCI 310 - Environmental Systems**

Interaction of biotic systems with earth's physical systems; principles of ecology and natural systems; ecosystem structure, function and management. Should not be taken by students who have completed or intend to enroll in ESCI 325 or BIOL 325.

**Prerequisites & Notes:** CHEM 121; 1 quarter Biology; MATH 114

Credits: 4

### **ESCI 315 - Art, Science and Ethics of Flyfishing**

The goals of this course are to learn how to fly fish and to use fly fishing as a window into environmental studies and, more specifically, into the structure and function of river ecosystems and how people interact with them. Class format includes lectures, discussions, and laboratory and field exercises to gain insight into stream ecology and to understand relations of science, ethics, and environmental management. Offered summer only.

**Prerequisites & Notes:** Knowledge of ecology or permission of instructor.

Credits: 3

### **ESCI 316 - Advanced Flyfishing: river stewardship, reflection, and native trout**

Students will be immersed in a wilderness setting for one intensive week of hands-on study, following classroom preparation. Classroom preparation includes lectures, organism identification, flyfishing techniques, and fly tying as background for the field experience. Selections from flyfishing literature will be used to discuss the reflective nature and ethics of fly fishing and conservation with a focus on native trout. Students will learn to identify freshwater fishes of the Pacific Northwest and will be collecting and identifying aquatic insects at three long-term monitoring sites that will be surveyed by subsequent classes to assess environmental status. In conjunction with all of these activities, students will be instructed in journaling and will be expected to use these to record observations and reflections.

**Prerequisites & Notes:** ESCI 315 or permission of instructor.

Credits: 2

### **ESCI 321 - Oceanography**

Principles of oceanography, with emphasis on a description of the marine environment as an entity. Physics, chemistry and biology of the ocean.

**Prerequisites & Notes:** 2 quarters Biology; CHEM 121; MATH 115; Physics recommended

Credits: 4

## ENVIRONMENTAL SCIENCES

### **ESCI 322 - Oceanography Laboratory**

A laboratory course supplementing lectures in oceanography, especially ESCI 321 and GEOL 340. Emphasis on the coastal ocean as ecological habitat, and physical oceanography - waves, tides and currents.

**Prerequisites & Notes:** pre/corequisite: ESCI 321  
Credits: 2

### **ESCI 325 - Fundamentals of Ecology**

Investigation of the complex interactions of organisms with each other and with their physical surroundings, explored in the context of populations, communities, ecosystems and landscapes.

**Prerequisites & Notes:** BIOL 204, BIOL 205 and BIOL 206; CHEM 121, CHEM 122 and CHEM 123  
Credits: 3

### **ESCI 328 - Introduction to Ecosystem Management**

Identification of non-market ecosystem values required of ecosystem management. Site specific inventory and assessment of resource values, methods of collecting, storing, displaying and interpretation of resource data. The use of GIS as a resource management tool. Laboratory time will focus on identifying resource values of parks, natural preserves and other areas with high resource values. Course offered only at Huxley on the Peninsulas.

**Prerequisites & Notes:** ESCI 302 or ESCI 310 or one year of biology or instructor permission  
Credits: 5

### **ESCI 330 - Natural History of the Pacific Northwest**

A field-oriented introduction to the geology, climate and ecosystems of the Pacific Northwest, with a focus on the biology and the ecology of important organisms.

**Prerequisites & Notes:** ESCI 310 or one year of biology or instructor permission  
Credits: 4

### **ESCI 333 - Introduction to Environmental Toxicology**

Explore the foundations of how environmental pollutants affect biological health. Topics include source and exposure routes of pollutants, basics of quantitative toxicology, effects of exposures, risk perception, and environmental regulations as they relate to toxicology.

**Prerequisites & Notes:** One course general biology, one course general chemistry, or instructor permission.  
Credits: 4

### **ESCI 340 - Biostatistical Analysis**

Study, at an introductory and intermediate level, of data analysis and statistical tests commonly used in the biological and environmental sciences. Descriptive statistics, hypothesis testing, analysis of variance, regression and correlation, experimental design. Calculator required.

**Prerequisites & Notes:** BIOL 204, BIOL 205 and BIOL 206; CHEM 121, CHEM 122 and CHEM 123.  
Credits: 5

### **ESCI 361 - Water Quality**

Water quality principles, problems, and issues; standard methods of assessing water quality; practical approaches in solving water-related problems. Includes laboratory.

**Prerequisites & Notes:** CHEM 121, CHEM 122, CHEM 123 and BIOL 204, BIOL 205, BIOL 206; or CHEM 121, BIOL 101, and ESCI 302 or ESCI 310 or ESCI 392.  
Credits: 5

### **ESCI 362 - Water Quality Lab**

Standard laboratory methods of water quality analysis including physical parameters, dissolved oxygen, biological oxygen demand, phosphorus, nitrogen, total and fecal coliform, and heavy metals. Techniques include Winkler titrations, spectrophotometric methods, bioassays, linear regression analysis, and use of computer models.

**Prerequisites & Notes:** ESCI 361 or concurrent; or permission of instructor.  
Credits: 2

**ESCI 380 - Energy and Environment**

How do our choices in energy production impact the global and local environment? What does the future hold in terms of human use of energy? This class emphasizes the physical principles behind energy and the effects of energy on the environment. We will explore the interdependence of world economies and environment as well as look at individual opinions and choices on energy related issues.

**Prerequisites & Notes:** CHEM 121, and MATH 114  
Credits: 3

**ESCI 392 - Introduction to Global Change**

There are six and a half billion people and we are changing the global environment at a pace unknown to history. We will unravel some of the linkages between biophysical systems, ecological responses, and human activities. We will cover changes to the climate, but also take a step back to appreciate the incredible suite of simultaneous global changes taking place in biotic diversity, hydrologic and chemical cycles, and human assimilation of Earth's energy.

**Prerequisites & Notes:** CHEM 121, BIOL 101, MATH 114  
Credits: 3

**ESCI 402 - Topics in Environmental Studies**

Presentations by WWU faculty, researchers from other institutions, and Huxley College graduate students on a wide variety of topics in environmental studies. A written critique of selected presentations required. Questions, discussions and interactions encouraged. Informal brown bag lunch format. Repeatable to a maximum of 3 cr. S/U grading.

**Prerequisites & Notes:** Huxley major  
Credits: 1  
Grade Mode: S/U

**ESCI 407 - Forest Ecology**

Ecology and analysis of forest ecosystems. Investigates the interactions of ecosystem components, specifically soil, plant and animal processes, with an emphasis on Pacific Northwest forests. Includes investigative field and lab studies

of local ecosystems.

**Prerequisites & Notes:** ESCI 325 or BIOL 325; ESCI 340 or BIOL 340; or equivalent  
Credits: 5

**ESCI 408 - Field Methods in Wildlife Ecology**

Rationale and practice of methods to study vertebrates in the field. Emphasis on terrestrial environments. Students design and conduct field research projects.

**Prerequisites & Notes:** ESCI 325 or BIOL 325; ESCI 340; or equivalent  
Credits: 5

**ESCI 410 - Forest-Fish Interactions**

Examination of the ways in which forestry and fisheries management practices interact, with emphasis on Pacific Northwest ecosystems. Topics covered include basic principles of watershed and riparian ecology, habitat requirements and ecology of salmonid fishes, effects of forest management and other land use practices on stream habitat, and strategies for mitigating adverse impacts.

**Prerequisites & Notes:** ESCI 310 or ESCI 325 or BIOL 325, or instructor permission.  
Credits: 3

**ESCI 411 - Forest and Fish Assessment**

A project-oriented course based on laboratory and field investigations of riparian and in-stream habitats and their fish communities. Small groups will undertake investigations of local streams through the use of commonly accepted assessment practices.

**Prerequisites & Notes:** Co-req ESCI 410 or permission of instructor.  
Credits: 2

**ESCI 421 - Fisheries Management Lab**

Field and laboratory experience in typical fisheries management techniques. Especially directed toward marine and freshwater sampling, population identification and quantification, and estimation of management parameters.

**Prerequisites & Notes:** ESCI 325.



# ENVIRONMENTAL SCIENCES

Credits: 2

## **ESCI 423 - Past Environments of the Pacific Northwest**

Introduction to the concepts of paleoecology techniques used to study ancient environmental and ecosystems and current research. Focus on changes in the northwestern United States during the Holocene. Lecture/lab format. Students will reconstruct past plant assemblages of the Pacific Northwest, examine fire regimes and build tree-ring chronologies using ancient trees.

**Prerequisites & Notes:** CHEM 121, CHEM 122, CHEM 123; BIOL 204, BIOL 205, BIOL 206; MATH 124.

Credits: 4

## **ESCI 425 - Environmental Biology of Fishes**

An examination of the physiological, morphological and behavioral adaptations of fishes to the wide array of aquatic environments as demonstrated by various taxonomic and ecological groups.

**Prerequisites & Notes:** ESCI 325 or BIOL 325

Credits: 3

## **ESCI 426 - Marine Invertebrates and Their Environment**

Classroom and field study of marine invertebrates and adaptation to their environment. Emphasis on identification and study of the diverse Puget Sound marine fauna.

**Prerequisites & Notes:** BIOL 206 or equivalent.

Credits: 5

## **ESCI 428 - Freshwater Algae Bioindicators**

Introduction to the taxonomy and ecology of freshwater algae, with an emphasis on the role of freshwater algae as bioindicators of environmental pollution.

**Prerequisites & Notes:** ESCI 325 or BIOL 325 or permission of instructor.

Credits: 4

## **ESCI 429 - Stream Ecology**

Ecology and analysis of streams with emphasis on physical and chemical properties in relation to biotic communities. Processing of organic matter

by stream invertebrates and fish communities. Perturbation by high organic loading or chemical pollutants and recovery processes. Reservoirs as hybrid systems. Field and laboratory exercises in sampling and analysis of stream ecosystems.

**Prerequisites & Notes:** ESCI 325 or BIOL 325; ESCI 361 or concurrent; ESCI 362 or concurrent.  
Credits: 5

## **ESCI 430 - Limnology and Limnology Lab**

Ecology and analysis of lakes and standing water bodies, with emphasis on the physical, chemical and biological factors that determine biological productivity. Human impacts on lakes.

**Prerequisites & Notes:** ESCI 325 or BIOL 325; ESCI 361 and ESCI 362.

Credits: 5

## **ESCI 431 - Watershed Biogeochemistry**

Transfer, cycling, and interaction of carbon, nutrients, and other elements within and between terrestrial and aquatic ecosystems. Physical, chemical and biological influences on transfers. Computer simulation modeling of processes in an ecosystem context.

**Prerequisites & Notes:** ESCI 325 or BIOL 325; ESCI 361 or ENVS 327

Credits: 3

## **ESCI 432 - Topics in Marine Ecology**

Primary literature is used to introduce students to important and current topics in marine ecology.

**Prerequisites & Notes:** ESCI 321

Credits: 4

## **ESCI 433 - Population Biology**

Introduction to theory and application of population biology, with emphasis on population ecology. Study of structure, distribution, and dynamics of populations. Applications to population conservation and management.

**Prerequisites & Notes:** ESCI 325 or BIOL 325; MATH 124; ESCI 340; MATH 125 recommended.

Credits: 3

## **ESCI 435 - Landscape Ecology**

The study of landscape patterns across temporal and spatial scales; emphasis on their organization, functional interactions and dynamics. Application of landscape principles to land management problems.

**Prerequisites & Notes:** ESCI 325 or BIOL 325; ESCI 340 or BIOL 340; or equivalent  
Credits: 4

### **ESCI 436 - Environmental Impact Assessment**

Objective evaluation and formal description of a real natural system or geographic region. Class preparation of a unified document summarizing physical, biological and social aspects of a study area. Review of pertinent laws and EIS documents. Also offered as ESTU 436.

**Prerequisites & Notes:** Senior status.  
Credits: 5

### **ESCI 439 - Conservation of Biological Diversity**

Examination of causes and consequences of declines in biodiversity due to human activities. Review of conflicts arising from multiple-use management of natural resources. Survey and evaluation of conservation efforts directed at single species and at ecosystems. Optional field trips.

**Prerequisites & Notes:** ESCI 325 or BIOL 325  
Credits: 4

### **ESCI 440 - Wetlands Ecology**

An ecosystem approach to investigating the hydrologic, chemical and biological interactions that are unique to wetland systems. Students will take several field trips to bogs, swamps, marshes and estuaries in the area to become familiar with diverse wetland habitats and to illustrate the principals covered in class.

**Prerequisites & Notes:** ESCI 340 and ESCI 325 or concurrent  
Credits: 5

### **ESCI 442 - Introduction to Remote Sensing**

An introduction to remote sensing concepts and techniques for monitoring the earth's surface features. Special emphasis on mapping land use and land cover and on quantifying aspects of

vegetation structure and composition. Labs are based on the use of data from airborne and spaceborne multispectral scanners and LIDAR.

**Prerequisites & Notes:** Completion of a 300-level course in either ESCI, ESTU, EGEO, ENVS, BIOL, GEOL, ANTH, or permission of instructor.  
Credits: 5

### **ESCI 443 - Ecological Images**

Creation, documentation and presentation of high-quality digital images for communicating ecological concepts, using hand-held camera, light microscope, and scanning electron microscope.

**Prerequisites & Notes:** One of: ESCI 302, or ESCI 310, or ESCI 325, or ESCI 392 or BIOL 325.  
Credits: 3

### **ESCI 444 - Biogeochemistry of Marine Sediments**

Introduces concepts in chemical oceanography and methodology of studying sediments and their chemistry.

**Prerequisites & Notes:** ESCI 321  
Credits: 4

### **ESCI 455 - Environmental Toxicology I**

Physiological and biochemical effects of common pollutants found in our environment. Mechanism of action of individual pollutants, including cellular damage at molecular level.

**Prerequisites & Notes:** ESCI 302 or ESCI 333 or permission of instructor.  
Credits: 4

### **ESCI 456 - Environmental Toxicology II**

Second course in environmental toxicology series. Covers toxicity testing, biomonitoring, data analysis and environmental risk assessment.

**Prerequisites & Notes:** ESCI 455 or instructor permission  
Credits: 4

### **ESCI 457 - Environmental Toxicology Laboratory I**

Protocols and procedures for evaluating the toxicity of chemicals and environmental samples using a

## ENVIRONMENTAL SCIENCES

variety of organisms and end point responses. Emphasis on organisms at the biochemical level. Introduction to quality assurance/quality control principles.

**Prerequisites & Notes:** ESCI 455 or concurrent.  
Credits: 4

### **ESCI 458 - Environmental Toxicology Laboratory II**

Protocols and procedures for evaluating toxicological effects of chemicals and other stressors on aquatic and terrestrial organisms, measuring a variety of responses besides mortality. Emphasis on impacts at the organism-level and applying results to determine short and long-term effects at populations and community levels.

**Prerequisites & Notes:** ESCI 456 or concurrent or permission of instructor.  
Credits: 4

### **ESCI 459 - Aquatic Toxicology**

Effects of toxic compounds on aquatic organisms. Acute and chronic responses of organisms to aquatic toxicants, and current literature on population, community and ecosystem aquatic toxicology.

**Prerequisites & Notes:** ESCI 455 or ESCI 456 or a minimum of 4 credits 400-level aquatic ecology courses  
Credits: 3

### **ESCI 460 - Contaminant Movement in the Environment**

Physical, chemical, and biological processes that govern movement of contaminants in the environment and ultimate fate of these contaminants. Aspects of these processes that will be investigated include concentration, persistence, reactivity and partitioning among environmental media (air, water, soil, sediment and biota). These processes will be used as a basis of simple mathematical expressions used to determine contaminant behavior in the environment. Environmental risks to biological receptors will also be investigated.

**Prerequisites & Notes:** Completion of Huxley

Environmental Science prerequisites; ESCI 361; CHEM 251 or (CHEM 351 and CHEM 352); or permission of instructor.  
Credits: 4

### **ESCI 462 - Air Pollution**

Types of air pollutants, their measurement and effects. Removal of air pollutants from gas streams. Air pollution meteorology and dispersion. Air pollution laws and standards. Air resources management.

**Prerequisites & Notes:** CHEM 121; ESCI 302.  
Credits: 4

### **ESCI 463 - Wetlands for Wastewater Treatment**

This class will begin with brief introductions to conventional wastewater treatment methods (primary, secondary and tertiary) and chemistry as it relates to wetlands and wastewater treatment. Through assigned readings, we will then examine the use of both natural and constructed wetlands for the treatment of municipal wastewater, acid mine drainage, stormwater runoff, and agricultural wastewater. Each student will also be responsible for carrying out a research project using the campus stormwater wetland as a study site.

**Prerequisites & Notes:** Huxley or MESP major, or instructor permission  
Credits: 3

### **ESCI 470 - Ecological Restoration**

Investigates the theory and practice of ecological restoration, including methods for evaluating the success of restoration projects. Incorporates physical and ecological as well as economic and cultural considerations. Students work in groups on actual restoration projects.

**Prerequisites & Notes:** Senior status.  
Credits: 5

### **ESCI 480 - Applications in Energy Production**

This class is designed to bring students into contact with the industries where energy is produced. In this field-based class we will visit conventional and alternative energy facilities and learn how energy is produced and delivered to consumers. We will pay particular attention to the

basic physics, chemistry and biology of energy systems as well as their impacts on the environment.

**Prerequisites & Notes:** ESCI 380 or ESCI 329.  
Credits: 4

#### **ESCI 490 - Environmental Risk Assessment**

Principles and methods of quantitative environmental risk assessment, data analysis and risk communication.

**Prerequisites & Notes:** Senior status. One 300 or 400 level toxicology course strongly recommended.  
Credits: 4

#### **ESCI 491 - Oceanography of Puget Sound**

Focuses on estuarine circulation and its relation to biological and chemical processes in Puget Sound. Students conduct a capstone research project integrating oceanography and public policy. As a capstone, course is for Seniors only.

**Prerequisites & Notes:** ESCI 321  
Credits: 4

#### **ESCI 492 - Climate Change**

Study the basics of climate change science at global and regional scales. We will evaluate the probable impact on natural ecosystems, resources (food, water and energy) and society.

**Prerequisites & Notes:** BIOL 204, BIOL 205, BIOL 206; CHEM 121, CHEM 122, CHEM 123; MATH 124  
Credits: 4

#### **ESCI 493 - Environmental Impact Assessment**

Environmental Impact Assessment requires a range of professional qualifications and involves a wide spectrum of disciplines and methodologies. This interdisciplinary capstone course involves class preparation of an impact assessment of a local project, summarizing physical, biological and social aspects of a study area. Review of pertinent laws and EIS documents.

**Prerequisites & Notes:** Huxley major and senior status.

Credits: 5

#### **ESCI 494 - Marine Conservation**

Principles of marine conservation including the properties of marine ecosystems, the scientific basis of our understanding of these systems, and strategies for resource protection through governance and community action. Students will engage with local conservation groups through guest speakers and preparation of their own case studies as a capstone project. Repeatable up to 8 credits, including original course. Repeatable to a maximum of 8 credits, including original course.

**Prerequisites & Notes:** Huxley major and senior status.  
Credits: 4

#### **ESCI 495 - Teaching Practicum**

Experience in teaching a lecture or laboratory course in environmental sciences. Repeatable to a maximum of 4 cr. S/U grading.

**Prerequisites & Notes:** relevant course work; instructor permission  
Credits: 1-3  
Grade Mode: S/U

#### **ESCI 498A - Senior Thesis**

The Senior thesis makes an original contribution to knowledge by using primary research methods of an academic discipline. In cooperation with a faculty adviser, skills are developed in synthesizing prior knowledge, formulating a question or hypothesis, gathering new data or identifying existing information, analyzing results and drawing conclusions. The approach may be theoretical, historical, laboratory or field based. Two bound copies of the senior thesis, in an approved format, are submitted by the student, and one of them is kept in Wilson Library. Repeatable to a maximum of 15 credits.

Credits: 1-15

#### **ESCI 498B - Internship**

The internship provides the student with a supervised work and learning experience in a paid employment or unpaid voluntary, environmentally relevant, professional setting. The sponsoring organization may be non-profit; academic; private-

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sector; or local, state or federal government. The experience is documented in an internship report conforming to an approved format. Two bound copies of the report are submitted by the student, and one of them is kept in Wilson Library.

Repeatable to a maximum of 15 credits. S/U grading.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 1-15  
Grade Mode: S/U

### **ESCI 498C - Senior Project**

Applies knowledge and skills to a practical problem or situation in environmental research, education, or resource management. In cooperation with the faculty advisor, develops expertise in planning, development, implementation, management, and completion of an independent project. Approach may be laboratory, computer, field, or community based. The student presents a written report, digital presentation, seminar, performance, or physical product appropriate to the project, as approved by the faculty advisor. Repeatable to a maximum of 15 credits.

Credits: 1 TO 15  
Grade Mode: L

### **ESCI 498D - International Study**

International study exposes the student to environmental concerns, situations, and problems in cultural and geographical setting of a foreign country. The experience fosters broadening the student's awareness of human and natural impacts on the environment, and natural and cultural contexts of environmental issues. The experience must contain a significant independent research or problem-solving component. Credits from non-Huxley programs may be substituted to partially or fully meet the requirement, provided prior approval of the faculty adviser is documented in a '498 contract.' The student presents a written report, film, digital presentation, or seminar appropriate for the project, as approved by the faculty adviser. Repeatable to a maximum of 15 credits. S/U grading.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 1-15  
Grade Mode: S/U

### **ESCI 499A - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.  
Credits: 1  
Grade Mode: S/U

### **ESCI 499B - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.  
Credits: 1  
Grade Mode: S/U

### **ESCI 499C - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.  
Credits: 1  
Grade Mode: S/U

### **ESCI 499D - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.  
Credits: 1  
Grade Mode: S/U

### **ESCI 499E - Seminar**

Student/faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.  
Credits: 1  
Grade Mode: S/U

### **ESCI 499F - Seminar**

Student-faculty interaction. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

Credits: 2

Grade Mode: S/U

**ESCI 499G - Seminar**

Student-faculty interaction. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

Credits: 2

Grade Mode: S/U

**ESCI 499H - Seminar**

Student-faculty interaction. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

Credits: 2

Grade Mode: S/U

**ESCI 499I - Seminar**

Student-faculty interaction. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

Credits: 2

Grade Mode: S/U

**ESCI 499J - Seminar**

Student-faculty interaction. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

Credits: 2

Grade Mode: S/U

**ESCI 499K - Seminar**

Student-faculty interaction. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

Credits: 2

Grade Mode: S/U

**ESCI 499L - Seminar**

Student-faculty interaction. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

Credits: 2

Grade Mode: S/U

**ESCI 499M - Seminar**

Student-faculty interaction. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

Credits: 2

Grade Mode: S/U

**ESCI 499N - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

Credits: 1

**ESCI 499O - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

Credits: 1

**ESCI 499P - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

Credits: 1

**ESCI 499Q - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

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Credits: 1

## **ESCI 499R - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

Credits: 1

## **ESCI 499S - Seminar: Integration of Environmental Science and Policy**

This seminar will investigate the integration of science and policy within EPA and other Federal agencies such as US Forest Service, US Geological Survey, NOAA and NASA. The course will be an introduction to the process of science, a review of Kuhn, Popper and Oreskes, and the interaction between observational and experimental data, theory and simulation. Policy formulation under several federal level programs will be introduced. Detailed examination of several case studies will be presented by the students. During the quarter local policy makers-shapers will also be invited to discuss their experiences in melding science and policy.

**Prerequisites & Notes:** Environmental Science Major or permission.

Credits: 2

## **ESCI 499T - Seminar**

Student-faculty interaction. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

Credits: 2

## **ESCI 499U - Seminar**

Student-faculty interaction. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

Credits: 2

## **ESCI 499V - Seminar**

Student-faculty interaction. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

Credits: 2

## **ESCI 499W - Seminar**

Student-faculty interaction. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

Credits: 2

## **ESCI 499X - Seminar**

Student-faculty interaction. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

Credits: 2

## **ESCI 499Y - Seminar**

Student-faculty interaction. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

Credits: 2

## **ESCI 499Z - Seminar**

Student-faculty interaction. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

Credits: 2

## **ESCI 501 - Research in Environmental Science**

Philosophy and ethics of research; funding sources; proposal writing; research methodology; oral and written communication of research results; analytical and computer resources available at WWU.

**Prerequisites & Notes:** Graduate status in environmental science or permission of instructor.  
Credits: 3

## **ESCI 502 - Experimental Design**

Elements of good experimental design, including modeling experiments and evaluating appropriate

analysis techniques. Course draws heavily from current literature discussing appropriate use of statistics in experimental studies. Emphasis is on the application of univariate designs in ecological studies.

**Prerequisites & Notes:** minimum of one 300-level statistics course

Credits: 4

### **ESCI 503 - Statistical Ecology**

Covers graphical, descriptive and basic inferential statistics; nonparametric procedures; regression, correlation, and analysis of variance; and multivariate classification and ordination. Emphasis on using a variety of statistical tools to analyze ecological data sets.

**Prerequisites & Notes:** Minimum of one 300-level biostatistics course.

Credits: 4

### **ESCI 507 - Advanced Forest Ecology**

Ecology and analysis of forest ecosystems. Investigates the interactions of ecosystem components, specifically soil, plant and animal processes with an emphasis on Pacific Northwest forests. Includes investigative field and lab studies of local ecosystems.

**Prerequisites & Notes:** ESCI 325 or BIOL 325; ESCI 340 or BIOL 340; or equivalent

Credits: 5

### **ESCI 510 - Advanced Forest-Fish Interactions**

Examination of watershed ecology and fisheries biology, with an emphasis on Pacific Northwest ecosystems. Topics covered include salmonid fish life histories, riparian ecology, effects of land use practices on stream habitat, and strategies for fisheries management, conservation and restoration. Small groups will undertake empirical, field-based research projects. Offered concurrently with ESCI 410.

**Prerequisites & Notes:** Graduate status or permission of instructor.

Credits: 3

### **ESCI 521 - Biological Oceanography**

Course will provide a process-oriented view of marine pelagic ecosystems. Areas covered may include biogeography, energetics, food webs, biogeochemical cycles, fisheries oceanography. Laboratory and field work will emphasize current oceanographic techniques. Repeatable once.

**Prerequisites & Notes:** Graduate status; at least one year of biology, including ecology.

Credits: 5

### **ESCI 522 - Estuarine Ecology**

Structure and function of estuarine ecosystems with emphasis on the effect of physical and chemical factors on biological systems. Current management issues resulting from human impacts on estuaries.

**Prerequisites & Notes:** course in general ecology, oceanography or limnology

Credits: 5

### **ESCI 523 - Past Environments of the Pacific Northwest**

Introduction to the central concepts of paleoecology, the techniques paleoecologists use to study ancient environments and ecosystems, and some of the current research in the field. Focus on changes in the northwestern United States but the class will include a broad study of global paleoclimate.

**Prerequisites & Notes:** ESCI 325 or equivalent.

Credits: 4

### **ESCI 529 - Advanced Stream Ecology**

Ecology and analysis of streams with emphasis on physical and chemical properties in relation to biotic communities. Offered concurrently with ESCI 429. Graduate students must enroll in graduate laboratory section.

**Prerequisites & Notes:** minimum of 10 credits general chemistry

Credits: 5

### **ESCI 530 - Advanced Limnology**

Advanced study of the physical, chemical and biological properties of lakes.

**Prerequisites & Notes:** Minimum of 10 credits of



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general chemistry.

Credits: 5

### **ESCI 533 - Advanced Population Biology**

Study of the structure, distribution, and dynamics of populations. Emphasis is on both empirical and theoretical approaches to studying populations.

**Prerequisites & Notes:** ESCI 325 or BIOL 325; MATH 124; BIOL 321; MATH 125 recommended  
Credits: 4

### **ESCI 535 - Advanced Landscape Ecology**

The advanced study of landscape patterns across temporal and spatial scales with emphasis on their organization, functional interactions and dynamics. Application of landscape principles to land management problems.

**Prerequisites & Notes:** ESCI 325, ESCI 340 or equivalent  
Credits: 4

### **ESCI 536 - Environmental Impact Assessment Practicum**

Preparation of an objective assessment description of a real natural area including the search for public documentation, evaluation of coverage and specific new analyses. Coordinating role in task group data assembly and editorial review of draft project summaries. Experience directly related to professional responsibilities in the environmental field. Review of assessment utilization in the EIS format and of significant legislation.

**Prerequisites & Notes:** Graduate status.  
Credits: 4

### **ESCI 539 - Advanced Conservation of Biological Diversity**

Advanced study of causes and consequences of declines in biodiversity due to human activities. Review of conflicts arising from multiple-use management of natural resources. Survey and evaluation of conservation efforts directed at single species and at ecosystems. Discussion of primary conservation literature. Optional field trips.

**Prerequisites & Notes:** ESCI 325 or BIOL 325  
Credits: 5

### **ESCI 540 - Wetlands Ecology**

Uses an ecosystem approach to investigate the hydrologic, chemical and biological interactions that are unique to wetland systems. Students will take several field trips to bogs, swamps, marshes and estuaries in the area to become familiar with diverse wetland habitats and to illustrate the principals covered in class.

**Prerequisites & Notes:** ESCI 502 or concurrent  
Credits: 5

### **ESCI 542 - Remote Sensing**

Concepts and applications of remote sensing techniques for monitoring earth surface features. Special emphasis on mapping land use and land cover and on quantifying aspects of vegetation structure and composition. Labs are based on the use of data from airborne and spaceborne multispectral scanners and LIDAR.

**Prerequisites & Notes:** Graduate Status  
Credits: 5

### **ESCI 555 - Advanced Environmental Toxicology I**

Physiological and biochemical effects of major pollutants found in the environment; influence of various nutrients on pollutant toxicity.

**Prerequisites & Notes:** ESCI 302, CHEM 375; or instructor permission  
Credits: 4

### **ESCI 556 - Advanced Environmental Toxicology II**

Second course in environmental toxicology series. Covers toxicity testing, biomonitoring, data analysis and environmental risk assessment.

**Prerequisites & Notes:** ESCI 455 or ESCI 555 or instructor permission  
Credits: 4

### **ESCI 557 - Advanced Environmental Toxicology Laboratory I**

Protocols and procedures for evaluating the toxicity of chemicals and environmental samples using a variety of organisms and end point responses. Emphasis on organisms at the biochemical level.

**Prerequisites & Notes:**

pre/corequisite: ESCI 555 or instructor permission  
Credits: 3

**ESCI 558 - Advanced Environmental Toxicology Laboratory II**

Protocols and procedures for evaluating the toxicological effects of chemicals and other stressors on aquatic and terrestrial organisms measuring a variety of responses besides mortality. Emphasis on impacts at the organism level and applying results to determine short- and long-term effects at population and community levels.

**Prerequisites & Notes:** pre/corequisite: ESCI 556 or instructor permission  
Credits: 3

**ESCI 559 - Aquatic Toxicology**

Evaluation of the effects of toxic compounds on aquatic organisms. Acute and chronic responses to aquatic toxicants. Current trends in organismal, community and ecosystem aquatic toxicology.

**Prerequisites & Notes:** ESCI 555 or ESCI 556 or minimum of 4 credits 400-level courses in aquatic ecology  
Credits: 3

**ESCI 562 - Advanced Air Pollution**

Types of air pollutants, their measurements and effects. Removal of air pollutants from gas streams. Air pollution meteorology and dispersion. Air pollution laws and standards. Air resources management.

**Prerequisites & Notes:** ESCI 302; general chemistry; 2 quarters of calculus  
Credits: 4

**ESCI 590 - Advanced Environmental Risk Assessment**

Principles and methods of quantitative environmental risk assessment, data analysis and risk communication.

**Prerequisites & Notes:** Graduate status.  
Credits: 4

**ESCI 592 - Climate Change**

Magnitude and extent of climatic change and its probable impact on natural ecosystems resources (food, water and energy) and society. Evaluates possible actions which could minimize the impacts.

**Prerequisites & Notes:** Graduate status.  
Credits: 4

**ESCI 595 - Teaching Practicum**

Experience in teaching a lecture or laboratory course in environmental studies. Repeatable. S/U grading.

**Prerequisites & Notes:** relevant course work  
Credits: 1-3  
Grade Mode: S/U

**ESCI 599 - Graduate Environmental Studies Seminar**

Selected topics across the spectrum of environmental studies (e.g., toxicology, watershed studies, applied ecology, geography, environmental education, etc.). Repeatable to a maximum of 6 cr. S/U grading.

**Prerequisites & Notes:** Graduate status.  
Credits: 1-2  
Grade Mode: S/U

**ESCI 690 - Thesis Research**

Thesis research in environmental science under faculty direction, an integral part of the MS in environmental science. Repeatable up to 36 credits. S/U grading.

**Prerequisites & Notes:** thesis advisory committee permission  
Credits: 1-12  
Grade Mode: S/U

# Environmental Studies

## Introduction

Students, faculty, and staff in the Department of Environmental Studies approach environmental understanding and problem solving through diverse programs that examine interacting social and natural systems. By putting the social sciences, natural sciences, humanities, and environmental professions into direct dialogue, the department's curriculum is designed to help students make the intellectual connections and gain the practical skills necessary for building socially and environmentally sustainable futures. The department's undergraduate programs include major specializations in environmental education, environmental policy, geography, and urban planning and sustainable development, as well as an interdisciplinary major in environmental studies. The department also offers joint programs with the College of Business and Economics, Woodring college of Education, and the College of Humanities and Social Sciences. A range of minors, including Disaster Risk Reduction (DRR), Geographic Information Systems (GIS), Energy Policy, and Sustainable Design, are also available. These programs direct students to specific environmental career paths or provide an excellent background for advanced study in education, law, natural resource management, public administration, urban and environmental planning, and other fields. The department also offers advanced study through graduate degrees in Environmental Education and Geography.

## Faculty

The faculty's work in this department is diverse, yet tied together by a shared commitment to ongoing interdisciplinary exchange. Faculty are trained in anthropology, education, engineering, geography, history, law, natural resources management, political science, psychology, urban and regional planning, and related fields. Active research programs keep faculty at the forefront of these fields as they intersect with environmental studies. Department academic programs also draw upon the expertise of colleagues in other units of the University, such as the departments of economics and political science.

## Department Resources

Department facilities support applied student learning in the 30-computer spatial analysis lab with a complete suite of state-of-the-art GIS, cartography, and remote sensing software, GPS receivers, and extensive local data sets. Facilities also include the planning studio and environmental education lab. Experiential learning is emphasized in many of our programs, taking students into the field, from the local to the international, where they apply their skills and knowledge to current problems. Student work has received recognition from state, national, and international organizations for exceptional problem-solving solutions, which use geographic information systems and computer-aided design.

## Major Declaration

You can declare yourself as an Environmental Studies (ENVS) major at any time, and there are several advantages to declaring during your freshman or sophomore year. Once you are declared as a phase I major you are assigned a Huxley faculty advisor based on your interests at the time of declaration. You can then meet with your faculty advisor to discuss which courses to take and when, how to prepare for graduate school or a future career, or simply to get assistance navigating through the Huxley curriculum. Your email is added to an email distribution list for Huxley majors so you will begin to receive notifications and general announcements, as well as information about jobs, internships, or research opportunities.

Some important information about the ENVS major:

1. Most students begin the ENVS major in Phase I, while completing the preparatory classes for ENVS Phase II admission (BIOL 101 or 204, PLSC 250, ECON 206, Math 114 or equivalent, CHEM 121, as well as ENVS 201, 202, and 203). Those pursuing joint programs offered by Environmental Studies with other Western academic units may also begin as Phase I majors, although the preparatory and major requirements differ from those of the other ENVS majors as outlined in this catalog. You can declare an ENVS Phase I major at any time by

going to the central Huxley College office in Environmental Studies Building 539 and filling out a major declaration card.

2. Admission to Phase II is a competitive process and requires the coursework above and a grade of B- or better in ENVS 201, ENVS 202, and ENVS 203, as well as a satisfactory GPA in all other coursework. You must then submit an application that includes a 1-2 page essay describing your reasons for wanting to enter into one of the five ENVS majors (Environmental Education, Environmental Studies, Geography, Urban Planning, or Policy) as well as a plan of study created with the Huxley admissions advisor and signed by a faculty advisor. Entry into the Urban Planning major also requires a portfolio, and entry into the Environmental Studies major requires the signature of a second departmental faculty member on the plan of study. ENVS Phase II applications are accepted at central Huxley College office in the fall, winter, and spring quarters.

3. Changes to your major, plan of study, or requests for a change of advisor during Phase II require completing a new declaration card.

If you have any questions, please contact an undergraduate advisor at the central Huxley College office in Environmental Studies Building 539, or by phone (360-650-2817), or (360-650-3748).

## Faculty

**MICHAEL J. MEDLER** (2002) Chair and Associate Professor. BS (philosophy), MS (environmental studies), University of Oregon; PhD (geography), University of Arizona.

**TROY D. ABEL** (2006) Associate Professor. BS, Indiana University (public health); MPA, George Mason University (public policy analysis); PhD, public policy and science and technology policy).

**ANDREW J. BACH** (1995) Associate Professor. BS, MA (geography), University of California-Davis; PhD (geography), Arizona State University.

**GIGI BERARDI** (1995) Professor. Policy, Planning, Education and Geography, BA (biology), University of California at San Diego; MS (natural resources conservation), PhD (natural resources, policy and planning), Cornell University.

**PATRICK H. BUCKLEY** (1987) Associate Professor. BS (civil engineering and geology), University of Notre Dame; MA (economic geography and South Asian studies), University of Washington; PhD (economic geography), Boston University.

**STEVEN J. HOLLENHORST** (2012) Professor and Dean, Huxley College of the Environment. BS and MS (recreation and park management), University of Oregon; Phd (recreation and park management), The Ohio State University.

**JEAN O. MELIOUS** (1996) Professor. BA (government and environmental studies), St. Lawrence University; PhM (urban design and regional planning), University of Edinburgh; JD, Harvard Law School.

**JOHN C. MILES** (1968) Professor. BA (anthropology), Dartmouth College; MA (recreation and park management), University of Oregon; PhD (education), The Union Institute.

**SCOTT B. MILES** (2007) Associate Professor. BS (civil and environmental engineering), Washington State University; MS (civil and environmental engineering), University of Massachusetts-Amherst; Post-graduate Diploma (geographical information systems), University of Edinburgh; PhD (geography), University of Washington.

**DEBNATH MOOKHERJEE** (1961) Professor. BSc, MSc (geography), University of Calcutta; PhD (geography), University of Florida.

**O. EUGENE MYERS** (1995) Professor. BS (human ecology), Western Washington University; MA, PhD (psychology and human development), University of Chicago.

**DAVID A. ROSSITER** (2005) Associate Professor. BA (Honors), University of British Columbia; MA (geography); PhD, (geography) York University.

**PAUL STANGL** (2007) Associate Professor. BS (liberal arts) Kansas State University; MCRP (city and regional planning), Rutgers University; PhD (geography), University of Texas-Austin

**WENDY WALKER** (1991) Visiting Senior Instructor. BA and K-12 Teaching Certificate (geology), Western Washington University; MS (religion), Florida State University.

**GRACE WANG** (2002) Associate Professor. BS (political economy of natural resources), University of

## ENVIRONMENTAL STUDIES

California-Berkeley; MS, PhD (forestry), University of Minnesota.

**NICHOLAS C. ZAFERATOS** (1999) Associate Professor. BA (economic and regional geography), State University of New York; MS (urban and regional planning), Western Washington University; PhD (urban planning), University of Washington.

### *Emeritus Faculty*

**JOHN T. (JACK) HARDY** Professor Emeritus of Environmental Sciences. BA, University of California-Santa Barbara; MA, Oregon State University; PhD, University of Washington

**J. RICHARD MAYER** Professor Emeritus of Environmental Science. BS, Union College; MA, Columbia University; PhD, Yale University.

**ROBERT L. MONAHAN** Professor Emeritus of Geography and Environmental Social Sciences. BA, University of Washington; MA, University of Michigan; PhD, McGill University.

**LYNN A. ROBBINS** Professor Emeritus of Environmental Studies. BA, University of Utah; MA, PhD, University of Oregon.

**BRADLEY F. SMITH** Professor Emeritus of Huxley College of the Environment. BA, MA, Western Michigan University; PhD, University of Michigan.

**WILLIAM C. SUMMERS** Professor Emeritus of Environmental Science. BS, ME, PhD, University of Minnesota.

**THOMAS A. TERICH** Professor Emeritus of Geography. BA and MA, California State University, Los Angeles; PhD, Oregon State University.

**HERBERT H. WEBBER** Professor Emeritus of Geography and Environmental Social Sciences. BSc, PhD, University of British Columbia.

**MING-HO YU** Professor Emeritus of Huxley College. BS, National Taiwan University; MS, PhD, Utah State University.

### *Adjunct Faculty*

**JAMES D. ALLAWAY**, PhD (natural resources, policy, and planning), Cornell University.

**PAUL DINNEL** Marine Scientist, Shannon Point Marine Center. PhD (fisheries), University of Washington.

**STEFAN FREELAN**, MS (geography), Western Washington University.

**JERRY FREILICH**, Research and Monitoring Coordinator, Olympic National Park, PhD (aquatic ecology), University of Georgia.

**REBEKAH GREEN**, PhD (structural engineering), Cornell University.

**APRIL MARKIEWICZ**, MS (environmental toxicology), Western Washington University.

**BRADY OLSON**, Marine Scientist, Shannon Point Marine Center. PhD (biological oceanography), University of Washington.

**JENNIFER SELTZ**, PhD (history), University of Washington.

**MICHAEL G. STONER**, Environmental Manager, Port of Bellingham. MS (forest soils), University of Washington.

**SUZANNE STROM**, Marine Scientist, Shannon Point Marine Center. PhD (biological oceanography), University of Washington.

**KATHRYN L. VAN ALSTYNE**, Marine Scientist, Shannon Point Marine Center. PhD (marine ecology), University of Washington.

**SETH VIDANA**, WWU Sustainability Coordinator, MEd (environmental education), Western Washington University.

**SAUL WEISBERG**, Executive Director, North Cascades Institute. MS (biology) Western Washington University.

### *Affiliated Faculty*

**JOHN BOWER**, Associate Professor, Fairhaven College

**DON BURGESS**, Assistant Professor, SMATE

**CRAIG DUNN**, Associate Professor, Management, CBE

**DAN HAGEN**, Professor, Economics, CBE

**JILL HECKATHORN**, Senior Instructor, PE  
**VICTOR NOLET**, Professor, Woodring College of Education  
**ARUNAS OSLAPAS**, Professor, Engineering Technology  
**DEBRA J. SALAZAR**, Professor, Department of Political Science  
**DAVID SATTLER**, Professor, Department of Psychology  
**STEPHEN D. SULKIN**, Professor and Director, Shannon Point  
**PHIL THOMPSON**, Assistant Professor, Economics, CBE  
**JOHN TUXILL**, Assistant Professor, Fairhaven College

## Graduate Study

For concentrations leading to the Master of Education or the Master of Science degrees, see the *Graduate School* section of this catalog.

## Bachelor of Arts

### Business and Sustainability, BA (see Management Department)

Business and Sustainability, BA (see Management Department)

### Economics/Environmental Studies, BA (see Economics Department)

Economics/Environmental Studies, BA (see Economics Department)

### Environmental Education, BA

Department of Environmental Studies, Huxley College of the Environment

### 126-133 credits: Phase I, Phase II, and Major

#### Introduction/What is the Study of Environmental Education?

The major consists of four distinct parts. First, students acquire an understanding of the content of environmental studies. Second, students examine the process of education for an environmental perspective. Third, students investigate ways of applying environmental education content and techniques in the professional roles they may pursue. Fourth, students participate in internships, a field practicum, or research.

#### Why Consider an Environmental Education Major?

Are you excited about teaching people about the environment? Do you want to help people learn to make environmental choices in their lives? Do you love to work outdoors with children or adults? Then Environmental Education is for you.

Graduates of this major have assumed positions as teachers in private schools, as interpreters with resource management agencies, as staff in programs for special populations such as at-risk youth and persons with disabilities, among others, and with wilderness education non-profits.

#### Contact Information

##### Department Chair

Michael Medler  
 Arntzen Hall 210  
 360-650-3173  
 Michael.Medler@wwu.edu

##### Huxley College Admissions Advisor

Kathryn Patrick  
 Environmental Studies 539  
 360-650-3520  
 Kathryn.Patrick@wwu.edu

##### Faculty Advisor

Gene Myers  
 Arntzen Hall 224  
 Gene.Myers@wwu.edu

##### Faculty Advisor

John Miles

## Sample Careers

Private School Teacher | Outdoor Leadership Director | Environmental Interpreter | Adventure Educator | Camp Director | Nature Writer | Naturalist | Communications work in Sustainability Non-profits and Government Agencies

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

You can declare yourself as an Environmental Studies (ENVS) major at any time, and there are several advantages to declaring during your freshman or sophomore year. Once you are declared as a phase I major you are assigned a Huxley faculty advisor based on your interests at the time of declaration. You can then meet with your faculty advisor to discuss which courses to take and when, how to prepare for graduate school or a future career, or simply to get assistance navigating through the Huxley curriculum. Your email is added to an email distribution list for Huxley majors so you will begin to receive notifications and general announcements, as well as information about jobs, internships, or research opportunities.

Some important information about the ENVS major:

1. Most students begin the ENVS major in Phase I, while completing the preparatory classes for ENVS Phase II admission (BIOL 101 or 204, PLSC 250, ECON 206, Math 114 or equivalent, CHEM 121, as well as ENVS 201, 202, and 203). You can declare an ENVS Phase I major at any time by going to the central Huxley College office in Environmental Studies Building 539 and filling out a major declaration card.
2. Admission to Phase II is a competitive process and requires the coursework above and a grade of B- or better in ENVS 201, ENVS 202, and ENVS 203, as well as a satisfactory GPA in all other coursework. You must then submit an application that includes a 1-2 page essay describing your reasons for wanting to enter into one of the five ENVS majors (Environmental Education, Environmental Studies, Geography, Urban Planning, or Policy) as well as a plan of study created with the Huxley admissions advisor and signed by a faculty advisor. Entry into the Urban Planning major also requires a portfolio, and entry into the Environmental Studies major requires the signature of a second departmental faculty member on the plan of study. ENVS Phase II applications are accepted at central Huxley College office in the fall, winter, and spring quarters.
3. Changes to your major, plan of study, or requests for a change of advisor during Phase II require completing a new declaration card.

If you have any questions, please contact an undergraduate advisor at the central Huxley College office in Environmental Studies Building 539, or by phone (360-650-2817), or (360-650-3748).

### **Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

Requirements

#### PHASE I

#### **Required Courses (33 credits):**

- One course from:
  - BIOL 101 - Introduction to Biology
  - BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
  - CHEM 121 - General Chemistry I
  - ECON 206 - Introduction to Microeconomics
  - MATH 114 - Precalculus I or equivalent or higher
  - PLSC 250 - The American Political System
  - ENVS 201 - Understanding Environmental Data and Information

- ENVS 202 - Introduction to Environmental Studies and Sustainability
- ENVS 203 - Physical Geography

PHASE II

**ENVS CORE**

**Required Courses (17-20 credits):**

- One course from:
  - ENVS 303 - Human Ecology and Sustainability
  - ENVS 304 - Environment and Resource Policy
  - ENVS 305 - Environmental History and Ethics
- One course from:
  - ENVS 343 - Urbanization: Processes and Patterns
  - ENVS 361 - Introduction to Planning
- One course from:
  - ESCI 302 - Environmental Pollution
  - ESCI 310 - Environmental Systems
  - ESCI 325 - Fundamentals of Ecology
  - ESCI 392 - Introduction to Global Change
- One course from:
  - ESCI 321 - Oceanography
  - ESCI 333 - Introduction to Environmental Toxicology
  - ESCI 361 - Water Quality
  - ESCI 463 - Wetlands for Wastewater Treatment

Environmental Education Major

**Required Courses (76-80 credits):**

- ENVS 381 - Introduction to Education for Environment and Sustainability
- ENVS 382 - Curriculum for Environment and Sustainability
- ENVS 482 - Community-Based Education for Sustainability
- ENVS 484 - The American Literature of Nature and Place
- ENVS 485 - Natural History for Environmental Education \*
- ENVS 486 - Field Methods in Environmental Education \*
- ENVS 488 - Outdoor Education \*
- ENVS 489 - Leadership for a Sustainable Future \*
- \* Part of Spring Block
- ESCI 330 - Natural History of the Pacific Northwest
- One course from:
  - ENVS 412 - Environmental Journalism
  - ENVS 483 - Environmental Interpretation
- ENVS Capstone - One course from:
  - ENVS 410 - Agroecology and Sustainable Agriculture
  - ENVS 430 - Borderlands
  - ENVS 466 - Greening Business Applications
  - ENVS 474 - Planning for Sustainable Communities
  - ENVS 493 - Environmental Impact Assessment
  - ENVS 496 - Environmental Stewardship
  - ESCI 470 - Ecological Restoration
  - ESCI 490 - Environmental Risk Assessment



## ENVIRONMENTAL STUDIES

- ESCI 491 - Oceanography of Puget Sound
- ESCI 493 - Environmental Impact Assessment
- One course from (minimum 10 credits):
- ENVS 498A - Senior Thesis
- ENVS 498B - Internship
- ENVS 498C - Senior Project
- ENVS 498D - International Study
- 21-24 credits - Specialized Electives 300- or 400-level

### **Environmental Policy (Extension), BA**

Department of Environmental Studies, Huxley College of the Environment

#### **116-125 credits (Phase I, Phase II and Major)**

#### **Introduction/What is the Study of Environmental Policy?**

The interdisciplinary program in Environmental Policy (Extension) is offered at off-site locations and prepares students to enter professional fields concerned with the sustainability of the human and natural environment. The program provides students with the knowledge and skills necessary to promote positive change by solving problems and implementing shared visions in both natural settings and urban communities. The Environmental Policy Emphasis concentrates in public policy development, sustainability, law and decision making. Exact off site locations are listed in the Extended Education section of this catalog.

#### **Why Consider an Extension Environmental Policy Major?**

Contact Information	
<b>Department Chair</b>	<b>Huxley College Admissions Advisor</b>
Michael Medler	Kathryn Patrick
Arntzen Hall 210	Environmental Studies 539
360-650-3173	360-650-3520
Michael.Medler@wwu.edu	Kathryn.Patrick@wwu.edu

Sample Careers
Major/Career Resources
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>

#### **How to Declare (Admission and Declaration Process):**

If you are interested in the Environmental Policy (Extension), BA major, you must first complete either; a Direct Transfer Agreement (DTA) Associate Degree or the equivalent to Western Washington University's General University Requirements. You can decide to become an Environmental Policy major at any time. It is advantageous to plan for your major during your freshman or sophomore year, as prerequisite classes can be a part of earning your DTA. Contact the program manager (see below) to develop a plan for completing the prerequisite courses while earning your DTA. Your email can be added to the "interested students: distribution list for Huxley on the Peninsulas and you will begin to receive notifications, general announcements, and information about jobs, internships, or research opportunities.

Important information about admission to the ENVS major:

1. Phase I: Most students complete the Environmental Policy major Phase I, while completing their DTA associates degree. The Phase I prerequisites must be complete before admission into Huxley on the Peninsulas. Phase I prerequisites include BIOL 101 or 204, PLSC 250, ECON 206, Math 114 or equivalent or higher, CHEM 121, as well as Math 240 (or equivalent), ENVS 203, plus a DTA.

2. Phase II: Admission to Phase II is a competitive process and requires the coursework above and a satisfactory GPA in all coursework. You must then submit two applications: the Extension Undergraduate Program at <http://admissions.wvu.edu/print/EESPEExtensionUGApp.pdf> and a Huxley on the Peninsulas application that lists relevant experience and includes a 1-2 page essay describing your reasons for wanting to enter into the Environmental Policy major. Applications are obtained from the program manager and accepted in the spring for fall admittance.

3. Changes to your major during Phase II require completing a new declaration card.

If you have any questions, please contact Nancy Bluestein-Johnson, program manager, by phone (360-417-6521) or [Nancy.Bluestein-Johnson@wvu.edu](mailto:Nancy.Bluestein-Johnson@wvu.edu)

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

PHASE I (Required Courses): 34-37 credits

One course from:

- BIOL 101 - Introduction to Biology
- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
- CHEM 121 - General Chemistry I
- ECON 206 - Introduction to Microeconomics
- ENVS 203 - Physical Geography
- MATH 114 - Precalculus I
- PLSC 250 - The American Political System
- Any BCOM or CCOM GUR requirement course

One course from:

- ENVS 201 - Understanding Environmental Data and Information
- DSCI 205 - Business Statistics
- MATH 240 - Introduction to Statistics
- SOC 304 - Statistics for Sociology

PHASE II (ENVS Core - Required Courses): 20-21 credits:

- ESCI 325 - Fundamentals of Ecology
- ENVS 202 - Introduction to Environmental Studies and Sustainability
- ENVS 304 - Environment and Resource Policy
- ENVS 305 - Environmental History and Ethics
- ENVS 361 - Introduction to Planning

One course from:

- ESCI 321 - Oceanography
- ESCI 330 - Natural History of the Pacific Northwest
- ESCI 361 - Water Quality

Environmental Policy Extension Major Required Courses: 62-67 credits

- ECON 383 - Environmental Economics
- ENVS 450 - United States Environmental Policy
- ENVS 456 - U.S. and Washington State Environmental Regulations
- ENVS 457 - Environmental Dispute Resolution

One course from:

- ENVS 350 - Energy Policy and Politics
- ENVS 451 - Natural Resource Policy

## ENVIRONMENTAL STUDIES

- ENVS 452 - International Environmental Policy
- One course from:
  - ENVS 455 - Environmental Law
  - ENVS 461 - Land Use Law
- ESCI - One or more 300-level or above natural science courses (4-5 credits)
  - ESCI 302 - Environmental Pollution
  - ESCI 310 - Environmental Systems
  - ESCI 315 - Art, Science and Ethics of Flyfishing
  - ESCI 321 - Oceanography
  - ESCI 328 - Introduction to Ecosystem Management
  - ESCI 330 - Natural History of the Pacific Northwest
  - ESCI 333 - Introduction to Environmental Toxicology
  - ESCI 361 - Water Quality
  - ESCI 380 - Energy and Environment
  - ESCI 392 - Introduction to Global Change
  - ESCI 407 - Forest Ecology
  - ESCI 410 - Forest-Fish Interactions
  - ESCI 429 - Stream Ecology
  - ESCI 432 - Topics in Marine Ecology
  - ESCI 462 - Air Pollution
  - ESCI 463 - Wetlands for Wastewater Treatment
  - ESCI 470 - Ecological Restoration
  - ESCI 480 - Applications in Energy Production
- One course from (minimum of 10 credits):
  - ENVS 498A - Senior Thesis
  - ENVS 498B - Internship
  - ENVS 498C - Senior Project
  - ENVS 498D - International Study
- Capstone (one course from):
  - ENVS 493 - Environmental Impact Assessment
  - ESCI 493 - Environmental Impact Assessment
- 19-22 Specialization electives 300 or 400 level, under advisement.

### **Environmental Policy, BA**

Environmental Studies, Huxley College of the Environment

#### **109-118 credits: Phase I, Phase II, and Major**

#### **Introduction/What is the Study of Environmental Policy?**

This interdisciplinary program prepares students to enter professional fields concerned with the sustainability of the human and natural environment. The Environmental Policy program consists of a core, and specialization electives. The core incorporates the interdisciplinary foundation of Huxley College's approach to the study of the environment. Environmental policy concentrates studies in public policy development, law, and methods and processes of planning and decision making. The specialization elective component of the program is flexible. It allows students to develop an area of special interest, concentrating on a minor in an academic discipline, or to select from a number of thematically oriented clusters of courses.

### Why Consider an Environmental Policy Major?

Do you want to use your knowledge and skills to promote positive change in the environment? Do you love solving problems and implementing shared visions in both natural settings and urban communities? Are you interested in the laws and policies that govern environmental change? Then Environmental Policy is the major for you.

#### Contact Information

##### Department Chair

Michael Medler  
Arntzen Hall 210  
360-650-3173  
Michael.Medler@wwu.edu

##### Huxley College Admissions Advisor

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

##### Policy Track Advisor

Jean Melious  
Arntzen Hall 208  
Jean.Melious@wwu.edu

##### Policy Track Advisor

Grace Wang  
Arntzen Hall 212  
Grace.Wang@wwu.edu

##### Policy Track Advisor

Troy Abel  
Arntzen Hall 205  
Troy.Abel@wwu.edu

#### Sample Careers

Urban Planner | Environmental Lawyer | County Planner | Environmental Public Relations | Director of Non-Profit Organizations

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

You can declare yourself as an Environmental Studies (ENVS) major at any time, and there are several advantages to declaring during your freshman or sophomore year. Once you are declared as a phase I major you are assigned a Huxley faculty advisor based on your interests at the time of declaration. You can then meet with your faculty advisor to discuss which courses to take and when, how to prepare for graduate school or a future career, or simply to get assistance navigating through the Huxley curriculum. Your email is added to an email distribution list for Huxley majors so you will begin to receive notifications and general announcements, as well as information about jobs, internships, or research opportunities.

Some important information about the ENVS major:

1. Most students begin the ENVS major in Phase I, while completing the preparatory classes for ENVS Phase II admission (BIOL 101 or 204, PLSC 250, ECON 206, Math 114 or equivalent, CHEM 121, as well as ENVS 201, 202, and 203). You can declare an ENVS Phase I major at any time by going to the central Huxley College office in Environmental Studies Building 539 and filling out a major declaration card.
2. Admission to Phase II is a competitive process and requires the coursework above and a grade of B- or better in ENVS 201, ENVS 202, and ENVS 203, as well as a satisfactory GPA in all other coursework. You must then submit an application that includes a 1-2 page essay describing your reasons for wanting to enter into one of the five ENVS majors (Environmental Education, Environmental Studies, Geography, Urban Planning, or Policy) as well as a plan of study created with the Huxley admissions advisor and signed by a faculty advisor. Entry into the Urban Planning major also requires a portfolio, and entry into the Environmental Studies major requires the signature of a second departmental faculty member on the plan of study. ENVS Phase II applications are accepted at central Huxley College office in the fall, winter, and spring quarters.
3. Changes to your major, plan of study, or requests for a change of advisor during Phase II require completing a new declaration card.

If you have any questions, please contact an undergraduate advisor at the central Huxley College office in Environmental Studies Building 539, or by phone (360-650-2817), or (360-650- 3748).

# ENVIRONMENTAL STUDIES

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

Requirements

### PHASE I

#### Required Courses (33 credits):

- One course from:
  - BIOL 101 - Introduction to Biology
  - BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
  - CHEM 121 - General Chemistry I
  - ECON 206 - Introduction to Microeconomics
  - ENVS 201 - Understanding Environmental Data and Information
  - ENVS 202 - Introduction to Environmental Studies and Sustainability
  - ENVS 203 - Physical Geography
  - MATH 114 - Precalculus I or equivalent or higher
  - PLSC 250 - The American Political System

### PHASE II

#### ENVS CORE

#### Required Courses (17-20 credits):

- One course from:
  - ENVS 303 - Human Ecology and Sustainability
  - ENVS 304 - Environment and Resource Policy
  - ENVS 305 - Environmental History and Ethics
- One course from:
  - ENVS 343 - Urbanization: Processes and Patterns
  - ENVS 361 - Introduction to Planning
- One course from:
  - ESCI 302 - Environmental Pollution
  - ESCI 310 - Environmental Systems
  - ESCI 325 - Fundamentals of Ecology
  - ESCI 392 - Introduction to Global Change
- One course from:
  - ESCI 321 - Oceanography
  - ESCI 330 - Natural History of the Pacific Northwest
  - ESCI 333 - Introduction to Environmental Toxicology
  - ESCI 361 - Water Quality
  - ESCI 463 - Wetlands for Wastewater Treatment

Environmental Policy Major

#### Required Courses (59-65 credits):

- ECON 383 - Environmental Economics
- ENVS 450 - United States Environmental Policy
- ENVS 456 - U.S. and Washington State Environmental Regulations
- ENVS 457 - Environmental Dispute Resolution
- One or more 300 level or above natural science courses:
  - ESCI 302 - Environmental Pollution
  - ESCI 310 - Environmental Systems

- ESCI 315 - Art, Science and Ethics of Flyfishing
- ESCI 328 - Introduction to Ecosystem Management
- ESCI 330 - Natural History of the Pacific Northwest
- ESCI 333 - Introduction to Environmental Toxicology
- ESCI 361 - Water Quality
- ESCI 380 - Energy and Environment
- ESCI 392 - Introduction to Global Change
- ESCI 410 - Forest-Fish Interactions
- ESCI 462 - Air Pollution
- ESCI 463 - Wetlands for Wastewater Treatment
- ESCI 470 - Ecological Restoration
- ESCI 480 - Applications in Energy Production
- Or other approved 300-400 level or above course
- One course from:
  - ENVS 350 - Energy Policy and Politics
  - ENVS 359 - Greening Business Policy and Practice
  - ENVS 362 - Theory and Practice of Emergency Management
  - ENVS 441 - Society, Space, and Natural Resources
  - ENVS 451 - Natural Resource Policy
  - ENVS 452 - International Environmental Policy
  - ENVS 454 - Environmental Policy Analysis
  - ENVS 482 - Community-Based Education for Sustainability
- One course from:
  - ENVS 455 - Environmental Law
  - ENVS 461 - Land Use Law
- ENVS Capstone - One course from:
  - ENVS 410 - Agroecology and Sustainable Agriculture
  - ENVS 430 - Borderlands
  - ENVS 466 - Greening Business Applications
  - ENVS 474 - Planning for Sustainable Communities
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  - ENVS 496 - Environmental Stewardship
  - ESCI 470 - Ecological Restoration
  - ESCI 490 - Environmental Risk Assessment
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- One course from: (minimum 10 credits)
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  - ENVS 498B - Internship
  - ENVS 498C - Senior Project
  - ENVS 498D - International Study
- 18-19 credits - Specialization electives 300 or 400 level, under advisement.

## **Environmental Studies, BA**

Department of Environmental Studies, Huxley College of the Environment

**123-135 credits minimum: Phase I, Phase II, and Major**

# ENVIRONMENTAL STUDIES

## Introduction/What is the Study of Environmental Studies?

Students, faculty, and staff in the Department of Environmental Studies approach environmental understanding and problem solving through diverse programs that examine interacting social and natural systems. By putting the social sciences, natural sciences, humanities, and environmental professions into direct dialogue, the department's curriculum is designed to help students make the intellectual connections and gain the practical skills necessary for building socially and environmentally sustainable futures. The department's undergraduate programs include major specializations in environmental education, environmental policy, geography, and urban planning and sustainable development, as well as an interdisciplinary major in environmental studies. Joint programs are also offered in environmental economics and environmental journalism. A range of minors, including Disaster Risk Reduction (DRR), Geographic Information Systems (GIS), and Sustainable Design, are also available. These programs direct students to specific environmental career paths or provide an excellent background for advanced study in education, law, natural resource management, public administration, urban and environmental planning, and other fields. The department also offers advanced study through graduate degrees in Environmental Education and Geography.

## Why Consider an Environmental Studies Major?

Do you want to use your knowledge and skills to promote positive change in the environment?

### Contact Information

#### Department Chair

Michael Medler  
Arntzen Hall 210  
360-650-3173  
Michael.Medler@wwu.edu

#### Huxley College Admissions Advisor

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

### Sample Careers

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### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

You can declare yourself as an Environmental Studies (ENVS) major at any time, and there are several advantages to declaring during your freshman or sophomore year. Once you are declared as a phase I major you are assigned a Huxley faculty advisor based on your interests at the time of declaration. You can then meet with your faculty advisor to discuss which courses to take and when, how to prepare for graduate school or a future career, or simply to get assistance navigating through the Huxley curriculum. Your email is added to an email distribution list for Huxley majors so you will begin to receive notifications and general announcements, as well as information about jobs, internships, or research opportunities.

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If you have any questions, please contact an undergraduate advisor at the central Huxley College office in Environmental Studies Building 539, or by phone (360-650-2817), or (360-650-3748).

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### PHASE I

##### Required Courses (33 credits):

- One course from:
  - BIOL 101 - Introduction to Biology
  - BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
  - CHEM 121 - General Chemistry I
  - ECON 206 - Introduction to Microeconomics
  - ENVS 201 - Understanding Environmental Data and Information
  - ENVS 202 - Introduction to Environmental Studies and Sustainability
  - ENVS 203 - Physical Geography
  - MATH 114 - Precalculus I or equivalent or higher
  - PLSC 250 - The American Political System

#### PHASE II

##### ENVS CORE

##### Required Courses (17-20 credits):

- One course from:
  - ENVS 303 - Human Ecology and Sustainability
  - ENVS 304 - Environment and Resource Policy
  - ENVS 305 - Environmental History and Ethics
- One course from:
  - ENVS 343 - Urbanization: Processes and Patterns
  - ENVS 361 - Introduction to Planning
- One course from:
  - ESCI 302 - Environmental Pollution
  - ESCI 310 - Environmental Systems
  - ESCI 325 - Fundamentals of Ecology
  - ESCI 392 - Introduction to Global Change
- One course from:
  - ESCI 321 - Oceanography
  - ESCI 330 - Natural History of the Pacific Northwest
  - ESCI 333 - Introduction to Environmental Toxicology
  - ESCI 361 - Water Quality
  - ESCI 463 - Wetlands for Wastewater Treatment

Environmental Studies Major (73-82 credits):

The Environmental Studies Major requires:

1. Two advisors to sign the plan of study BEFORE the beginning of senior year.
2. Choose two lists from the four below (A, B, C, D); take two courses from each chosen list.  
List A - Environmental Education:



## ENVIRONMENTAL STUDIES

- ENVS 381 - Introduction to Education for Environment and Sustainability
- ENVS 482 - Community-Based Education for Sustainability
- ENVS 484 - The American Literature of Nature and Place

### List B - Environmental Policy:

- ENVS 450 - United States Environmental Policy
- ENVS 454 - Environmental Policy Analysis
- ENVS 456 - U.S. and Washington State Environmental Regulations

### List C - Urban Planning and Sustainable Development:

- ENVS 360 - Plan Graphics: Methods in Urban Planning Design Graphics
- ENVS 361 - Introduction to Planning
- ENVS 370 - History of Planning
- ENVS 462 - Planning Theory
- ENVS 470 - Planning Methods

### List D - Geography:

- ENVS 316 - Explorations in Environmental Studies
- ENVS 325 - Geography of Landforms
- ENVS 326 - Climatology
- ENVS 327 - The Soil Environment
- ENVS 331 - Canada: Society and Environment
- ENVS 332 - The Pacific Northwest: Society and Environment
- ENVS 334 - South Asia: Society and Environment
- ENVS 335 - The Middle East: Society and Environment
- ENVS 340 - Developing World
- ENVS 341 - Population and Resources
- ENVS 342 - Geography of the World Economy

Please note: Prerequisites may be required for some courses.

### ENVS Capstone - One course from:

- ENVS 410 - Agroecology and Sustainable Agriculture
- ENVS 430 - Borderlands
- ENVS 466 - Greening Business Applications
- ENVS 474 - Planning for Sustainable Communities
- ENVS 493 - Environmental Impact Assessment
- ENVS 496 - Environmental Stewardship
- ESCI 470 - Ecological Restoration
- ESCI 490 - Environmental Risk Assessment
- ESCI 491 - Oceanography of Puget Sound
- ESCI 493 - Environmental Impact Assessment

### Minimum 10 credits - ENVS Experiential application - One course from:

- ENVS 498A - Senior Thesis
- ENVS 498B - Internship
- ENVS 498C - Senior Project
- ENVS 498D - International Study

Minimum 30 credits - ENVS 300-400 level (minimum 15 credits 400-level) or approved substitutions, under advisement

Minimum 18 credits - 300- or 400-level electives, under advisement

## Environmental Studies/Journalism, BA (In Moratorium, see Journalism Department)

Environmental Studies/Journalism, BA (In Moratorium, see Journalism Department)

## Geography, BA

Department of Environmental Studies, Huxley College of the Environment

### 121-130 credits: Phase I, Phase II, and Major

#### Introduction/What is the Study of Geography?

Geography is the science of place and space. Geographers ask where things are located on the surface of the Earth, why they are located where they are, how places differ from one another, and how people interact with the environment. Geography links the social sciences and natural sciences together, studying the relationships between human activity and natural systems.

As a geographer, you can make a difference — from teaching to planning, from working for sustainable development to working with geospatial technologies, and more. Graduates of this major have assumed positions in State and National Parks, the Forest Service, college and universities, non-profit organizations, and the private sector. If you are interested in teaching Geography in public schools, see the B.A. Geography/Social Studies or B.A.Ed. Geography/Elementary Education information sheet. Western also offers a Masters in Science in Geography.

Prospective Geography majors are strongly advised to take additional preparatory course work that provides a strong background in several of: chemistry, biology, geology, physics, mathematics, statistics, political science, anthropology, and/or history. The preparatory courses listed for the major, where approved as GUR courses in the catalog, may be used to fulfill both Huxley College and GUR requirements. Students wishing to complete the Geography major in four years should complete all GUR requirements in the first two years. A minor in Geographic Information Systems, Geology or an additional language are commonly completed by Geography students. All preparatory courses required for admission should be completed on a lettered or numeric grading scale, not P/NP, and must be completed with a grade of C- or better.

#### Why Consider a Geography Major?

Are you curious about the world, and its physical and human dimensions? Do you love maps? Are you comfortable with spatial problem solving? If so, then Geography is the major for you.

#### Contact Information

##### Department Chair and Advisor

Michael Medler  
Arntzen Hall 210  
360-650-3173  
Michael.Medler@wwu.edu

##### Faculty Advisor

Debnath Mookherjee  
Arntzen Hall 228  
Debnath.Mookherjee@wwu.edu

##### Huxley College

##### Admissions Advisor

Kathryn Patrick  
Environmental Studies  
539  
360-650-3520  
Kathryn.Patrick@wwu.edu

##### Faculty Advisor

Andrew Bach  
Arntzen Hall 226  
Andy.Bach@wwu.edu

##### Faculty Advisor

Aquila Flower  
Arntzen Hall 209  
Aquila.Flower@wwu.edu

##### Faculty Advisor

David Rossiter  
Arntzen Hall 232  
David.Rossiter@wwu.edu

##### Faculty Advisor

Patrick Buckley  
Arntzen Hall 222  
Patrick.Buckley@wwu.edu

# ENVIRONMENTAL STUDIES

## Sample Careers

Cartographer | Resource Manager | GIS Database Manager | Water Resource Manager | Park Ranger | Forest Service Employee | College or University Instructor

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

You can declare yourself as an Environmental Studies (ENVS) major at any time, and there are several advantages to declaring during your freshman or sophomore year. Once you are declared as a phase I major you are assigned a Huxley faculty advisor based on your interests at the time of declaration. You can then meet with your faculty advisor to discuss which courses to take and when, how to prepare for graduate school or a future career, or simply to get assistance navigating through the Huxley curriculum. Your email is added to an email distribution list for Huxley majors so you will begin to receive notifications and general announcements, as well as information about jobs, internships, or research opportunities.

Some important information about the ENVS major:

1. Most students begin the ENVS major in Phase I, while completing the preparatory classes for ENVS Phase II admission (BIOL 101 or 204, PLSC 250, ECON 206, Math 114 or equivalent, CHEM 121, as well as ENVS 201, 202, and 203). You can declare an ENVS Phase I major at any time by going to the central Huxley College office in Environmental Studies Building 539 and filling out a major declaration card.
2. Admission to Phase II is a competitive process and requires completion of the coursework above with a grade of B- or better in ENVS 201, ENVS 202, and ENVS 203, as well as a satisfactory GPA in all other coursework. You must then submit an application that includes a 1-2 page essay describing your reasons for wanting to enter into one of the five ENVS majors (Environmental Education, Environmental Studies, Geography, Urban Planning, or Policy) as well as a plan of study created with the Huxley admissions advisor and signed by a faculty advisor. Entry into the Urban Planning major also requires a portfolio, and entry into the Environmental Studies major requires the signature of a second departmental faculty member on the plan of study. ENVS Phase II applications are accepted at central Huxley College office in the fall, winter, and spring quarters.
3. Changes to your major, plan of study, or requests for a change of advisor during Phase II require completing a new declaration card.

If you have any questions, please contact an undergraduate advisor at the central Huxley College office in Environmental Studies Building 539, or by phone (360-650-2817), or (360-650- 3748).

### **Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

Requirements

#### PHASE I

#### **Required Courses (33 credits):**

- One course from:
  - BIOL 101 - Introduction to Biology
  - BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
  - CHEM 121 - General Chemistry I
  - ECON 206 - Introduction to Microeconomics
  - ENVS 201 - Understanding Environmental Data and Information
  - ENVS 202 - Introduction to Environmental Studies and Sustainability
  - ENVS 203 - Physical Geography
  - MATH 114 - Precalculus I or equivalent or higher.
  - PLSC 250 - The American Political System

## PHASE II

**ENVS CORE****Required Courses (17-20 credits):**

- One course from:
  - ENVS 303 - Human Ecology and Sustainability
  - ENVS 304 - Environment and Resource Policy
  - ENVS 305 - Environmental History and Ethics
- One course from:
  - ENVS 343 - Urbanization: Processes and Patterns
  - ENVS 361 - Introduction to Planning
- One course from:
  - ESCI 302 - Environmental Pollution
  - ESCI 310 - Environmental Systems
  - ESCI 325 - Fundamentals of Ecology
  - ESCI 392 - Introduction to Global Change
- One course from:
  - ESCI 321 - Oceanography
  - ESCI 330 - Natural History of the Pacific Northwest
  - ESCI 333 - Introduction to Environmental Toxicology
  - ESCI 361 - Water Quality
  - ESCI 463 - Wetlands for Wastewater Treatment

## Geography Major

**Required Courses (71-77 credits):**

- ENVS 204 - Human Geography
- ENVS 319 - Research and Writing
- ENVS 320 - Introduction to Geographic Information Systems
- One course from:
  - ENVS 220 - Map Reading and Analysis
  - ENVS 321 - Computer Cartography
- Human Geography - One course from:
  - ENVS 340 - Developing World
  - ENVS 341 - Population and Resources
  - ENVS 342 - Geography of the World Economy
  - ENVS 343 - Urbanization: Processes and Patterns
- Regional Geography - One course from:
  - ENVS 330 - The United States: Society and Environment
  - ENVS 331 - Canada: Society and Environment
  - ENVS 332 - The Pacific Northwest: Society and Environment
  - ENVS 333 - East Asia: Society and Environment
  - ENVS 334 - South Asia: Society and Environment
  - ENVS 335 - The Middle East: Society and Environment
- Physical Geography - One course from:
  - ENVS 325 - Geography of Landforms
  - ENVS 326 - Climatology
  - ENVS 327 - The Soil Environment
  - ENVS 372 - Natural Hazards Planning
- At least five courses (minimum three courses 400-level) from:
  - ENVS 322 - Analysis of Spatial Data

## ENVIRONMENTAL STUDIES

- ENVS 325 - Geography of Landforms
- ENVS 326 - Climatology
- ENVS 327 - The Soil Environment
- ENVS 330 - The United States: Society and Environment
- ENVS 331 - Canada: Society and Environment
- ENVS 332 - The Pacific Northwest: Society and Environment
- ENVS 333 - East Asia: Society and Environment
- ENVS 334 - South Asia: Society and Environment
- ENVS 335 - The Middle East: Society and Environment
- ENVS 340 - Developing World
- ENVS 341 - Population and Resources
- ENVS 342 - Geography of the World Economy
- ENVS 343 - Urbanization: Processes and Patterns
- ENVS 372 - Natural Hazards Planning
- ENVS 420 - Intermediate Geographic Information Systems
- ENVS 421 - GIS Databases
- ENVS 422 - Advanced GIS
- ENVS 426 - Water Resources
- ENVS 427 - Soil Landscapes
- ENVS 428 - Biogeography
- ENVS 430 - Borderlands
- ENVS 431 - Pacific Rim
- ENVS 441 - Society, Space, and Natural Resources
- ENVS 442 - Regional Environmental and Economic Resource Modeling
- ENVS 443 - The Urban Environment
- ENVS 444 - Colonial Landscapes in the Pacific Northwest
- ENVS Capstone - One course from:
  - ENVS 410 - Agroecology and Sustainable Agriculture
  - ENVS 430 - Borderlands
  - ENVS 466 - Greening Business Applications
  - ENVS 474 - Planning for Sustainable Communities
  - ENVS 493 - Environmental Impact Assessment
  - ENVS 496 - Environmental Stewardship
  - ESCI 470 - Ecological Restoration
  - ESCI 490 - Environmental Risk Assessment
  - ESCI 491 - Oceanography of Puget Sound
  - ESCI 493 - Environmental Impact Assessment
- One course from: (minimum 10 credits)
  - ENVS 498A - Senior Thesis
  - ENVS 498B - Internship
  - ENVS 498C - Senior Project
  - ENVS 498D - International Study
- 16-17 Elective credits (300-400 level) under advisement

### **Geography/Social Studies, BA**

Department of Environmental Studies, Huxley College of the Environment

**112-121 credits (preparatory courses and major)**

### Introduction/What is the Study of Geography/Social Studies?

This major prepares students for a concentration in Geography to accompany their courses in Elementary EduGeography/Social Studies at Huxley College provides a breadth of knowledge in Geography, Environmental Studies, History, Economics, Anthropology, and Political Science. Designed to meet Washington State requirements for a teaching endorsement, Geography/Social Studies can also prepare you for teaching in non-traditional settings with or without the additional certification from Woodring College. Students with a degree in Geography/Social Studies can also go on to graduate work in Geography, Education, or Environmental Education.

To receive a recommendation for state of Washington certification, students must complete the teacher certification program, including the content methods course, SEC 426, which is offered by the Department of Secondary Education as 1) a part of the undergraduate BA degree, or 2) as a post-baccalaureate program, or 3) as part of the Master's in Education degree. See the Secondary Education section of this catalog for program admission, completion, and teaching certification requirements. Completion of this combined major leads to an endorsement in social studies.

### Why Consider a Geography/Social Studies Major?

If you want to teach Geography and Social Studies to children in grades 5-12 in a public or private school setting, this major will provide the subject area requirements.

#### Contact Information

##### Department Chair

Michael Medler  
Arntzen Hall 210  
360-650-3173  
Michael.Medler@wwu.edu

##### Geography Education Advisor

David Rossiter  
Arntzen Hall 232  
David.Rossiter@wwu.edu

##### Huxley College

##### Admissions Advisor

Kathryn Patrick  
Environmental Studies  
539  
360-650-3520  
Kathryn.Patrick@wwu.edu

##### Secondary Education Information

Janna Cecka  
Miller Hall 401C  
360-650-3347  
<http://www.wce.wwu.edu/sec>

##### Teacher Education Admissions

Miller Hall 214  
360-650-3313  
<http://www.wce.wwu.edu/admiss>

#### Sample Careers

Middle School Teacher | Land-Use Analyst | High School Teacher | Surveyor | Private School Teacher | Urban/Regional Planner | Ecologist | Natural Resource Specialist

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

You can declare yourself as an Environmental Studies (ENVS) major at any time, and there are several advantages to declaring during your freshman or sophomore year. Once you are declared as a phase I major you are assigned a Huxley faculty advisor based on your interests at the time of declaration. You can then meet with your faculty advisor to discuss which courses to take and when, how to prepare for graduate school or a future career, or simply to get assistance navigating through the Huxley curriculum. Your email is added to an email distribution list for Huxley majors so you will begin to receive notifications and general announcements, as well as information about jobs, internships, or research opportunities.

Those pursuing the Geography/Social Studies BA degree may begin as Phase I majors. Preparatory and major requirements differ from those of the other ENVS majors as outlined in this catalog. You can declare an ENVS Phase I major at any time by going to the central Huxley College office in Environmental Studies Building 539 and filling out a major declaration card. Those interested in information about secondary education programs may request an appointment through Woodring College of Education in Miller Hall 400, phone 360-650-3327, e-mail address Janna.Cecka@wwu.edu.

# ENVIRONMENTAL STUDIES

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors. Courses required for a state teaching endorsement must be completed with a grade of C (2.0) or better.

### Requirements

#### Preparatory Courses (29-36 credits)

- ENVS 203 - Physical Geography
- ENVS 204 - Human Geography
- ESCI 101 - Environmental Studies: A Scientific Approach
- One course from:
  - MATH 107 - Mathematical Reasoning and Its Applications
  - MATH 112 - Functions and Algebraic Methods
  - MATH 114 - Precalculus I
  - MATH 156 - Algebra With Applications to Business and Economics
- Any BCOM or CCOM GUR requirement course
- Two Natural Science GUR lab courses

#### Major (83-85 credits)

- ENVS 220 - Map Reading and Analysis
- ENVS 221 - Geographic Information Systems Survey
- ENVS 240 - Geography and World Affairs
- ENVS 319 - Research and Writing
- ENVS 330 - The United States: Society and Environment
- HIST 103 - Introduction to American Civilization: American History to 1865
- HIST 104 - Introduction to American Civilization: American History Since 1865
- HIST 121 - World History to 500
- HIST 123 - World History, 1500 to the Present
- HIST 391 - History of the Pacific Northwest
- One Physical Geography course from:
  - ENVS 325 - Geography of Landforms
  - ENVS 326 - Climatology
  - ENVS 372 - Natural Hazards Planning
  - ENVS 426 - Water Resources
  - ENVS 427 - Soil Landscapes
- Two Regional Geography courses from:
  - ENVS 331 - Canada: Society and Environment
  - ENVS 332 - The Pacific Northwest: Society and Environment
  - ENVS 333 - East Asia: Society and Environment
  - ENVS 334 - South Asia: Society and Environment
  - ENVS 335 - The Middle East: Society and Environment
- Three courses from:
  - ENVS 340 - Developing World
  - ENVS 341 - Population and Resources
  - ENVS 342 - Geography of the World Economy
  - ENVS 343 - Urbanization: Processes and Patterns
- 7 Elective credits under advisement from:
  - ENVS 300- and 400-level courses

- ❑ One course from:
  - ANTH 201 - Introduction to Cultural Anthropology
  - SOC 221 - Introduction to Population Issues
  - SOC 251 - Sociology of Deviant Behavior
  - SOC 255 - Social Organization of Criminal Justice
  - SOC 260 - The Family in Society
  - SOC 268 - Gender and Society
  - SOC 269 - Race and Ethnic Relations
- ❑ One course from:
  - ECON 206 - Introduction to Microeconomics
  - ECON 446 - Economics for the Teacher (preferred)
- ❑ One course from:
  - ECON 207 - Introduction to Macroeconomics
  - ECON 447 - Methods for Teaching About the National Economy in the Public Schools (preferred)
  - ❑ PLSC 250 - The American Political System

## **Urban Planning and Sustainable Development, BA**

Department of Environmental Studies, Huxley College of the Environment

### **126-131 Credits: Phase I, Phase II, and Major**

#### **Introduction/What is the Study of Urban Planning and Sustainable Development?**

This interdisciplinary program prepares students to enter professional fields concerned with the sustainability of the human and natural environment. The Urban Planning and Sustainable Development program consists of a core, and specialization electives. The core incorporates the interdisciplinary foundation of Huxley College's approach to the study of the environment. Urban planning and sustainable development concentrate studies in public policy development, law, and methods and processes of planning and decision making. The specialization elective component of the program is flexible. It allows students to develop an area of special interest, concentrating on a minor in an academic discipline, or to select from a number of thematically oriented clusters of courses.

Huxley's Urban Planning and Sustainable Development major emphasizes an interdisciplinary approach to solving complex problems that face communities from the local to the global level. The program emphasizes a concern for progressive change that is needed towards the design of equitable, healthful, livable, and sustainable communities for present and future generations. The curriculum combines urban planning, sustainable design, environmental policy, and environmental science to provide students with an understanding of the linkages between urban and natural systems and the multidimensional problems in urban development.

The program prepares students with the knowledge and skills necessary to make positive changes towards sustainability in an increasingly complex world. Graduates are prepared for careers in planning agencies, consulting firms, and nonprofit organizations at the local, state, and federal levels of government, as well as advanced graduate study. Students are accepted into the Urban Planning and Sustainable Design major based on the review of their application and portfolio of work demonstrating their affinity to integrate sustainable design, social equality concerns, and environmental systems principles, and on enrollment limits.

#### **Why Consider a Study of Urban Planning and Sustainable Development Major?**

Do you want to use your knowledge and skills to promote positive change in the environment? Do you love solving problems and implementing shared visions in both natural settings and urban communities? Are you interested in the laws and policies that govern environmental change? Then Planning and Sustainable Development is the major for you.



# ENVIRONMENTAL STUDIES

## Contact Information

<b>Department Chair</b>	<b>Huxley College Admissions Advisor</b>	<b>Planning Program Advisor</b>
Michael Medler	Kathryn Patrick	Nicholas Zaferatos
Arntzen Hall 210	Environmental Studies 539	Environmental Studies 444
360-650-3173	360-650-3520	Nicholas.Zaferatos@wwu.edu
Michael.Medler@wwu.edu	Kathryn.Patrick@wwu.edu	

## Sample Careers

Urban Planner | Environmental Lawyer | County Planner | Environmental Public Relations | Director of Non-Profit Organizations

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

You can declare yourself as an Environmental Studies (ENVS) major at any time, and there are several advantages to declaring during your freshman or sophomore year. Once you are declared as a phase I major you are assigned a Huxley faculty advisor based on your interests at the time of declaration. You can then meet with your faculty advisor to discuss which courses to take and when, how to prepare for graduate school or a future career, or simply to get assistance navigating through the Huxley curriculum. Your email is added to an email distribution list for Huxley majors so you will begin to receive notifications and general announcements, as well as information about jobs, internships, or research opportunities.

Some important information about the ENVS major:

1. Most students begin the ENVS major in Phase I, while completing the preparatory classes for ENVS Phase II admission (BIOL 101 or 204, PLSC 250, ECON 206, Math 114 or equivalent, CHEM 121, as well as ENVS 201, 202, and 203). You can declare an ENVS Phase I major at any time by going to the central Huxley College office in Environmental Studies Building 539 and filling out a major declaration card.
2. Admission to Phase II is a competitive process and requires the coursework above and a grade of B- or better in ENVS 201, ENVS 202, and ENVS 203, as well as a satisfactory GPA in all other coursework. You must then submit an application that includes a 1-2 page essay describing your reasons for wanting to enter into one of the five ENVS majors (Environmental Education, Environmental Studies, Geography, Urban Planning, or Policy) as well as a plan of study created with the Huxley admissions advisor and signed by a faculty advisor. Entry into the Urban Planning major also requires a portfolio, and entry into the Environmental Studies major requires the signature of a second departmental faculty member on the plan of study. ENVS Phase II applications are accepted at central Huxley College office in the fall, winter, and spring quarters.
3. Changes to your major, plan of study, or requests for a change of advisor during Phase II require completing a new declaration card.

If you have any questions, please contact an undergraduate advisor at the central Huxley College office in Environmental Studies Building 539, or by phone 360-650-2817, or 360-650-3748.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

#### PHASE I

#### Required Courses (33 credits):

- One course from:
  - BIOL 101 - Introduction to Biology
  - BIOL 204 - Introduction to Evolution, Ecology and Biodiversity
  - CHEM 121 - General Chemistry I
  - ECON 206 - Introduction to Microeconomics

- ENVS 201 - Understanding Environmental Data and Information
- ENVS 202 - Introduction to Environmental Studies and Sustainability
- ENVS 203 - Physical Geography
- PLSC 250 - The American Political System
- MATH 114 - Precalculus I

PHASE II

**ENVS CORE**

**Required Courses (17-20 credits):**

- One course from:
  - ENVS 303 - Human Ecology and Sustainability
  - ENVS 304 - Environment and Resource Policy
  - ENVS 305 - Environmental History and Ethics
- One course from:
  - ENVS 343 - Urbanization: Processes and Patterns
  - ENVS 361 - Introduction to Planning
- One course from:
  - ESCI 302 - Environmental Pollution
  - ESCI 310 - Environmental Systems
  - ESCI 325 - Fundamentals of Ecology
  - ESCI 392 - Introduction to Global Change
- One course from:
  - ESCI 321 - Oceanography
  - ESCI 330 - Natural History of the Pacific Northwest
  - ESCI 333 - Introduction to Environmental Toxicology
  - ESCI 361 - Water Quality
  - ESCI 463 - Wetlands for Wastewater Treatment

Urban Planning and Sustainable Development Major

Required Courses (76-78 credits):

- One course from:
  - ENVS 343 - Urbanization: Processes and Patterns (if not taken above)
  - ENVS 361 - Introduction to Planning (if not taken above)
  - ENVS 360 - Plan Graphics: Methods in Urban Planning Design Graphics
  - ENVS 370 - History of Planning
  - ENVS 372 - Natural Hazards Planning
  - ENVS 373 - Transportation Systems and Planning
- One course from:
  - ENVS 450 - United States Environmental Policy
  - ENVS 456 - U.S. and Washington State Environmental Regulations
  - ENVS 457 - Environmental Dispute Resolution
  - ENVS 461 - Land Use Law
  - ENVS 462 - Planning Theory
  - ENVS 470 - Planning Methods
  - ENVS 472 - Planning Studio
  - ENVS 473 - Planning Studio II Implement
- ENVS Capstone - One course from:
  - ENVS 410 - Agroecology and Sustainable Agriculture
  - ENVS 430 - Borderlands

## ENVIRONMENTAL STUDIES

- ENVS 466 - Greening Business Applications
- ENVS 474 - Planning for Sustainable Communities
- ENVS 493 - Environmental Impact Assessment
- ENVS 496 - Environmental Stewardship
- ESCI 470 - Ecological Restoration
- ESCI 490 - Environmental Risk Assessment
- ESCI 491 - Oceanography of Puget Sound
- ESCI 493 - Environmental Impact Assessment
- One course from (minimum of 10 credits):
  - ENVS 498A - Senior Thesis
  - ENVS 498B - Internship
  - ENVS 498C - Senior Project
  - ENVS 498D - International Study
- 20 credits - Specialized electives at the 300- or 400- course level, under advisement.

## Bachelor of Arts in Education

### Environmental Studies – Elementary, BAE

Department of Environmental Studies, Huxley College of the Environment

#### 51-54 credits (preparatory courses and major)

#### Introduction/What is the Study of Environmental Studies - Elementary Major?

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in elementary education. See the Elementary Education section of this catalog for program admission, completion, and teaching certification requirements. This program fulfills the academic major requirement for elementary education candidates who wish to have a solid background in studies related to the environment. Although environmental studies itself is not an endorsable area, some of the courses might be counted toward endorsement in other areas. Students should contact a faculty advisor for clarification of course work applications.

Students wishing to complete an Environmental Studies Elementary Education major in four years should complete all GUR requirements in their first two years. The preparatory courses may be used to fulfill both Huxley College and GUR requirements.

#### Why Consider an Environmental Studies - Elementary Major?

Are you excited about teaching children about the environment? Do you want to teach people to make environmental choices in their lives? Perhaps an Environmental Studies-Elementary major is for you!

#### Contact Information

##### Department Chair

Michael Medler  
Arntzen Hall 210  
360-650-3173  
Michael.Medler@wwu.edu

##### Huxley College Admissions

**Advisor**  
Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

##### Elementary Education Program Information

**Teacher Education Admissions**  
Miller Hall 150

##### Elementary Education Professional Program

Miller Hall 300  
360-650-3336  
<http://www.wce.wvu.edu/Depts/ELED/>

360-650-3313  
<http://www.wce.wvu.edu/admiss>

**Advisor and Program  
Manager**  
Ellen Kreider  
Miller Hall 301D  
360-650-7948  
Ellen.Kreider@wvu.edu

#### Sample Careers

Elementary Teacher

#### Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

You can declare yourself as an Environmental Studies (ENVS) major at any time, and there are several advantages to declaring during your freshman or sophomore year. Once you are declared as a phase I major you are assigned a Huxley faculty advisor based on your interests at the time of declaration. You can then meet with your faculty advisor to discuss which courses to take and when, how to prepare for graduate school or a future career, or simply to get assistance navigating through the Huxley curriculum. Your email is added to an email distribution list for Huxley majors so you will begin to receive notifications and general announcements, as well as information about jobs, internships, or research opportunities.

Those pursuing the Environmental Studies - Elementary BAE degree may begin as Phase I majors. Preparatory and major requirements differ from those of the other ENVS majors as outlined in this catalog. You can declare an ENVS Phase I major at any time by going to the central Huxley College office in Environmental Studies Building 539 and filling out a major declaration card. Those interested in information about elementary education programs may request an appointment through Woodring College of Education in Miller Hall 262, phone 360-650-3336, email address, [Ellen.Kreider@wvu.edu](mailto:Ellen.Kreider@wvu.edu)

### Grade Requirements

A grade of C (2.0) or better is required for courses in the elementary education professional program and all courses required for the endorsement.

All preparatory courses required for admission should be completed on a lettered or numeric grading scale, not P/NP, and must be completed with a grade of C (2.0) or better.

#### Requirements

##### Preparatory courses (8-9 credits)

One course from:

- BIOL 101 - Introduction to Biology
- BIOL 204 - Introduction to Evolution, Ecology and Biodiversity

One course from:

- ECON 206 - Introduction to Microeconomics
- PLSC 250 - The American Political System

##### Major (43-45 credits)

- ENVS 381 - Introduction to Education for Environment and Sustainability
- ENVS 382 - Curriculum for Environment and Sustainability
- ESCI 330 - Natural History of the Pacific Northwest

Two courses from:

- ENVS 303 - Human Ecology and Sustainability
- ENVS 304 - Environment and Resource Policy
- ENVS 305 - Environmental History and Ethics

# ENVIRONMENTAL STUDIES

- ❑ Electives under advisement (23-25 credits)
  - ENVS 300- and 400-level
  - ESCI 300- and 400-level

## Additional Requirements

## Elementary Education Professional Program Requirements (103-104 credits)

Department of Elementary Education, Woodring College of Education

### Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

### Admission and Declaration Process

Admission Requirements

### Grade Requirements

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

#### Professional Studies Core (25 credits)

- ❑ ELED 301 - Educational Psychology I: Development and Individual Differences
- ❑ ELED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ❑ ELED 310 - Education, Culture, and Equity
- ❑ ELED 370 - Introduction to Teaching
- ❑ I T 344 - Basic Instructional Technology Skills
- ❑ I T 442 - Classroom Use of Instructional Technology (Elementary)
- ❑ SPED 364 - Teaching Each Student

#### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-79 credits)

- ❑ One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- ❑ One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
  - ❑ ELED 425 - Social Studies for the Elementary School
  - ❑ ELED 470 - Developing Teaching
  - ❑ ELED 471 - Documenting Teaching
  - ❑ ELED 480 - Literacy: Beginning Communicators
  - ❑ ELED 481 - Literacy: Fluent Communicators
  - ❑ ELED 491 - September Experience

- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

## Geography – Elementary, BAE

Department of Environmental Studies, Huxley College of the Environment

### 66-73 credits (preparatory courses and major)

#### Introduction/What is the Study of Geography-Elementary?

This program is designed to provide necessary depth as well as breadth to teaching majors who wish to specialize in geography in the public school system.

This major satisfies the academic major requirement for teacher certification with an endorsement in elementary education and must be accompanied by the professional preparation program in elementary education. See the Elementary Education section of this catalog for program admission, completion, and teacher certification requirements. This program is designed to provide necessary depth as well as breadth to teaching majors who wish to specialize in geography in the public school system.

Students wishing to complete a Geography Elementary Education major should complete the general chemistry series during their freshman year and the general biology series during their sophomore year. Prospective environmental science majors are strongly advised to take additional preparatory course work that provides a strong background in chemistry, biology and mathematics. The preparatory courses may be used to fulfill both Huxley College and GUR requirements.

#### Why Consider a Geography-Elementary Major?

This major prepares students for a concentration in Geography to accompany their courses in Elementary Education.

Contact Information		
<b>Department Chair</b> Michael Medler Arntzen Hall 210 360-650-3173 Michael.Medler@wwu.edu	<b>Geography Education Advisor</b> David Rossiter Arntzen Hall 232 David.Rossiter@wwu.edu	<b>Huxley College Admissions Advisor</b> Kathryn Patrick Environmental Studies 539 360-650-3520 Kathryn.Patrick@wwu.edu
<b>Elementary Education Professional Program Information</b> Miller Hall 300 360-650-3336 <a href="http://www.wce.wwu.edu/Depts/ELED">http://www.wce.wwu.edu/Depts/ELED</a>	<b>Teacher Education Admissions</b> Miller Hall 150 360-650-3313 <a href="http://www.wce.wwu.edu/admiss">http://www.wce.wwu.edu/admiss</a>	<b>Elementary Education Professional Program Advisor and Program Manager</b> Ellen Kreider Miller Hall 301D 360-650-7948 Ellen.Kreider@wwu.edu

# ENVIRONMENTAL STUDIES

## Sample Careers

Elementary Teacher

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

You can declare yourself as an Environmental Studies (ENVS) major at any time, and there are several advantages to declaring during your freshman or sophomore year. Once you are declared as a phase I major you are assigned a Huxley faculty advisor based on your interests at the time of declaration. You can then meet with your faculty advisor to discuss which courses to take and when, how to prepare for graduate school or a future career, or simply to get assistance navigating through the Huxley curriculum. Your email is added to an email distribution list for Huxley majors so you will begin to receive notifications and general announcements, as well as information about jobs, internships, or research opportunities.

Those pursuing the Geography – Elementary BAE degree may begin as Phase I majors. Preparatory and major requirements differ from those of the other ENVS majors as outlined in this catalog. You can declare an ENVS Phase I major at any time by going to the central Huxley College office in Environmental Studies Building 539 and filling out a major declaration card. Those interested in information about elementary education programs may request an appointment through Woodring College of Education in Miller Hall 262, phone 360-650-3336, e-mail address [Ellen.Kreider@wvu.edu](mailto:Ellen.Kreider@wvu.edu).

### **Grade Requirements**

A grade of C (2.0) or better is required for courses in the elementary education professional program and all courses required for the endorsement.

All preparatory courses required for admission should be completed on a lettered or numeric grading scale, not P/NP, and must be completed with a grade of C (2.0) or better.

### Requirements

#### Preparatory Courses (29-36 credits)

- ENVS 203 - Physical Geography
- ENVS 204 - Human Geography
- ESCI 101 - Environmental Studies: A Scientific Approach
  - One course from:
    - MATH 107 - Mathematical Reasoning and Its Applications
    - MATH 112 - Functions and Algebraic Methods
    - MATH 114 - Precalculus I
    - MATH 156 - Algebra With Applications to Business and Economics
  - Any BCOM or CCOM GUR requirement course
  - Two Natural Science GUR lab courses

#### Major (37 credits)

- ENVS 220 - Map Reading and Analysis
- ENVS 221 - Geographic Information Systems Survey
- ENVS 240 - Geography and World Affairs
- ENVS 319 - Research and Writing
- ENVS 330 - The United States: Society and Environment
- ENVS 340 - Developing World
  - 20 Elective credits under advisement from:
    - ENVS 300- and 400-level courses

## Additional Requirements

### Elementary Education Professional Program Requirements (103-104 credits)

Department of Elementary Education, Woodring College of Education

#### Introduction

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

#### Admission and Declaration Process

Admission Requirements

#### Grade Requirements

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#### Professional Studies Core (25 credits)

- ELED 301 - Educational Psychology I: Development and Individual Differences
- ELED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Basic Instructional Technology Skills
- I T 442 - Classroom Use of Instructional Technology (Elementary)
- SPED 364 - Teaching Each Student

#### Elementary Program — Methods, Curriculum Content, and Field Experiences (78-79 credits)

One course from:

- ART 398 - Integrated Arts for Elementary Educators
- DNC 398 - Integrated Arts for Elementary Educators
- MUS 398 - Integrated Arts for Elementary Educators
- THTR 398 - Integrated Arts for Elementary Educators

One course from:

- ART 380 - Art Educating the Child
- DNC 433 - Creative Movement for Educators With Lab
- MUS 361 - Music for Elementary Teachers
- THTR 350 - Theatre for Youth
- THTR 351 - Creative Pedagogy
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8



## ENVIRONMENTAL STUDIES

- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

## Master of Education

### Environmental Education, Non-Thesis, MEd

*Huxley College of the Environment*

#### Graduate Faculty

**Abel, Troy D.**, PhD, environmental policy, conservation politics, civic environmentalism, policy analysis, globalization and environment.

**Bach, Andrew J.**, PhD, physical geography, geomorphology, soils and weathering, geoaerchology.

**Berardi, Gigi**, PhD, resources management, agroecology, international community development, food security, all-hazards planning.

**Bingham, Brian L.**, PhD, invertebrate biology, marine ecology, experimental design.

**Bodensteiner, Leo R.**, PhD, fish ecology.

**Buckley, Patrick H.**, PhD, economic and development geography, quantitative methods, GIS, environmental issues in Japan and China, quality of life, transborder environmental issues.

**Bunn, Andrew G.**, PhD, climate change, paleoecology, energy, ecological models.

**Bunn, Rebecca**, PhD, belowground ecology, toxicology, restoration, energy, the application of statistics

**Helfield, James M.**, PhD, ecology of rivers and riparian forests, terrestrialaquatic ecosystem linkages, watershed management and restoration.

**Homann, Peter S.**, PhD, biogeochemistry, soil sciences, forest ecology.

**Hollenhorst, Steven**, PhD, social dimensions of natural resources, wilderness and protected area policy and management.

**Landis, Wayne G.**, PhD, environmental toxicology, population biology, risk assessment.

**Love, Brooke**, PhD, geochemistry, ocean acidification, hydrothermal systems, chemistry of volatiles in the marine environment.

**Matthews, Robin A.**, PhD, freshwater ecology, aquatic toxicology, statistical ecology.

**McLaughlin, John F.**, PhD, terrestrial ecology, population biology, conservation biology.

**Medler, Michael J.**, PhD, biogeography, GIS, remote sensing, forest fire and wilderness management.

**Melious, Jean O.**, JD, environmental and land use law and policy, international environmental policy.

**Miles, John C.**, PhD, environmental education and history, public lands management.

**Miles, Scott B.**, PhD, sustainable development for risk reduction, social vulnerability, community disaster recovery, local self reliance.

**Mookherjee, Debnath**, PhD, comparative urbanization, regional development and planning, developing countries.

**Myers, O. Eugene**, PhD, environmental education, conservation psychology, human ecology, environmental history and ethics.

**Rossiter, David A.**, PhD, Canada, cultural-historical geographies, political ecologies.

**Rybczyk, John M.**, PhD, wetland ecology and management, ecosystem modeling, global climate change.

**Shull, David H.**, PhD, structure and function of marine benthic communities, pollution and marine

ecosystems.

**Sofield, Ruth M.**, PhD, aquatic toxicology, biochemical and genetic toxicology, environmental chemistry.

**Stangl, Paul A.**, PhD, pedestrian planning, new urbanism, urban landscapes, memory and meaning; Europe and Berlin.

**Sulkin, Stephen D.**, PhD, invertebrate biology, larval ecology.

**Wallin, David O.**, PhD, terrestrial ecology, forest ecosystems.

**Wang, Grace A.**, PhD, natural resource policy, cultural resources management, community-based forestry.

**Zaferatos, Nicholas C.**, PhD, community and environmental planning, sustainable development, European environmental policy, Native American political development.

Program Advisor: Dr. John C. Miles

## Goals

The program prepares environmental educators for settings outside the formal classroom, especially in not-for-profit organizations.

Environmental education may occur in formal classrooms, nature centers, outdoor and environmental education programs, government agency programs or in many other settings. The content of the program may include science, history, the arts or many other disciplines. The philosophy of environmental education at Huxley College is that it is to be broad and inclusive. Graduate students are expected to identify the path they wish to take in studying the field, and build their emphasis around a set of program requirements. The residency option is aimed at students who will approach environmental education in settings outside the formal classroom, especially in not-for-profit organizations. The option involves a partnership with the North Cascades Institute, which awards a certificate in Nonprofit Administration and Leadership for completion of the professional residency. The thesis/field project option serves teachers and others who wish to develop background and skill to incorporate environmental education into their educational work. All graduate students are expected to develop and implement creative projects that will aid their own teaching with the guidance and advice of the program advisor and other teachers.

## Prerequisites

All applicants should have experience in the field of environmental education and a basic background in natural history. Each applicant's background will be examined to determine if additional preparation is needed.

### *Application Information*

**Deadline:** Please refer to Graduate School deadline dates. This program specialization admits students for any quarter, but fall quarter is the best time to begin so that students in this option may go through the core program with students from the Residency option.

### *Supporting Materials:*

- Graduate Record Exam or Miller Analogies Test; applicants with advanced degrees are not required to submit test scores
- One- to two-page statement of purpose

### Program Requirements (47-53 credits)

- Core requirements (21 credits)
  - ESTU 571 - Environmental Education Foundations
  - ESTU 575 - Assessment, Evaluation and Research in Environmental Education
  - ESTU 587 - Conservation Psychology
  - ESTU 588 - Language, Discourse and Environment
  - ESTU 589 - Curriculum in Environmental Education
- Requirements in specialization (6-12 credits)

## ENVIRONMENTAL STUDIES

- ESTU 691 - Field Project
  - Electives (20 credits): Courses selected under advisement and including at least 10 credits in environmental studies, geography, or environmental science

### Environmental Education, Residency, Non-Thesis, MEd

*Huxley College of the Environment*

#### Graduate Faculty

**Abel, Troy D.**, PhD, environmental policy, conservation politics, civic environmentalism, policy analysis, globalization and environment.

**Bach, Andrew J.**, PhD, physical geography, geomorphology, soils and weathering, geoaerchology.

**Berardi, Gigi**, PhD, resources management, agroecology, international community development, food security, all-hazards planning.

**Bingham, Brian L.**, PhD, invertebrate biology, marine ecology, experimental design.

**Bodensteiner, Leo R.**, PhD, fish ecology.

**Buckley, Patrick H.**, PhD, economic and development geography, quantitative methods, GIS, environmental issues in Japan and China, quality of life, transborder environmental issues.

**Bunn, Andrew G.**, PhD, climate change, paleoecology, energy, ecological models.

**Bunn, Rebecca**, PhD, belowground ecology, toxicology, restoration, energy, the application of statistics.

**Helfield, James M.**, PhD, ecology of rivers and riparian forests, terrestrialaquatic ecosystem linkages, watershed management and restoration.

**Hollenhorst, Steven**, PhD, social dimensions of natural resources, wilderness and protected area policy.

**Homann, Peter S.**, PhD, biogeochemistry, soil sciences, forest ecology.

**Landis, Wayne G.**, PhD, environmental toxicology, population biology, risk assessment.

**Love, Brooke**, PhD, geochemistry, ocean acidification, hydrothermal systems, chemistry of volatiles in the marine environment.

**Matthews, Robin A.**, PhD, freshwater ecology, aquatic toxicology, statistical ecology.

**McLaughlin, John F.**, PhD, terrestrial ecology, population biology, conservation biology.

**Medler, Michael J.**, PhD, biogeography, GIS, remote sensing, forest fire and wilderness management.

**Melious, Jean O.**, JD, environmental and land use law and policy, international environmental policy.

**Miles, John C.**, PhD, environmental education and history, public lands management.

**Miles, Scott B.**, PhD, sustainable development for risk reduction, social vulnerability, community disaster recovery, local self reliance.

**Mookherjee, Debnath**, PhD, comparative urbanization, regional development and planning, developing countries.

**Myers, O. Eugene**, PhD, environmental education, conservation psychology, human ecology, environmental history and ethics.

**Rossiter, David A.**, PhD, Canada, cultural-historical geographies, political ecologies.

**Rybczyk, John M.**, PhD, wetland ecology and management, ecosystem modeling, global climate change.

**Shull, David H.**, PhD, structure and function of marine benthic communities, pollution and marine ecosystems.

**Sofield, Ruth M.**, PhD, aquatic toxicology, biochemical and genetic toxicology, environmental chemistry.

**Stangl, Paul A.**, PhD, pedestrian planning, new urbanism, urban landscapes, memory and meaning; Europe and Berlin.

**Sulkin, Stephen D.**, PhD, invertebrate biology, larval ecology.

**Wallin, David O.**, PhD, terrestrial ecology, forest ecosystems.

**Wang, Grace A.**, PhD, natural resource policy, cultural resources management, community-based forestry.

**Zaferatos, Nicholas C.**, PhD, community and environmental planning, sustainable development, European environmental policy, Native American political development.

Program Advisor: Dr. John C. Miles

### Goals

The program prepares environmental educators for settings outside the formal classroom, especially in not-for-profit organizations.

Environmental education may occur in formal classrooms, nature centers, outdoor and environmental education programs, government agency programs or in many other settings. The content of the program may include science, history, the arts or many other disciplines. The philosophy of environmental education at Huxley College is that it is to be broad and inclusive. Graduate students are expected to identify the path they wish to take in studying the field, and build their emphasis around a set of program requirements. The residency option is aimed at students who will approach environmental education in settings outside the formal classroom, especially in not-for-profit organizations. The option involves a partnership with the North Cascades Institute, which awards a certificate in Nonprofit Administration and Leadership for completion of the professional residency. The thesis/field project option serves teachers and others who wish to develop background and skill to incorporate environmental education into their educational work. All graduate students are expected to develop and implement creative projects that will aid their own teaching with the guidance and advice of the program advisor and other teachers.

### Prerequisites

All applicants should have experience in the field of environmental education and a basic background in natural history. Each applicant's background will be examined to determine if additional preparation is needed.

#### *Application Information*

**Admit Quarter:** This track admits students only in the summer.

**Deadline:** For priority consideration, applications should be received by February 1.

#### *Supporting Materials:*

- Graduate Record Exam or Miller Analogies Test; applicants with advanced degrees are not required to submit test scores
- North Cascades Institute supplemental application and questionnaire <http://www.ncascades.org/study>

#### Program Requirements (52-55 credits)

- Core requirements (21 credits)
  - ESTU 571 - Environmental Education Foundations
  - ESTU 575 - Assessment, Evaluation and Research in Environmental Education
  - ESTU 587 - Conservation Psychology
  - ESTU 588 - Language, Discourse and Environment
  - ESTU 589 - Curriculum in Environmental Education
- A written and oral comprehensive exam
- Requirements in specialization (28 credits)
  - ESTU 572 - Introduction to Place-Based Environmental Education
  - ESTU 573 - Resource Issues in the North Cascades
  - ESTU 574 - Cultural Studies of the North Cascades
  - ESTU 576 - Natural History and Science of the North Cascades
  - ESTU 577 - Nonprofit Administration for Environmental Educators
  - ESTU 578 - Practicum in Teaching Natural and Cultural History
  - ESTU 581 - Professional Writing and Presentation

## ENVIRONMENTAL STUDIES

□ Electives: 3-5 credits under advisement

**NOTE:** This option requires seven quarters of continuous enrollment and involves fees to the North Cascades Institute in addition to University tuition and fees.

### Environmental Education, Thesis, MEd

*Huxley College of the Environment*

#### Graduate Faculty

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**Berardi, Gigi**, PhD, resources management, agroecology, international community development, food security, all-hazards planning.

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**Bodensteiner, Leo R.**, PhD, fish ecology.

**Buckley, Patrick H.**, PhD, economic and development geography, quantitative methods, GIS, environmental issues in Japan and China, quality of life, transborder environmental issues.

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**Melious, Jean O.**, JD, environmental and land use law and policy, international environmental policy.

**Miles, John C.**, PhD, environmental education and history, public lands management.

**Miles, Scott B.**, PhD, sustainable development for risk reduction, social vulnerability, community disaster recovery, local self reliance.

**Mookherjee, Debnath**, PhD, comparative urbanization, regional development and planning, developing countries.

**Myers, O. Eugene**, PhD, environmental education, conservation psychology, human ecology, environmental history and ethics.

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**Rybczyk, John M.**, PhD, wetland ecology and management, ecosystem modeling, global climate change.

**Shull, David H.**, PhD, structure and function of marine benthic communities, pollution and marine ecosystems.

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**Stangl, Paul A.**, PhD, pedestrian planning, new urbanism, urban landscapes, memory and meaning; Europe and Berlin.

**Sulkin, Stephen D.**, PhD, invertebrate biology, larval ecology.

**Wallin, David O.**, PhD, terrestrial ecology, forest ecosystems.

**Wang, Grace A.**, PhD, natural resource policy, cultural resources management, community-based forestry.

**Zaferatos, Nicholas C.**, PhD, community and environmental planning, sustainable development, European environmental policy, Native American political development.

Program Advisor: Dr. John C. Miles

### Goals

The program prepares environmental educators for settings outside the formal classroom, especially in not-for-profit organizations.

Environmental education may occur in formal classrooms, nature centers, outdoor and environmental education programs, government agency programs or in many other settings. The content of the program may include science, history, the arts or many other disciplines. The philosophy of environmental education at Huxley College is that it is to be broad and inclusive. Graduate students are expected to identify the path they wish to take in studying the field, and build their emphasis around a set of program requirements. The residency option is aimed at students who will approach environmental education in settings outside the formal classroom, especially in not-for-profit organizations. The option involves a partnership with the North Cascades Institute, which awards a certificate in Nonprofit Administration and Leadership for completion of the professional residency. The thesis/field project option serves teachers and others who wish to develop background and skill to incorporate environmental education into their educational work. All graduate students are expected to develop and implement creative projects that will aid their own teaching with the guidance and advice of the program advisor and other teachers.

### Prerequisites

All applicants should have experience in the field of environmental education and a basic background in natural history. Each applicant's background will be examined to determine if additional preparation is needed.

### *Application Information*

**Deadline:** Please refer to Graduate School deadline dates. This program specialization admits students for any quarter, but fall quarter is the best time to begin so that students in this option may go through the core program with students from the Residency option.

### *Supporting Materials:*

- Graduate Record Exam or Miller Analogies Test; applicants with advanced degrees are not required to submit test scores
- One- to two-page statement of purpose

### Program Requirements (47-53 credits)

- Core requirements (21 credits)
  - ESTU 571 - Environmental Education Foundations
  - ESTU 575 - Assessment, Evaluation and Research in Environmental Education
  - ESTU 587 - Conservation Psychology
  - ESTU 588 - Language, Discourse and Environment
  - ESTU 589 - Curriculum in Environmental Education
- Requirements in specialization (6-12 credits)
  - ESTU 690 - Thesis Research
- Electives (20 Credits) Courses selected under advisement and including at least 10 credits in environmental studies, geography, or environmental science

## Master of Science

### Geography Thesis, MS

*Huxley College of the Environment*

#### Graduate Faculty

**Abel, Troy D.**, PhD, environmental policy, conservation politics, civic environmentalism, policy analysis, globalization and environment.

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**Miles, John C.**, PhD, environmental education and history, public lands management.

**Miles, Scott B.**, PhD, sustainable development for risk reduction, social vulnerability, community disaster recovery, local self reliance.

**Mookherjee, Debnath**, PhD, comparative urbanization, regional development and planning, developing countries.

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**Shull, David H.**, PhD, structure and function of marine benthic communities, pollution and marine ecosystems.

**Sofield, Ruth M.**, PhD, aquatic toxicology, biochemical and genetic toxicology, environmental chemistry.

**Stangl, Paul A.**, PhD, pedestrian planning, new urbanism, urban landscapes, memory and meaning; Europe and Berlin.

**Sulkin, Stephen D.**, PhD, invertebrate biology, larval ecology.

**Wallin, David O.**, PhD, terrestrial ecology, forest ecosystems.

**Wang, Grace A.**, PhD, natural resource policy, cultural resources management, community-based forestry.

**Zaferatos, Nicholas C.**, PhD, community and environmental planning, sustainable development, European environmental policy, Native American political development.

Program Advisor: Dr. Andy Bach, Arntzen Hall 226, (360-650-4774)

### Program Goals

The program prepares students in the development and management of environmental resources for careers in business, government, planning, consulting, teaching and research.

The focus of the MS degree in geography is on the development and management of environmental resources. The program is designed to allow students to develop and integrate social and natural science course work in a regional context. Students are provided with an opportunity to understand the spatial, ethical and societal (cultural) basis for the protection and management of resources.

### MS Specializations

- *Resource Conservation and Management:* Study of biophysical and socioeconomic processes in natural systems; a variety of perspectives and techniques are used to investigate and assess management and development policies.
- *Regional Development and Environmental Policy:* Study of regional economic development processes in the context of development and planning; environmental elements — natural and human — are examined in framing development plans and policies toward improving regional community service
- *Earth Surface Processes:* Study of physical processes occurring at the earth/atmosphere interface; coastal, glacial, hillslope, eolian, fluvial and soil environments are examples of the complex and dynamic systems which are examined under conditions of alteration by human or natural forces

### Prerequisites

Students with a degree in geography or allied fields, who meet the requirements of the Graduate School and who show evidence of superior scholarship, are particularly encouraged to apply. Students with degrees in fields other than geography will be considered but must acquire background, under advisement, through course work or other approved methods, in introductory human or cultural geography, introductory physical geography, regional geography, a GIS course, and two upper-division courses or equivalent in physical geography/geographic information systems or urban/economic geography. Knowledge of intermediate-level statistics is required of all students as evidenced by satisfactorily completing course work or as assessed by the program advisor. A plan for completion of any outstanding prerequisites must be described in the statement of purpose and approved by the Department of Environmental Studies Graduate Program Committee prior to admission.

### Admissions Information

**Deadline:** Students generally will be admitted into the MS in geography fall quarter only. Admission for subsequent quarters will be considered on a space-available basis. The Graduate Program Committee will begin reviewing application materials until the enrollment limit is reached or on June 1, whichever comes first. Because maximum student enrollment is limited, all applicants are strongly encouraged to submit application materials by February 1.

**TA Deadline:** To be considered for a graduate teaching assistantship, applicants must submit their application materials by February 1.

**Specific Test Requirements:** Graduate Record Exam, General Test; applicants with advanced degrees are not required to submit GRE scores.

**Supporting Materials:** An application for admission into the MS program in geography must include a one- to two page statement of purpose indicating which specialization the applicant is most interested in, explaining why the applicant wishes to pursue graduate studies in geography, and what future expectations she or he has for the MS degree. The statement may indicate a preferred faculty advisor; students are encouraged to review faculty research interests as described on the Huxley website, [www.wvu.edu/depts/huxley](http://www.wvu.edu/depts/huxley), prior to contacting potential advisors; students are admitted to the program only upon agreement of potential faculty advisors.



# ENVIRONMENTAL STUDIES

Program Requirements (minimum 45 to 69 credits)

- EGEO 501 - History and Philosophy of Geography
- EGEO 502 - Geographic Frameworks for Resource Analysis
- EGEO 503 - Research Problems
- EGEO 504 - Geographic Methods and Techniques
  - 17 credits of elective courses selected under advisement
- 12 credits of EGEO 690 - Thesis
  - 10 credits or less of approved 400-level work may be included in the program. No more than 4 elective credits of EGEO 595 (teaching practicum) may be used toward the MS degree in geography.

Additional Information

## **Thesis**

The thesis requires satisfactory completion of a research project emphasizing original theoretical or applied research and resulting in a comprehensive written thesis. The candidate will provide a public seminar based on the thesis, after an oral defense and acceptance of the thesis by the candidate's thesis committee.

## **Committee Makeup**

The thesis committee will have a minimum of two graduate faculty members from Huxley College; one will serve as chair. One of these two members is to be a geographer. The third member, with approval of the graduate advisor and Graduate School, can come from elsewhere.

## **Thesis Proposal Presentation**

The student is to make a public presentation of her/his proposed research, followed by questions and discussion. The purpose of this presentation is to allow the student to share his/her proposed research with a broader audience than the thesis committee to facilitate further refinement of the work. The student may be asked to expand the discussion on specific theoretical and/or empirical content of her/his intended thesis, as well as the broader scholarly field. The presentation will be made as soon as the student and the thesis committee have agreed upon a topic, typically in the third quarter of residency. Major changes to the thesis topic will require a new presentation at the discretion of the thesis committee.

## **Minor**

### **Disaster Risk Reduction Minor**

Department of Environmental Studies, Huxley College of the Environment

**24-27 credits**

#### **Introduction/What is the Study of Disaster Risk Reduction?**

Huxley College's disaster reduction and emergency planning minor is designed to introduce the student to natural hazards, their impacts on society, and strategies for reducing these impacts. All students at Western may apply for admittance through the Department of Environmental Studies office at any time.

## Why Consider a Disaster Risk Reduction Minor?

### Contact Information

#### Department Chair

Michael Medler  
Arntzen Hall 210  
360-650-3173  
Michael.Medler@wwu.edu

#### Huxley College Admissions Advisor

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

### Sample Careers

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Applicants should submit a WWU transcript and academic history, a WWU transfer equivalency report, if applicable, and a 500-word essay explaining how the minor would enhance the applicant's major studies and career goals. Admission to the minor is competitive and space is limited.

### Grade Requirements

A grade of C- or better is required for all students' minor courses.

### Requirements

- ENVS 362 - Theory and Practice of Emergency Management
- ENVS 372 - Natural Hazards Planning
- ENVS 465 - Disaster Risk Reduction
- ENVS 476 - Disaster Reduction and Emergency Planning Studio
- One course from (or equivalent course with advisor permission):
  - ENVS 203 - Physical Geography
  - GEOL 214 - Environmental Geology
- One course from (or equivalent course with advisor permission):
  - ENG 302 - Introduction to Technical and Professional Writing
  - ENVS 319 - Research and Writing
- Select one upper division course of 2 credits or more, from the list below, in consultation with minor advisor:
  - COMM 322 - Civil Discourse as Learning Interaction
  - COMM 428 - Organizational Communication
  - ENVS 340 - Developing World
  - ENVS 400 - Independent Study
  - ENVS 419 - Applications in GIS
  - ENVS 442 - Regional Environmental and Economic Resource Modeling
  - ENVS 454 - Environmental Policy Analysis
  - ENVS 457 - Environmental Dispute Resolution
  - ENVS 470 - Planning Methods
  - ENVS 482 - Community-Based Education for Sustainability
  - ENVS 497A - Perception of Environmental Risk
  - ESCI 392 - Introduction to Global Change
  - EXT 465 - Impact of Disaster

## ENVIRONMENTAL STUDIES

- FIN 454 - Risk Management and Insurance
- JOUR 330 - Principles of Public Relations
- PLSC 353 - State and Local Politics
- PLSC 390 - The Politics of Development
- SOC 340 - Sociology of Organizations
- SOC 348 - Global Health

### Energy Policy Minor

Combined minor offered by Huxley College of the Environment and the Department of Economics, College of Business and Economics.

#### 28 Credits

#### Introduction/What is the Study of Energy Policy?

Huxley College of the Environment and the Department of Economics offer a combined minor in Energy Policy. The goal of the program is to give students a good understanding of the basic science, environmental, and economic issues associated with the formation and analysis of energy-related policies.

#### Why Consider an Energy Policy Minor?

The minor in Energy Policy is an interdisciplinary program designed to meet the needs of a rapidly expanding green-energy economy. Graduates will be well prepared to enter the workforce as leaders, equipped with the knowledge, skills and applied expertise demanded by this dynamic and evolving sector of the global economy. The participating departments are recognized for their outstanding educational programs and demonstrated excellence. This program will support interdisciplinary learning while fostering an approach to problem solving that encourages cross-discipline thinking.

#### Contact Information

##### Department Chair

Michael Medler  
Arntzen Hall 210  
360-650-3173  
Michael.Medler@wwu.edu

##### Huxley College Admissions Advisor

Kathryn Patrick  
360-650-7722  
kathryn.patrick@wwu.edu

#### Sample Careers

This minor will be particularly valuable for individuals who seek leadership roles in business or government.

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Students must have confirmed admission to Western Washington University and met the grade and course requirements listed below. Students who wish to register for this minor should contact the Huxley Advising Office.

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors

#### Requirements

- ECON 383 - Environmental Economics

- ECON 384 - Energy Economics
- ECON 386 - The Economics of Electricity Markets
- ECON 484 - Economics of Alternative Energy
- ENVS 350 - Energy Policy and Politics
- ESCI 380 - Energy and Environment
- ESCI 480 - Applications in Energy Production

## Environmental Education Minor

Department of Environmental Studies, Huxley College of the Environment

### 26 credits

### Introduction/What is the Study of Environmental Education?

The goal of the environmental education minor is that the student understand and be able to use basic environmental education approaches within the context of such careers as environmental science, environmental policy, sustainability, and so on. The minor equips the student with conceptual foundations and beginning methods in environmental education together with natural history and humanistic background for understanding human relations with the environment.

### Why Consider an Environmental Education Minor?

#### Contact Information

##### Department Chair

Michael Medler  
Arntzen Hall 210  
360-650-3173  
Michael.Medler@wwu.edu

##### Huxley College Admissions Advisor

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

#### Sample Careers

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students must declare their minor in ES 539.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- ENVS 381 - Introduction to Education for Environment and Sustainability
- ENVS 382 - Curriculum for Environment and Sustainability
- ESCI 330 - Natural History of the Pacific Northwest
  - One course from:
    - ESCI 325 - Fundamentals of Ecology
    - ESCI 310 - Environmental Systems
  - One course from:
    - ENVS 305 - Environmental History and Ethics

## ENVIRONMENTAL STUDIES

- ENVS 481 - History of Conservation in America
- Specialized electives (10 credits):
  - ENVS 300- and 400-level
  - Or other approved 300- and 400- level course
  - Maximum 1 course allowed from:
- FAIR 331N - Natural History
- FAIR 335N - Visioning Sustainable Futures

### Environmental Policy Minor

Department of Environmental Studies, Huxley College of the Environment

#### 20-24 credits

#### Introduction/What is the Study of Environmental Policy?

#### Why Consider an Environmental Policy Minor?

##### Contact Information

##### Department Chair

Michael Medler  
Arntzen Hall 210  
360-650-3173  
Michael.Medler@wwu.edu

##### Huxley College Admissions Advisor

Kathryn Patrick  
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360-650-3520  
Kathryn.Patrick@wwu.edu

##### Sample Careers

##### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Students must declare their minor in ES 539.

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- □ ENVS 304 - Environment and Resource Policy
- One course from:
  - ENVS 202 - Introduction to Environmental Studies and Sustainability
  - ENVS 316 - Explorations in Environmental Studies
- One course from each of the four categories of environmental policy:
  - Law - One course from:**
    - ENVS 343 - Urbanization: Processes and Patterns
    - ENVS 461 - Land Use Law
  - Planning - One course from:**
    - ENVS 361 - Introduction to Planning
    - ENVS 443 - The Urban Environment

**Policy - One course from:**

- ENVS 450 - United States Environmental Policy
- ENVS 451 - Natural Resource Policy
- ENVS 454 - Environmental Policy Analysis

**Skills - One course from:**

- ENVS 456 - U.S. and Washington State Environmental Regulations
- ENVS 457 - Environmental Dispute Resolution

**Environmental Studies Minor**

Department of Environmental Studies, Huxley College of the Environment

**24 credits****Introduction/What is the Study of Environmental Studies?****Why Consider an Environmental Studies Minor?**

## Contact Information

**Department Chair**

Michael Medler  
Arntzen Hall 210  
360-650-3173  
Michael.Medler@wwu.edu

**Huxley College Admissions Advisor**

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

## Sample Careers

## Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Students must declare their minor in ES 539.

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- ENVS 202 - Introduction to Environmental Studies and Sustainability
- ESCI 101 - Environmental Studies: A Scientific Approach
- Two courses from
  - ENVS 303 - Human Ecology and Sustainability
  - ENVS 304 - Environment and Resource Policy
  - ENVS 305 - Environmental History and Ethics
  - ESCI 310 - Environmental Systems
- Electives under advisement (10 credits)
  - ENVS 320 - Introduction to Geographic Information Systems
  - ENVS 326 - Climatology
  - ENVS 372 - Natural Hazards Planning

## ENVIRONMENTAL STUDIES

- ENVS 428 - Biogeography
- ENVS 441 - Society, Space, and Natural Resources
- ENVS 300- and 400-level
- ESCI 300- and 400-level
- Maximum 1 course allowed from:
  - FAIR 331N - Natural History
  - FAIR 335N - Visioning Sustainable Futures
  - FAIR 339N - Environmental Issues of Indigenous Peoples of North America

### Geographic Information Systems Minor

Department of Environmental Studies, Huxley College of the Environment

#### 29-31 credits

#### Introduction/What is the Study of Geographic Information Systems?

#### Why Consider a Geographic Information Systems Minor?

##### Contact Information

###### Department Chair

Michael Medler  
Arntzen Hall 210  
360-650-3173  
Michael.Medler@wwu.edu

###### Huxley College Admissions Advisor

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

##### Sample Careers

##### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Students must declare their minor in ES 539.

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- One course from:
  - DSCI 305 - Applied Business Statistics or approved substitute
  - ENVS 322 - Analysis of Spatial Data
  - ESCI 340 - Biostatistical Analysis
- One course from:
  - ENVS 320 - Introduction to Geographic Information Systems
  - ENVS 419 - Applications in GIS
  - ENVS 321 - Computer Cartography
  - ENVS 420 - Intermediate Geographic Information Systems
  - ENVS 421 - GIS Databases

- ENVS 422 - Advanced GIS
- ENVS 423 - GIS Processing and Analysis
- ESCI 442 - Introduction to Remote Sensing

## Geography Minor

Department of Environmental Studies, Huxley College of the Environment

### 25 credits

### Introduction/What is the Study of Geography?

### Why Consider a Geography Minor?

#### Contact Information

##### Department Chair

Michael Medler  
Arntzen Hall 210  
360-650-3173  
Michael.Medler@wwu.edu

##### Huxley College Admissions Advisor

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

#### Sample Careers

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

Students must declare their minor in ES 539.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- ENVS 203 - Physical Geography
- ENVS 204 - Human Geography
- ENVS 220 - Map Reading and Analysis
- ENVS 330 - The United States: Society and Environment
  - 11 Elective credits under advisement from:  
ENVS 300- and 400-level courses

## Sustainable Design Minor

Combined minor offered by the Department of Environmental Studies, Huxley College of the Environment and the Department of Engineering Technology, College of Sciences and Technology

### 30-32 Credits



# ENVIRONMENTAL STUDIES

## Introduction/What is the Study of Sustainable Design?

Huxley College of the Environment and the Department of Engineering Technology jointly offer a minor in Sustainable Design. The goal of the program is to enable students with strengths in design or in environmental studies to gain complementary skills in the other area so as to pursue sustainable design careers more effectively. The program is also open to students from any area that would benefit by the set of concepts and skills offered.

## Why Consider a Sustainable Design Minor?

### Contact Information

#### Department Chair

Michael Medler  
Arntzen Hall 210  
360-650-3173  
Michael.Medler@wwu.edu

#### Huxley College Admissions Advisor

Kathryn Patrick  
Environmental Studies 539  
360-650-3520  
Kathryn.Patrick@wwu.edu

### Sample Careers

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process)

Students are accepted into the sustainable design minor by application based on their demonstrated affinity to integrate environmental systems knowledge and sustainable design principles, and on enrollment limits. Students submit an application and a portfolio of work. Applications are accepted semi-annually on the third Friday of fall and spring quarters. See WWU Industrial Design website and the Huxley College of the Environment website.

## Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- ENVS 361 - Introduction to Planning
- ENVS 474 - Planning for Sustainable Communities
- ETEC 311 - Perspective and Rendering I
- ETEC 312 - Industrial Design CAD Skills
- One course from:\*
- ESCI 302 - Environmental Pollution
- ESCI 310 - Environmental Systems
- ESCI 321 - Oceanography
- ESCI 325 - Fundamentals of Ecology
- ESCI 380 - Energy and Environment
- ESCI 392 - Introduction to Global Change
- \*or approved substitute
- One course from:
- ENVS 303 - Human Ecology and Sustainability
- ENVS 304 - Environment and Resource Policy
- ENVS 305 - Environmental History and Ethics

- FAIR 335N - Visioning Sustainable Futures
  - Electives under advisement (8 credits):
  - ACCT 484 - Environmental Accounting/ Sustainability Reporting
  - ECON 383 - Environmental Economics
  - ECON 384 - Energy Economics
  - ENVS 450 - United States Environmental Policy
  - ENVS 451 - Natural Resource Policy
  - ENVS 456 - U.S. and Washington State Environmental Regulations
  - ENVS 470 - Planning Methods
  - ENVS 471 - Campus Sustainability Planning Studio
  - ESCI 302 - Environmental Pollution\*\*
  - ESCI 310 - Environmental Systems\*\*
  - ESCI 321 - Oceanography\*\*
  - ESCI 325 - Fundamentals of Ecology\*\*
  - ESCI 380 - Energy and Environment\*\*
  - ESCI 392 - Introduction to Global Change\*\*
  - ESCI 431 - Watershed Biogeochemistry
  - ESCI 493 - Environmental Impact Assessment
  - ETEC 214 - Sophomore Industrial Design I
  - ETEC 215 - History of Industrial Design
  - ETEC 216 - Sophomore Industrial Design II
  - ETEC 231 - Design Problems in Woodworking
  - ETEC 315 - Perspective and Rendering II
- \*\* ESCI courses cannot be counted twice

## Environmental Studies Courses

### **ENVS 110 - Ecogastronomy: The Art and Science of Food**

An introduction to the art and science of food production through scholarly and journalistic critiques of food systems and cultures. Topics include the Slow Food movement and gastronomical sciences, ecological agriculture, sensory taste science, and the political economy of food.

Credits: 2

GUR Attributes: SSC

### **ENVS 111 - Ecogastronomy Discussion**

This is a discussion-oriented class to accompany ENVS 110: An introduction to the art and science of food. The class will include discussion of the regional geography of agriculture and consumption patterns, Slow Food as a social movement, and ideas for sensible food systems in a university setting.

Credits: 1

### **ENVS 116 - Sustainability Literacy I**

This course is an introductory course in sustainability literacy. This course reviews emerging issues in global sustainability studies and introduces students to writing and problem solving skills. Emphases are in multidisciplinary approaches that address complex social, environmental, and economic interrelationships in sustainable development.

Credits: 3

### **ENVS 118 - Topics in Environmental Studies - College Quest**

Study of various environmental topics. Supported through Extended Education & Summer Programs, College Quest youth program is offered exclusively to high school students (grades 10-12). Not available to Huxley majors. Repeatable to 4 credits. S/U grading.

# ENVIRONMENTAL STUDIES

Credits: 1-2  
Grade Mode: S/U

## **ENVS 195 - Local Perspectives on Environment and Sustainability (Viking Launch)**

Explore climate science through research and field observations, with a social focus on the Nooksack River watershed and examine the environmental impacts of our energy, waste, food and transportation choices. Discover how local schools, governments, non-profit organizations, businesses and individuals are working together to help solve the problems associated with climate change and take action by participating in a service learning project. Acquire carbon footprint analysis training and work with staff at the Washington Department of Ecology Bellingham field office to implement their 'Carbon Smart at Work' program. Document your experience with photographs, field audio and writing to create a culminating presentation. S/U grading.

Credits: 2  
Grade Mode: S/U

## **ENVS 201 - Understanding Environmental Data and Information**

This class will help students navigate the complicated intersection of peer-reviewed scientific literature and the popular news media outlets that often report on environmental research and news. The intention of the class is to introduce the basic logical, statistical, and analytical tools necessary for broad participation in environmental fields including both physical and social sciences.

**Prerequisites & Notes:** Suitable Intermediate Math Placement Test score or MATH 112 with a C- or better.

Credits: 3  
GUR Attributes: QSR

## **ENVS 202 - Introduction to Environmental Studies and Sustainability**

A basic overview of environmental issues in the United States and globally. An emphasis will be placed on environmental and human sustainability in a social science context.

Credits: 3  
GUR Attributes: SSC

## **ENVS 203 - Physical Geography**

Principles and techniques in analysis of areal distribution in the natural environment; landforms, water, climate, soils, vegetation.

**Prerequisites & Notes:** Minimum of one university-level natural science GUR.

Credits: 4  
GUR Attributes: LSCI

## **ENVS 204 - Human Geography**

This course explores regional patterns of population and settlement across the globe and introduces students to concepts and techniques in the spatial analysis of economic, cultural, and political organizations.

Credits: 4  
GUR Attributes: SSC

## **ENVS 220 - Map Reading and Analysis**

Interpretation of map symbols and content at different scales; introduction to coordinate systems and map projections; analysis of different types of maps and charts.

Credits: 3

## **ENVS 221 - Geographic Information Systems Survey**

Introduction to computer-based tools for describing, analyzing and providing decision making on geographical issues. Provides a survey of computer- and Web- based tools such as GIS, electronic atlases, thematic mapping systems, computer cartography and remote sensing through lectures and hands-on activities.

Credits: 2

## **ENVS 240 - Geography and World Affairs**

Geographical analysis of selected demographic, economic, political and social problems of the contemporary world.

Credits: 2  
GUR Attributes: SSC

## **ENVS 303 - Human Ecology and Sustainability**

The course provides an in-depth look at human and environmental systems interaction. As such, students need familiarity with environmental concepts, either through ENVS 202 or through the Huxley major prerequisites. Some students with self-designed majors or Huxley minors may also be well prepared and can enter through instructor permission.

**Prerequisites & Notes:** ENVS 202 or ESTU 202 or Huxley major prerequisites or instructor permission.  
Credits: 4

### **ENVS 304 - Environment and Resource Policy**

An examination of environmental and resource policy in the United States. What is policy, how is it made and how does it change? The history of environmental policy is examined, and current environmental policy surveyed. Federal, state, regional and local jurisdictions and how they interact in the policy arena are examined. Primary forces affecting environmental policy are reviewed and analyzed. Several case studies are presented.

**Prerequisites & Notes:** ENVS 202 or ESTU 202 or Huxley major or instructor permission.  
Credits: 4

### **ENVS 305 - Environmental History and Ethics**

Nature and nation are inextricably connected in American history, but American identification with nature has often led in surprising directions. This course reviews how various human activities have historically depended on and interacted with the natural world. It traces how these interactions have changed places, people, animals and institutions over the last five hundred years in what is now the United States. The focus will be on how culture, science, and politics have mixed in American environmental history. WP2

**Prerequisites & Notes:** BIOL 101 or BIOL 204; PLSC 250; ECON 206; MATH 114 or equivalent or higher; CHEM 121; or instructor permission.  
Credits: 4

### **ENVS 306 - Readings in Env Studies**

This is a variable credit, directed readings course. Course will foster critical analysis and independent thought and learning in the field of environmental

studies. Students will critically examine data and information used to support a particular point of view. This course is only offered through EESP as correspondence course.

**Prerequisites & Notes:** ENVS 202 or ESTU 202 or instructor permission.  
Credits: 1-6

### **ENVS 307 - Writing in Environmental Studies**

This is a variable credit, directed writing intensive course. Course will foster critical analysis and independent thought and learning in the field of environmental studies. Students will critically examine data and information used to support a particular point of view. The course is designed to enable students to satisfy from one to three upper-division writing proficiency points. This course is only offered through EESP as a correspondence course.

**Prerequisites & Notes:** ENVS 202 or ESTU 202 or instructor permission.  
Credits: 1-3

### **ENVS 308 - National Parks: History of an American Innovation**

Survey of the history, purpose, and meaning of the US national park system; and what the parks reveal about American culture and attitudes toward nature. This course is only offered through EESP as a correspondence course.

**Prerequisites & Notes:** ENVS 202 or ESTU 202 or instructor permission.  
Credits: 4

### **ENVS 316 - Explorations in Environmental Studies**

Introduction to solving environmental problems in a policy context, applications of analytical, written, verbal and quantitative skills to address environmental concerns in an interdisciplinary manner.

**Prerequisites & Notes:** Declared Huxley major or instructor permission.  
Credits: 4

### **ENVS 319 - Research and Writing**

# ENVIRONMENTAL STUDIES

Source materials, research and writing techniques; emphasis on the nature and development of geography and planning.

**Prerequisites & Notes:** ENVS 203 or EGEO 203, ENVS 204 or EGEO 201 or instructor permission.  
Credits: 3

## **ENVS 320 - Introduction to Geographic Information Systems**

An introduction to geographic information systems (GIS), examining the nature of spatial data and a basic theory of data manipulation and display, data sources, input, manipulation, and analysis, as well as data output, and basic cartographic production.

Credits: 4

## **ENVS 321 - Computer Cartography**

Map layout, design and production using computer techniques. Methods and limitations of graphic communication are emphasized.

**Prerequisites & Notes:** ENVS 320 or EGEO 350; or instructor permission.  
Credits: 2

## **ENVS 322 - Analysis of Spatial Data**

Intermediate level statistical techniques commonly used in solving geographic problems.

**Prerequisites & Notes:** ENVS 201 or ESTU 201.  
Credits: 4

## **ENVS 325 - Geography of Landforms**

Spatial and temporal variation of landforms; regional analysis of landforms and quaternary reconstruction; relationships of landforms with physical and human systems; applied geomorphology. Field trips.

**Prerequisites & Notes:** ENVS 203 or EGEO 203, GEOL 101 recommended.  
Credits: 4

## **ENVS 326 - Climatology**

Climatic processes, including patterns of climates at various scales; applied climatology; climatic change.

**Prerequisites & Notes:** ENVS 203 or EGEO 203,

PHYS 101 or PHYS 114 recommended.  
Credits: 4

## **ENVS 327 - The Soil Environment**

A soil science perspective on soils as a natural body. Introduction to the physical and chemical characteristics of soil, the description and classification of soils under the USDA system, and the processes of soil formation.

**Prerequisites & Notes:** ENVS 203 or EGEO 203 or GEOL 211.  
Credits: 4

## **ENVS 330 - The United States: Society and Environment**

Topical and regional approaches to selected elements of the physical environment and cultural and economic characteristics of the nation.

**Prerequisites & Notes:** ENVS 204 or EGEO 201 or instructor permission.  
Credits: 3

## **ENVS 331 - Canada: Society and Environment**

This course explores relationships between people and the environment in the territory that has come to be known as Canada; emphasis is placed upon the history of such relationships. Topics include: physical geography, Aboriginal geographies, Native-Newcomer interactions, evolving and contested political boundaries, resource use and ecological crisis, and urban development.

**Prerequisites & Notes:** ENVS 204 or EGEO 201 or HIST 277 or C/AM 200 or instructor permission.  
Credits: 3

## **ENVS 332 - The Pacific Northwest: Society and Environment**

Examination of distribution and character of economic activity, population plus settlement and role of climate, landforms and resources in distributions. Offered alternate years.

**Prerequisites & Notes:** ENVS 203 or EGEO 203 or ENVS 204 or EGEO 201 or instructor permission.  
Credits: 3

## **ENVS 333 - East Asia: Society and Environment**

Survey of physical environment, sustainability, peoples, regions and resources of East Asia; problems and prospects.

**Prerequisites & Notes:** ENVS 204 or EGEO 201 or EAST 201 or EAST 202 or instructor permission.

Credits: 3

GUR Attributes: ACGM

**ENVS 334 - South Asia: Society and Environment**

Systematic analysis of the physical and human environment or South Asia; emphasis on developmental problems.

**Prerequisites & Notes:** ENVS 204 or EGEO 201 or instructor permission.

Credits: 3

GUR Attributes: ACGM

**ENVS 335 - The Middle East: Society and Environment**

Environments, economies and societies of Southwest Asia and North Africa; emphasis on current problems.

**Prerequisites & Notes:** ENVS 204 or EGEO 201 or instructor permission.

Credits: 3

GUR Attributes: ACGM

**ENVS 340 - Developing World**

Analysis of selected geographical problems of major countries and regions of Africa, Asia and Latin America; population pressure, agricultural productivity; resource appraisal and utilization; urban industrial growth; urban and regional planning.

**Prerequisites & Notes:** ENVS 204 or EGEO 201  
Credits: 4

**ENVS 341 - Population and Resources**

World distribution of population, patterns of population composition, fertility and mortality. Inter- and Intra- regional migrations; resources and population growth.

**Prerequisites & Notes:** ENVS 204 or EGEO 201 or SOC 321

Credits: 4

**ENVS 342 - Geography of the World Economy**

Location analysis of the geography of global economic activities; interrelationships of resources, development, industry, trade, transportation, culture, demographics, and migration.

**Prerequisites & Notes:** ENVS 204 or EGEO 201 or ECON 206 or instructor permission.

Credits: 4

GUR Attributes: SSC

**ENVS 343 - Urbanization: Processes and Patterns**

Geographic focus upon the development, functions and problems of the modern city with emphasis on American patterns.

**Prerequisites & Notes:** ENVS 204 or EGEO 201  
Credits: 4

**ENVS 350 - Energy Policy and Politics**

This course will allow students to understand the history of energy policy within the U.S.; gain an understanding of the major actors in energy policy; and explore the implications for energy policy from local to global levels. A specific focus will be placed on energy issues as they pertain to the Pacific Northwest.

**Prerequisites & Notes:** Huxley or CBE or CST major or instructor permission.

Credits: 4

**ENVS 359 - Greening Business Policy and Practice**

This course will provide both a survey and applications of major U.S. and Washington state policies and practices supporting the greening of business. Also offered as MGMT 359.

**Prerequisites & Notes:** Completion of Huxley ENVS Major Phase I or ESCI Major or CBE Major or permission of instructor.

Credits: 4

**ENVS 360 - Plan Graphics: Methods in Urban Planning Design Graphics**

Introduction to the application of graphic design technology to plan design using computer aided design, publication layout, image presentation, and video editing software.

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**Prerequisites & Notes:** Declaration of Major in Urban Planning and Sustainable Development.  
Credits: 2

## **ENVS 361 - Introduction to Planning**

Principles and practices in urban development and public planning in the United States. Concepts of planning as a community process and professional activity. Evolution of planning ideas in response to changing social, economic, and environmental conditions within the American political framework. Survey of the specialized fields in planning practice, emphasizing the emerging field of environmental planning.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.  
Credits: 3

## **ENVS 362 - Theory and Practice of Emergency Management**

This course provides a broad introduction to the historical and theoretical perspectives of emergency management policies and practices. Students will learn how theories are used to inform the practice of disaster and emergency management. Fundamental principles of risk, vulnerability, and emergency planning are examined relative to natural, technologic, and health related hazards, from an interdisciplinary perspective. Federal, state, and municipal legislation and regulations will be examined for their implications on mitigation, preparedness, response and recovery. Students will understand the roles and professional responsibilities of emergency managers in preparing and implementing all-hazards plans and policies.

Credits: 4

## **ENVS 368 - Exploring Great Cities**

Field methods course examining great cities. Concepts and themes in human geography and urban planning provide a framework for the analysis of the human environments and the forces and efforts that shape them. Course is repeatable up to 8 credits; course may only be taken once for each destination.

**Prerequisites & Notes:** Instructor permission.

Credits: 2-4

## **ENVS 370 - History of Planning**

Survey of the origins, development and significance of the planning movement in the United States and the profession that emerged from it. The seminal innovators, practices and achievements in American planning.

**Prerequisites & Notes:** ENVS 361 or ESTU 369 or instructor permission.  
Credits: 3

## **ENVS 372 - Natural Hazards Planning**

This interdisciplinary course emphasizes creation of safer human settlements through application of hazard mitigation strategies in community planning, site selection and layout, infrastructure design, and building design. The course provides a survey of meteorological and geological hazards. It integrates insights from environmental design disciplines for minimizing losses from natural hazards such as global warming, severe storms, wildfires, flooding, earthquakes, and landslides. These approaches can also be applied to human-caused hazards such as levee failures, chemical and radiological releases, and terrorism. It also addresses how hazard mitigation can increase long-term community resilience through pre-disaster and post-disaster recovery planning. The course will discuss the mandates and responsibilities of various levels of government. Students will gain hands-on experience through projects assessing state and local mitigation plans and case studies. This course is intended to provide an understanding of natural hazards, as well as the tools, techniques, and processes available for their mitigation. It blends various specialized areas of knowledge within the overall purpose of creating safer, more disaster resistant and sustainable communities. Students leave the class with a foundation in disaster-resistant community design principles, including land use, structural, infrastructure, and financing solutions. They also obtain an introductory knowledge of routine planning, design, engineering and public policy tools for reducing losses from natural hazards, and facilitating suitable post-disaster redevelopment (e.g., general planning, zoning, subdivision review, transportation systems, water

systems, geotechnical and structural design).

**Prerequisites & Notes:** ENVS 203 or EGEO 203 or GEOL 211; ENVS 361 or ESTU 369 or instructor permission.

Credits: 4

### **ENVS 373 - Transportation Systems and Planning**

Locational and network analysis and modeling of local, regional and national systems. Also, investigation of alternatives to traditional transportation modes.

**Prerequisites & Notes:** ENVS 361 or ESTU 369; or instructor permission.

Credits: 3

### **ENVS 381 - Introduction to Education for Environment and Sustainability**

An introduction to environmental safety and a review of current thinking and practices including connections to sustainability. Focus on history, evolution, and need for environmental education, and on its goals and principles, content, settings, methods and processes approached through reading, discussion and project work.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission.

Credits: 4

### **ENVS 382 - Curriculum for Environment and Sustainability**

Critical review of existing curricula, learning theory and learning objectives are examined and strategies for attaining these objectives studied and practiced. The qualities of the ideal environmental education curriculum are identified. Students practice curriculum writing and teaching. Students observe in real world classroom and outdoor teaching settings.

**Prerequisites & Notes:** ENVS 381 or ESTU 371

Credits: 4

### **ENVS 404 - Environmental Grant Writing**

An introduction to the essential skills required to identify potential grant sources and prepare effective environmental grant applications.

**Prerequisites & Notes:** Junior or senior standing or instructor permission.

Credits: 1

### **ENVS 405 - Puget Sound research**

Students attend a conference as participants, learning how the scientific community shares information. Students will prepare by reading scientific journal research articles related to the Puget Sound area. Students will also conduct their own review of scientific literature, with the class culminating with a formal student conference.

**Prerequisites & Notes:** Huxley on the Peninsula major or permission of instructor.

Credits: 3

### **ENVS 406 - Advanced Readings in Environmental Studies**

This is a variable credit, advanced readings course allowing interested students to earn from 1 to 6 academic credits through their own personal study of environmental topics. The purpose of the course is to foster independent thought and learning in the field of environmental studies placing most of the responsibility for learning on the student. This course is only offered through EESP as a correspondence course.

**Prerequisites & Notes:** Junior Standing; ENVS 202 or ESTU 202; or instructor permission.

Credits: 1-6

### **ENVS 410 - Agroecology and Sustainable Agriculture**

Ecological concepts and principles applied to design and management of sustainable food production systems. Consideration given to food and farm politics and economics, as well as the experience of place and policies for relocalization. Includes case studies and laboratory/field experience in sustainable agriculture horticulture and strategies for resilience. Offered alternate years.

**Prerequisites & Notes:** Senior status.

Credits: 4

### **ENVS 411 - Agroecology Practicum**

Field and project work in agroecology and sustainable agriculture design that integrates ecological principles within sociocultural and



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economic frameworks. Consideration of soil and plant ecology, tillage systems and erosion control, resource cycling, and integrated nutrient systems that compromise best management practices. Required field trips. Offered in alternate years.

**Prerequisites & Notes:** ENVS 410 or ESTU 410 or instructor permission.

Credits: 4

### **ENVS 412 - Environmental Journalism**

Goal is to equip students to report and write clearly, critically and constructively on environmental and natural resource issues. Emphasis on writing articles for publication involves reading, discussion, and much research and writing.

**Prerequisites & Notes:** JOUR 207; ESCI 101 or ENVS 202 or ESTU 202

Credits: 4

### **ENVS 413 - The Planet Staff**

Practical involvement in writing, photography, illustration, design and production of a student environmental magazine issued once each quarter. Repeatable up to 9 credits.

**Prerequisites & Notes:** JOUR 207 or instructor permission.

Credits: 3

### **ENVS 414 - Editing the Planet**

Publication editing and development; creating and implementing budget and advising on budget decisions; acting as mentor to assigned staff members; preparing reports and presentations for class and instructor; assisting with and taking part in workshops; office management and security; learning personnel communication skills; using advanced publication software and technology; making self-evaluation and production reports for advisor. Repeatable to a maximum of 12 credits. This course may not be taken concurrently with a staff course.

**Prerequisites & Notes:** Open to editors only.

Credits: 4

### **ENVS 416 - Field Seminars in Environmental Studies**

Study of various environmental topics and issues of the Pacific Northwest. Course is supported through Extended Education & Summer Programs/Continuing Education North Cascades Institute. Specific topics designed for adult learners. Not available to Huxley College majors. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Not available to Huxley majors.

Credits: 1-6

Grade Mode: S/U

### **ENVS 419 - Applications in GIS**

Applied use of GIS software to existing databases for analysis and final outputs as maps, tables and charts. Mastery of the software will be at the beginner's level, master of GIS techniques will be at the thematic mapping level. Data will be drawn from electronic databases and include tabular, cartographic, and remotely sensed.

**Prerequisites & Notes:** ENVS 320 or EGEO 350 or permission of instructor.

Credits: 3

### **ENVS 420 - Intermediate Geographic Information Systems**

The collection, storage, analysis, and display of spatial data to produce information essential for planning and making decisions in public agencies and private businesses. Principles and concepts of GIS design and operation; practical experience in GIS application through lab assignments.

**Prerequisites & Notes:** ENVS 320 or EGEO 350 or ENVS 419 or ESTU 401; or approved substitute; or instructor permission.

Credits: 4

### **ENVS 421 - GIS Databases**

The design and development of cartographic databases for use in geographic information systems; interactive image editing, production of check-plots, and file processing to form geographic entity files. Exploration of alternative cartographic products via computer mapping software.

**Prerequisites & Notes:** ENVS 420 or EGEO 450

Credits: 4

**ENVS 422 - Advanced GIS**

Analysis and application of cartographic techniques and geographic information systems to practical mapping and resource management projects.

**Prerequisites & Notes:** ENVS 421 or EGEO 451  
Credits: 4

**ENVS 423 - GIS Processing and Analysis**

Provides students with an introduction to advanced GIS geoprocessing using spatial models and object-oriented scripting. Intended for students familiar with GIS concepts and computer applications; the course is project based. Through lectures, demonstrations, and hands-on exercises, participants will learn different methods for automating spatial data processing tasks including data management, geoprocessing, analytic workflows and data delivery.

**Prerequisites & Notes:** ENVS 419 or ESTU 401 or ENVS 420 or EGEO 450 or permission of instructor.  
Credits: 3

**ENVS 426 - Water Resources**

The role of water in the environment; the nature of water use and resulting problems; processes which underlie comprehensive water resource planning and basin management; data analysis and presentation. Offered alternate years.

**Prerequisites & Notes:** ENVS 326 or EGEO 331; or permission of instructor.  
Credits: 4

**ENVS 427 - Soil Landscapes**

Advanced topics in soils, including the functional relationships between climate, soils and vegetation, soil erosion, landscape patterns of soil, and the application of soils in paleoenvironmental reconstruction. Students will undertake research projects in the field.

**Prerequisites & Notes:** ENVS 327 or EGEO 332 or permission of instructor.  
Credits: 4

**ENVS 428 - Biogeography**

Study of the spatial distribution patterns of organisms through the integration of the many factors that have interacted to determine these patterns. Offered alternate years.

**Prerequisites & Notes:** ENVS 203 or EGEO 203; ENVS 326 or EGEO 331 or ESCI 325; or permission of instructor.  
Credits: 3

**ENVS 430 - Borderlands**

Investigation of the geography and issues associated with the growing importance of the United States' border regions, especially our northern border with Canada; selected trans-border environmental, sustainability, economic, and urban topics.

**Prerequisites & Notes:** ENVS 330 or EGEO 320 or ENVS 331 or EGEO 328 or ENVS 332 or EGEO 327 or C/AM 200 or instructor permission.  
Credits: 4

**ENVS 431 - Pacific Rim**

Investigation of the geography and issues associated with the growing importance of Pacific Rim nations; selected environmental, sustainability, economic, urban and cultural topics.

**Prerequisites & Notes:** Any one of: ENVS 330 or EGEO 320; ENVS 331 or EGEO 328; ENVS 332 or EGEO 327; ENVS 333 or EGEO 324; EAST 302; or instructor permission.  
Credits: 4

**ENVS 441 - Society, Space, and Natural Resources**

This course explores natural resource valuation and management across a variety of political, economic, and cultural spaces in North America; Emphasis is placed on the interaction of social and natural processes in producing management regimes.

**Prerequisites & Notes:** One (1) of the following: EGEO 311, EGEO 312, EGEO 314, EGEO 320, EGEO 328, ENVS 308, ENVS 330, ENVS 331, ENVS 341, ENVS 342, ENVS 343, ESTU 341, or permission of instructor.  
Credits: 4

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### **ENVS 442 - Regional Environmental and Economic Resource Modeling**

Spatial resource assessment and planning models, including quality of life, shift-share, input-output and linear programming under resource constraints, and demographic projections.

**Prerequisites & Notes:** Any one of: ENVS 201 or ESTU 201; ENVS 361 or ESTU 369; or instructor permission.  
Credits: 4

### **ENVS 443 - The Urban Environment**

Comparative patterns and processes of urban-economic change in the industrial and non-industrial world. Emphasis on urban environmental development issues and conflicts.

**Prerequisites & Notes:** ENVS 204 or EGEO 201; ENVS 343 or EGEO 314.  
Credits: 4

### **ENVS 444 - Colonial Landscapes in the Pacific Northwest**

This course provides description and analysis of the impact of European imperialism on the development of Pacific Northwest landscapes; the focus is on Native, British, American, and Canadian actions and territorial claims.

**Prerequisites & Notes:** One (1) of the following: EGEO 320, EGEO 328, EGEO 327, ENVS 308, ENVS 330, ENVS 331, ENVS 332, ESTU 341, HIST 391 or instructor permission.  
Credits: 4

### **ENVS 450 - United States Environmental Policy**

Analysis and assessment of environmental policy politics, primarily in the United States. Students will examine the actors, institutions, and processes involved in environmental policymaking and develop a solid foundation for understanding how we address our most pressing environmental concerns. The course covers: (1) the major environmental policies and institutions; (2) multiple perspectives that describe and explain the intersections of environmental science and politics; and (3) specific environmental challenges.

**Prerequisites & Notes:** Any one of: ENVS 201 or

ESTU 201; ENVS 202 or ESTU 202; ENVS 203 or EGEO 203; PLSC 250; ENVS 304 or ESTU 304; ENVS 305 or ESTU 305; or instructor permission.  
Credits: 4

### **ENVS 451 - Natural Resource Policy**

Explores issues, politics, and conflicts in the area of natural resource policy, including endangered species, water rights and allocation, forest policy, public lands, and/or wetlands. Offered alternate years.

**Prerequisites & Notes:** ENVS 304 or ESTU 304 or ENVS 450 or ESTU 464 or instructor permission.  
Credits: 3

### **ENVS 452 - International Environmental Policy**

Examines international environmental issues and national and international ways to address these issues, problems affecting the environmental 'commons' (such as oceans and the atmosphere), and issues relating to sustainable development, including aid and trade.

**Prerequisites & Notes:** ENVS 304 or ESTU 304 or permission of instructor.  
Credits: 4

### **ENVS 453 - Public Land Policy**

Overview of public-owned lands (Forest Service, Park Service, Bureau of Land Management, wildlife refuges, wilderness areas) in the United States. Coverage of material includes administrative history, major players, policy changes over time, administration of these lands, and analysis of current events.

**Prerequisites & Notes:** ENVS 304 or ESTU 304 or ENVS 450 or ESTU 464 or instructor permission.  
Credits: 3

### **ENVS 454 - Environmental Policy Analysis**

This course is an introduction to the policymaking process and environmental policy analysis. Topics include: approaches to the study of public policy, policy formulation and adoption, methods for the assessment of environmental policy alternatives, ethics and policy analysis, environmental policy implementation and evaluation, and the utilization of policy analysis in decision-making.

**Prerequisites & Notes:** ENVS 201 or ESTU 201; ENVS 202 or ESTU 202; ENVS 203 or EGEO 203; PLSC 250 or ENVS 304 or ESTU 304 or ENVS 305 or ESTU 305 or instructor permission.

Credits: 5

### **ENVS 455 - Environmental Law**

In-depth analysis of areas of environmental law that help to illustrate the range and complexity of US approaches to environmental problems. Issues include compensation for harm, enforcement, the best way to ensure compliance, and the underlying assumptions about chemicals in society that inform the regulatory system.

**Prerequisites & Notes:** ENVS 304 or ESTU 304 or ENVS 450 or ESTU 464 or ENVS 456 or ESTU 466 or instructor permission.

Credits: 4

### **ENVS 456 - U.S. and Washington State Environmental Regulations**

This course will provide both a survey and applications of major U.S. and Washington state environmental regulations. Students will survey the complex layers of environmental regulation, peel them apart, and then provide a critical narration of those that apply to a major regional environmental issue. The course's dual focus on content and process is accomplished by dividing the class sessions roughly equally between the study of the readings (which is primarily lecture based) and the examination of the case studies and important research in the field of regulation (which is mostly discussion based).

**Prerequisites & Notes:** Any one of: ENVS 201 or ESTU 201; ENVS 202 or ESTU 202; ENVS 203 or EGEO 203; PLSC 250; ENVS 304 or ESTU 304; ENVS 305 or ESTU 305; or instructor permission.

Credits: 5

### **ENVS 457 - Environmental Dispute Resolution**

Course considers several fact patterns involving disputes over natural resources and environmental issues. Students will study and, in some cases, research the facts and will be assigned roles to represent during dispute resolution sessions. Students have the opportunity to practice a range of dispute resolution techniques which may include negotiation, mediation, and other dispute

resolution techniques.

**Prerequisites & Notes:** ENVS 304 or ESTU 304 or ENVS 455 or ESTU 468; or instructor permission.

Credits: 4

### **ENVS 458 - Environmental Politics**

Examination of contending perspectives on environmental problems. Focus on how these perspectives are rooted in political philosophy, their roles in the development of environmental movements, and the implications for public policy. Offered alternate years. Also offered as PLSC 420.

**Prerequisites & Notes:** ENVS 202 or ESTU 202 or ENVS 304 or ESTU 304; PLSC 101 or PLSC 250.

Credits: 5

### **ENVS 461 - Land Use Law**

Land use planning is an attempt to reconcile the conflict between individual property rights and collective environmental goals. This course examines the American legal system's role in framing and resolving this dilemma. It provides an understanding of the legal framework that creates our unique 'bottom up' land use regulatory system. It also examines the practical and philosophical implications of federal constitutional restrictions on local government land use authority, including 'takings' and housing discrimination cases.

**Prerequisites & Notes:** ENVS 304 or ESTU 304; permission of instructor.

Credits: 4

### **ENVS 462 - Planning Theory**

Survey of the philosophy, methods, critical thinking, and analytical techniques used in public planning. Synthesis of the theories drawn from several disciplines and applied to planning. Emphasis on the application of explanatory concepts in planning decision-making.

**Prerequisites & Notes:** ENVS 370 or ENVS 470 or instructor permission.

Credits: 3

### **ENVS 463 - Native American Planning and Natural Resources Policy**

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Survey of political and jurisdictional considerations, treaty rights, and social and environmental conditions facing tribal communities in their pursuit of self-governance and sustainability. Historic federal Indian policy, court rulings and the consideration of off-reservation treaty rights in regional planning. Approaches to intergovernmental cooperation for sustainable natural resources management. Offered alternate years.

**Prerequisites & Notes:** ENVS 304 or ESTU 304 or ENVS 361 or ESTU 369 or instructor permission.  
Credits: 3

### **ENVS 464 - Topics in Planning**

Survey of diverse roles of professional planners in the public and private sector, including multiple levels of government, non-governmental organizations, and specialized private consulting firms; examination of interaction between these professional planning organizations with broader governmental structures; investigation of their involvement with political, social, economic and environmental issues. Includes regular field trips.

**Prerequisites & Notes:** ENVS 361 or ESTU 369  
Credits: 3

### **ENVS 465 - Disaster Risk Reduction**

This course introduces students to the assessment of disasters, focusing primarily on the social aspects of disasters. The course deals with the question 'What causes a disaster?'

**Prerequisites & Notes:** ENVS 362 or ESTU 330; ENVS 372 or EGEO 363; permission of instructor.  
Credits: 4

### **ENVS 466 - Greening Business Applications**

This course is an experiential capstone combining faculty and student teams from the College of Business and Economics and Huxley College of the Environment. Student groups prepare a Green Business Assessment for a community or campus organization and compile, distribute, and present a final report to the campus and the client organizations. Course also offered as MGMT 466.

**Prerequisites & Notes:** Huxley major or CBE major or instructor permission; priority for majors

in Business and Sustainability. Senior status.  
Credits: 5

### **ENVS 470 - Planning Methods**

Processes in community goal making, analytic techniques and methods of site planning and urban design.

**Prerequisites & Notes:** ENVS 360 or ESTU 368, ENVS 361 or ESTU 369 with concurrency.  
Credits: 3

### **ENVS 471 - Campus Sustainability Planning Studio**

Introduction to campus sustainability planning as applied to the WWU campus community. Project-based learning and research involving stakeholders across campus. Selected research topics relative to Western's master planning process pursuit of sustainability. A studio course emphasizing the application of sustainability principles in campus planning, development and operations. Repeatable to a maximum of 9 credits.

**Prerequisites & Notes:** ENVS 304 or ESTU 304 or ENVS 361 or ESTU 369, or equivalent or instructor permission.  
Credits: 3

### **ENVS 472 - Planning Studio**

Analysis and synthesis of significant socioeconomic biophysical and cultural resources used in planning; preparation of a land-use or other plan for a selected region.

**Prerequisites & Notes:** ENVS 470 or ESTU 370  
Credits: 6

### **ENVS 473 - Planning Studio II Implement**

This is a methods and applications course in land use planning, engaging students in plan implementation. The course will focus on innovative land use regulations, but will also include work with capital improvements and market-based strategies. New land use regulations will be designed to enable and facilitate the implementation of projects from Studio I. Students will examine the costs of direct public investment required to implement their plans, and the possibility of employing incentive-based strategies or public-private partnerships.

**Prerequisites & Notes:** ENVS 472 or ESTU 470  
Credits: 3

### **ENVS 474 - Planning for Sustainable Communities**

Synthesis and application of principles, practices and policies in sustainable development and the design of projects, processes, and products using a systems approach to promote social, economic and environmental sustainability. Students apply sustainable design techniques to local regional and international community problems.

**Prerequisites & Notes:** ENVS 361 or ESTU 369; Admission to Sustainable Design minor or Huxley College; and instructor permission.  
Credits: 4

### **ENVS 476 - Disaster Reduction and Emergency Planning Studio**

The course provides students with an opportunity to apply their knowledge and skills in disaster reduction and emergency planning, with an emphasis on community-based approaches. Students will work in groups with a client (or clients) on a quarter-long project of practical significance. Students will be exposed to best practices through case studies across disaster reduction and emergency planning. Project management, client interactions, report writing, and communicating technical information to diverse audiences will be emphasized.

**Prerequisites & Notes:** ENVS 362 or ESTU 330, ENVS 372 or EGEO 363, and ENVS 465 or ESTU 430 or permission of instructor.  
Credits: 4

### **ENVS 481 - History of Conservation in America**

Explores the emergence and significance of the idea of resource conservation in American history. Traces arguments about the nature of nature, and the policy decisions regarding allocation of resources derived therefrom. How did the idea of resource conservation appear in government policy and institutions? Uses case studies of land, wildlife, water and soil conservation, and of resource agencies like the federal National Park Service, Forest Service and their state counterparts.

**Prerequisites & Notes:** ENVS 305 or ESTU 305 or instructor permission  
Credits: 4

### **ENVS 482 - Community-Based Education for Sustainability**

Theory, research and practice of working in an inclusive community context to define, study, and facilitate social-environmental change. Study of participatory techniques and systematic approaches to behavior analysis and change. Requires working in an interdisciplinary group to examine problems and education-based contributions to solutions.

**Prerequisites & Notes:** Environmental Studies or Environmental Science major with completion of Environmental Studies core courses (ESCI 302; ESCI 310; ENVS 201; ENVS 202; ENVS 203; ENVS 303 or ENVS 304; ENVS 305; ENVS 343 or ENVS 361; ESTU 430 or ENVS 472 or ENVS 474 or ENVS 493 or ENVS 496; ENVS 498A or ENVS 498B or ENVS 498C or ENVS 498D) taken within 3 quarters of graduation.  
Credits: 5

### **ENVS 483 - Environmental Interpretation**

An overview of the field of environmental interpretation and how it relates to environmental education. Focus is on gaining an understanding of the basic elements of the interpretive process and on becoming familiar with interpretive approaches and methods. Introduces design and technical components.

Credits: 4

### **ENVS 484 - The American Literature of Nature and Place**

Describes and explores the tradition of writing about the outdoors in American literature. The writings of Thoreau, Burroughs, Muir, Leopold, Carson, Eisley, Borland, Beston and others are read and discussed.

**Prerequisites & Notes:** Junior standing or instructor permission.  
Credits: 4

## ENVIRONMENTAL STUDIES

### **ENVS 485 - Natural History for Environmental Education**

Classroom and field study of the natural history of the Pacific Northwest as it relates to environmental education. A spring block course.

**Prerequisites & Notes:** ENVS 381 or ESTU 371; ENVS 382 or ESTU 372.

Credits: 4

### **ENVS 486 - Field Methods in Environmental Education**

Students visit environmental learning sites and programs where they observe, critique and participate as instructors. Develop skill in designing effective and engaging lesson plans and delivering them to youth audiences. Includes field leadership, environmental interpretation, and instructional evaluation. A spring block course.

**Prerequisites & Notes:** ENVS 381 or ESTU 371; ENVS 382 or ESTU 372.

Credits: 5

### **ENVS 487 - Conservation Psychology**

Principles of psychology applied to environmental problem-solving situations. Relationship between behavior and motivational, cognitive, social, moral-developmental, and cultural-psychological variables across the life span.

**Prerequisites & Notes:** Instructor Permission.  
Credits: 4

### **ENVS 488 - Outdoor Education**

Classroom and field study of outdoor learning methods, as well as new developments and programs such as Outward Bound and adaptations thereof. Includes field experience in various outdoor settings. A spring block course.

**Prerequisites & Notes:** ENVS 381 or ESTU 371; ENVS 382 or ESTU 372.

Credits: 4

### **ENVS 489 - Leadership for a Sustainable Future**

Theory and practice of leadership for inspiring and maintaining change toward more ecologically sustainable behaviors through informal and formal learning settings. Emphasis on experiential

approaches; field work required. A spring block course.

**Prerequisites & Notes:** ENVS 381 or ESTU 371; ENVS 382 or ESTU 372.

Credits: 4

### **ENVS 493 - Environmental Impact Assessment**

Environmental Impact Assessment requires a range of professional qualifications and involves a wide spectrum of disciplines and methodologies. This interdisciplinary capstone course involves class preparation of an impact assessment of a local project, summarizing physical, biological and social aspects of a study area. Review of pertinent laws and EIS documents. Also offered as ESCI 436.

**Prerequisites & Notes:** Senior standing and Huxley College admission, or instructor permission.

Credits: 5

### **ENVS 495 - Teaching Practicum**

Experience in teaching a lecture or laboratory course in environmental studies. Repeatable to a maximum of 4 credits. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College of the Environment and instructor permission.

Credits: 1-3

Grade Mode: S/U

### **ENVS 496 - Environmental Stewardship**

A field-oriented capstone course for environmental studies majors nearing graduation. Students work in interdisciplinary teams to apply their knowledge and skills to solve complex problems in real world situations.

**Prerequisites & Notes:** BIOL 101 or BIOL 204; PLSC 250; ECON 206; MATH 114 or equivalent or higher; CHEM 121; ENVS 201 or ESTU 201; ENVS 202 or ESTU 202; ENVS 203 or EGEO 203; senior standing.

Credits: 5

### **ENVS 498A - Senior Thesis**

A special project carried out under the supervision of a faculty adviser and documented in thesis form according to guidelines supplied by the college.

May reflect a single study topic or be part of a major investigation which may take the form of field work, or laboratory, library or community research. Repeatable to a maximum of 15 credits. Credits: 1-15

**ENVS 498B - Internship**

Supervised work experience relevant to environmental studies and appropriate to the student's program. The one- to three-month experience is documented by a written report prepared according to guidelines supplied by the college. Repeatable to a maximum of 15 credits. S/U grading.

Credits: 1-15  
Grade Mode: S/U

**ENVS 498C - Senior Project**

A special project carried out under supervision of a faculty adviser and documented in non-thesis form suitable to the project. May take the form of some environmental or community activity having either a physical or programmatic result. Repeatable to a maximum of 15 credits. S/U grading.

Credits: 1-15  
Grade Mode: S/U

**ENVS 498D - International Study**

While enrolled as a major in Huxley College, a student who has undertaken a college-level foreign language study may study for one quarter in a country utilizing that language. International study must be approved in advance and carried out under the supervision of the student's adviser, must follow the international study guidelines for the student's major, and relate to the student's course of study at Huxley College. The result of the study must be reported in written, taped, filmed or graphically portrayed form. Repeatable to a maximum of 15 credits. S/U grading.

Credits: 1-15  
Grade Mode: S/U

**ENVS 499A - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic covered. Credits: 1  
Grade Mode: S/U

**ENVS 499B - Spring Block Planning Seminar**

Preparation for Spring Block courses, including understanding the sequence, tasks, partners and expectations for the Spring Block, and forming a functioning group.

**Prerequisites & Notes:** Instructor permission. Credits: 1  
Grade Mode: S/U

**ENVS 499C - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered. Credits: 1  
Grade Mode: S/U

**ENVS 499D - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered. Credits: 1  
Grade Mode: S/U

**ENVS 499E - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered. Credits: 1  
Grade Mode: S/U

**ENVS 499F - Seminar**



## ENVIRONMENTAL STUDIES

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.  
Credits: 2  
Grade Mode: S/U

### **ENVS 499G - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.  
Credits: 2  
Grade Mode: S/U

### **ENVS 499H - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credits with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites vary depending on topics offered.  
Credits: 2  
Grade Mode: S/U

### **ENVS 499I - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College of instructor permission. Additional prerequisites will vary depending on topic offered.  
Credits: 2  
Grade Mode: S/U

### **ENVS 499J - Seminar**

Students-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

Credits: 2  
Grade Mode: S/U

### **ENVS 499K - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.  
Credits: 2  
Grade Mode: S/U

### **ENVS 499L - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.  
Credits: 2  
Grade Mode: S/U

### **ENVS 499M - Seminar**

Student-faculty interaction on topics of general interest.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.  
Credits: 2  
Grade Mode: S/U

### **ENVS 499N - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.  
Credits: 1

### **ENVS 499O - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.

Credits: 1

**ENVS 499P - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.  
Credits: 1

**ENVS 499Q - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.  
Credits: 1

**ENVS 499R - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.  
Credits: 1

**ENVS 499S - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.  
Credits: 2

**ENVS 499T - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.  
Credits: 2

**ENVS 499U - L.E.A.D. Seminar**

Practicum in environmental education. Create and deliver classroom and outdoor environmental education curriculum with local school class.

**Prerequisites & Notes:** Instructor permission.  
Credits: 2

**ENVS 499V - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.  
Credits: 2

**ENVS 499W - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.  
Credits: 2

**ENVS 499X - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.  
Credits: 2

**ENVS 499Y - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.  
Credits: 2

**ENVS 499Z - Seminar**

Student-faculty interaction on topics of general interest. Repeatable for credit with no maximum.

**Prerequisites & Notes:** Admission to Huxley College or instructor permission. Additional prerequisites will vary depending on topic offered.  
Credits: 2

**ESTU 524 - Environmental Politics and Policy**

Survey of the field of environmental politics and policy. Examination of how political scientists have

## ENVIRONMENTAL STUDIES

addressed environmental issues by focusing on questions raised, methods used and conclusions reached. Approach will be comparative in examining research on different countries. Also offered as PLSC 524.

Credits: 5

### **ESTU 536 - Environmental Impact Assessment Practicum**

Preparation of an objective assessment description of a real natural area including the search for public documentation, evaluation of coverage and specific new analyses. Coordinating role in task group data assembly and editorial review of draft project summaries. Experience directly related to professional responsibilities in the environmental field. Review of assessment utilization in the EIS format and of significant legislation.

**Prerequisites & Notes:** Graduate status.  
Credits: 4

### **ESTU 553 - American Environmental History**

Readings seminar focusing on the literature on the history of the interaction of nature and society in America. Concentration on methods in environmental history. Also offered as HIST 553.

**Prerequisites & Notes:** Graduate status.  
Credits: 4

### **ESTU 554 - World Environmental History**

The organizing theme of this seminar will be that of 'exchange' - biological and cultural - of organisms and ideas about what to do with them. By focusing on the problem of the history of exchanges of organisms and ideas about the environment around the globe, the seminar will at the same time illuminate other themes in world environment history. Also offered as HIST 554.

Credits: 5

### **ESTU 571 - Environmental Education Foundations**

Examination of the principles and processes of education about and for the environment. Review of theory and practice of environmental education in a variety of programmatic settings.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
Credits: 4

### **ESTU 572 - Introduction to Place-Based Environmental Education**

Explores ways to teach about a place in the context of environmental education. Includes examination of fundamental concepts and skills of environmental education and review of the subject matters which are the content of place-based environmental education curricula. These include natural history and its interpretation and the cultural and social history of a place and its interpretation. Students will examine methods of acquiring knowledge comprising this subject matter.

**Prerequisites & Notes:** Admission to MEd natural science/science education, environmental studies residency option or other master's program in environmental education.  
Credits: 4

### **ESTU 573 - Resource Issues in the North Cascades**

Using the North Cascades region as a microcosm, the course explores the major natural resource issues of the region, the values and goals of stakeholders in those issues, and mandates, histories, and values of the public agencies that deal with those issues. Emphasis on how environmental educators may present such issues to students at various developmental stages.

**Prerequisites & Notes:** admission to environmental education master's program  
Credits: 4

### **ESTU 574 - Cultural Studies of the North Cascades**

Examines the cultural history of the North Cascades region from the earliest aboriginal habitation to the present. Studies human impact on the region and various cultural orientations to it. Explores how cultural studies and interpretation of a landscape can be transferred to other landscapes, and how cultural studies may be incorporated into environmental education programs focusing on a place.

**Prerequisites & Notes:** ESTU 572, ESTU 573  
Credits: 4

**ESTU 575 - Assessment, Evaluation and Research in Environmental Education**

Critical review and analysis of approaches to research, evaluation and assessment in environmental education. Application of research approaches, designs and methods in practical settings.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
Credits: 4

**ESTU 576 - Natural History and Science of the North Cascades**

Studies the natural history of the North Cascades to understand the basic ecological, hydrological, and geological principles operating there. Explores diverse processes of scientific inquiry that have been applied to study the landscape. Includes examination of how natural history and scientific inquiry into natural processes may be incorporated into interdisciplinary environmental education programs.

**Prerequisites & Notes:** ESTU 572, ESTU 573  
Credits: 4

**ESTU 577 - Nonprofit Administration for Environmental Educators**

Examines the nature and qualities of nonprofit educational organizations and of models of nonprofit administration. Leadership, management, and partnership principles and strategies will be studied. Topics include all aspects of running an educational nonprofit organization, including financial management, fund raising, and organizational development and evaluation. Working with the public and private sector partners will be explored.

**Prerequisites & Notes:** ESTU 572, ESTU 573  
Credits: 4

**ESTU 578 - Practicum in Teaching Natural and Cultural History**

Supervised field experience in teaching about natural and cultural history in an environmental learning center setting.

**Prerequisites & Notes:** ESTU 572, ESTU 573, ESTU 574, ESTU 575, ESTU 576, ESTU 577; SCED 513  
Credits: 4

**ESTU 581 - Professional Writing and Presentation**

Capstone course for students completing master's work in environmental education. Reflection on program; writing and presentation of research and curriculum projects during the course of the master's program.

**Prerequisites & Notes:** ESTU 572-577, ESTU 587-589, instructor permission  
Credits: 5

**ESTU 587 - Conservation Psychology**

Critical examination of the psychological and educational research bases for environmental education. Introduction to research methods used to integrate environmental behavior change, learning about the environment, development of environmental responsibility, and formation of ecological ethics, across the lifespan. Course employs lecture, discussion, student presentation, and research practica.

**Prerequisites & Notes:** Enrollment in MEd in environmental education or permission of instructor.  
Credits: 4

**ESTU 588 - Language, Discourse and Environment**

This course focuses on the relationship between the metaphorical nature of language and discourse, with an end to better understand different views of the natural environment.

Credits: 4

**ESTU 589 - Curriculum in Environmental Education**

Examination of all aspects of curriculum for environmental education, especially in the non-formal setting of environmental learning centers, nature centers and outdoor schools. Curriculum theory and methodology appropriate to these settings will be studied, as will processes of curriculum design. Current programs and materials

## ENVIRONMENTAL STUDIES

will be reviewed. Students will practice the skills of preparing curriculum and learning materials.

Credits: 5

### **ESTU 595 - Teaching Practicum**

Experience in teaching a lecture or laboratory course in environmental studies. S/U grading.

**Prerequisites & Notes:** relevant course work, instructor permission

Credits: 1-3

Grade Mode: S/U

### **ESTU 598 - Research Project**

Research in the field of environmental education for students pursuing the non-thesis option of the M.Ed. natural science/science education program (environmental education specialization).

**Prerequisites & Notes:** completion of 15 credits 500-level toward MEd in natural science/science education

Credits: 6

### **ESTU 599 - Graduate Environmental Studies Seminar**

Selected topics across the spectrum of environmental studies (e.g., toxicology, watershed studies, applied ecology, geography, environmental education, etc.). Repeatable to a maximum of 6 cr. S/U grading.

**Prerequisites & Notes:** Graduate status.

Credits: 1-2

Grade Mode: S/U

### **ESTU 690 - Thesis Research**

Thesis research in environmental studies under faculty direction. Repeatable to a maximum of 12 credits. S/U grading.

**Prerequisites & Notes:** Permission of the thesis advisory committee

Credits: 1-12

Grade Mode: S/U

### **ESTU 691 - Field Project**

Development of an educational program, preparation of curriculum or production of educational materials. May be done off campus

between periods of residence work. Repeatable to a maximum of 12 credits. S/U grading.

**Prerequisites & Notes:** Completion of 15 credits at the 500 level and approval of student's committee in the MEd in Environmental Education Program.

Credits: 1-12

Grade Mode: S/U

## Geography Courses

### **EGEO 501 - History and Philosophy of Geography**

Study of geography as a core discipline; its origins and trends in the understanding of multifaceted environmental problems.

Credits: 3

### **EGEO 502 - Geographic Frameworks for Resource Analysis**

Examination of the geographic theories and analytical frameworks used in the study of the environment.

**Prerequisites & Notes:** EGEO 501

Credits: 4

### **EGEO 503 - Research Problems**

Formulation and development of hypotheses for a thesis, and the development of the necessary methodology; preparation of bibliography and review of literature.

**Prerequisites & Notes:** EGEO 501, EGEO 502

Credits: 4

### **EGEO 504 - Geographic Methods and Techniques**

Advanced methods of gathering and analyzing data and information for the solution of geographic, regional planning, and landscape problems.

**Prerequisites & Notes:** EGEO 305 or equivalent, EGEO 501, EGEO 502

Credits: 5

### **EGEO 533 - Climate and Biophysical Processes**

Investigation into the role and nature of biophysical processes and their significance to the spatial and temporal patterns at various scales. Topics examine the functional relationships between climate, soils, landforms and vegetation.

**Prerequisites & Notes:** Graduate status.  
Credits: 4

**EGEO 535 - Environmental Problems and Regional Development**

Cities and regions as complex systems of interdependent natural and human elements; key problems and approaches to their solution through planning.

**Prerequisites & Notes:** 5 credits graduate-level  
Credits: 5

**EGEO 551 - Research Problems**

Formulation and development of hypotheses for a thesis. Development of the necessary methodology; preparation of bibliography and review of literature.

Credits: 4

**EGEO 552 - Advanced GIS**

Analysis and application of cartographic techniques and geographic information systems to practical mapping and resource management projects.

**Prerequisites & Notes:** instructor permission  
Credits: 4

**EGEO 590 - Graduate Colloquium**

Current trends and issues in geographic research.

Credits: 1

**EGEO 595 - Teaching Practicum**

Experience in teaching a lecture or laboratory course in geography. Repeatable. S/U grading.

**Prerequisites & Notes:** Graduate status, relevant course work and permission of instructor.  
Credits: 1-3  
Grade Mode: S/U

**EGEO 690 - Thesis**

Thesis research in geography under faculty direction. Repeatable up to 36 credits. S/U grading.

**Prerequisites & Notes:** Advancement to candidacy for the master's degree and appointment of thesis advisor and thesis committee.  
Credits: 1-12  
Grade Mode: S/U

# Woodring College of Education

## Introduction

*Dr. Francisco Rios, Dean*

*Mission and Vision Statement of the College*

**Mission:** *The Woodring College of Education mission statement provides context and purpose for our actions. Woodring College of Education facilitates learning that prepares and advances quality educators and human services professionals throughout their careers. As academic leaders, educators, mentors, and scholars, we seek to:*

- Model best practices in teaching and learning which, in turn, lead graduates to use best practices in their professions
- Cultivate student competence through extensive field experiences with exemplary practicing professionals
- Construct, transform, and convey knowledge by integrating research, theory, and practice
- Act with respect for individual differences
- Develop collaborative partnerships that promote the learning and well-being of individuals, families and the community
- Evaluate processes and outcomes to assure continual program improvements

**Vision:** *The vision of Woodring College of Education frames our future.*

Woodring College of Education fosters community relationships and a culture of learning that advances knowledge, embraces diversity and promotes social justice.

*Accreditation and Program Approval*

Professional educator preparation programs in the Woodring College of Education are accredited by the National Council of Accreditation of Teacher Education, and approved by the Washington State Professional Educator Standards Board. The Rehabilitation Counseling program is accredited by the Council on Rehabilitation in Education. The RN to BSN program will be approved by the Washington Nursing Care Quality Assurance Commission by late summer 2013 for a fall 2013 start. The College will then pursue national accreditation through the Commission on Collegiate Nursing Education. All Woodring programs are designed to prepare graduates to be *thoughtful, knowledgeable, and effective educators or professionals for a diverse society.*

## Academic Programs Leading to Undergraduate and Graduate Degrees

Elementary Education	BAE, MEd
Secondary Education	MIT
<i>(For information regarding academic majors and endorsements for elementary and secondary education, see departmental listings)</i>	
Special Education	BAE, MEd
Education Administration	MEd
<i>(Principal and Superintendent administrator certificate programs offered)</i>	
Human Services	BA
Nursing	BSN
Rehabilitation Counseling	MA
Continuing and College Education	MEd

## Overview: Departments and Programs

### Department of Elementary Education

Dr. David Carroll, Chair

*Programs Offered*

- Elementary Education/Certification
- Language, Literacy, and Cultural Studies Major
- Early Childhood Education/Non-Certification Option
- Early Childhood Education (P-3)/Certification
- Early Childhood Education (P-3) and Elementary Education/Certification Option
- Bilingual Education Endorsement
- Bilingual Education Minor
- English Language Learners Endorsement
- Reading (P-12) Endorsement
- Teaching English to Speakers of Other Languages
- Teaching English to Speakers of Other Languages Minor
- Literacy - Master's

**Department of Secondary Education**

Dr. Bruce Larson, Chair

*Programs Offered*

- Secondary Education/Certification — Undergraduate/Post-baccalaureate
- Secondary Education/Certification — Master's
- Middle Level — Humanities Endorsement
- Education and Social Justice Minor

**Department of Special Education & Education Leadership**

Dr. Gail Coulter, Chair

*Programs Offered*

- Early Childhood Special Education (P-3)/Certification
- Special Education (P-12) with Elementary Education/ Certification
- Special Education (P-12) with Secondary Education/ Certification
- Special Education (P-12)/Certification
- Special Education - Master's (in moratorium)
- Educational Administration
  - Master's
  - Residency Principal Certification
  - Professional Administrator Certification (in moratorium)
  - Initial Superintendent Certification

**Teacher Education Outreach Programs**

Dr. Laurence Antil, Assistant Dean for Outreach Programs

*Programs Offered*

- Elementary Education/Certification with Special Education (P-12) Major
- Elementary Education/Certification - Post-baccalaureate
- Special Education (P-12) Endorsement for Teachers
- Elementary Education Endorsement for Teachers

**Department of Human Services and Rehabilitation**

Dr. Elizabeth Boland, Chair

*Programs Offered*

- Continuing and College Education
- Human Services
- Nursing: RN to BSN



- Rehabilitation Counseling

## Other College Information

### *Educator Certification Requirements*

Teacher certification requirements are outlined in the Elementary Education, Secondary Education, Special Education and Teacher Education Outreach Programs sections of this catalog. Administrator certification requirements are outlined in the Graduate School section of this catalog. See the Certification & Accreditation Office for details: <http://www.wce.wvu.edu/Resources/Certification/>.

### **Reasonable Accommodation Policy**

It is the policy of Western Washington University to provide reasonable accommodation to the known physical or mental limitations of otherwise qualified individuals except where such accommodation would impose undue hardship on the institution. Students with documented disabilities who are enrolled at the University and seek reasonable accommodation should contact Disability Resources for Students for assistance and advice.

Students with disabilities who are covered under this policy include those who, with or without auxiliary aids or removal of barriers, can meet the essential eligibility requirements of the program.

### **Administrative Services**

- Dr. Karen McLean Dade, Associate Dean
- Dr. Laurence Antil, Assistant Dean for Outreach Programs
- Dana Edward, Director, Certification and Accreditation
- Dr. Jennifer McCleery, Director, Teacher Education Admissions and Field Experiences
- Center for Education, Equity, and Diversity
- Ershig Assistive Technology Resource Center
- Northwest Center for Holocaust, Genocide and Ethnocide Education
- Pacific Northwest Children's Literature Clearinghouse
- Service Learning Programs

## Graduate Programs in Education

The Woodring College of Education offers various master's degrees. For a complete description of these programs, see the *Graduate School* section of this catalog.

### *EDUC Courses*

Education (EDUC) courses are offered through the Woodring College of Education as classes for the preparation of teachers, and for the advanced professional development of educators as continuing education or as requirements for the MEd degree. Go to information on EDUC courses.

# Education

Education (EDUC) courses are offered through the Woodring College of Education as classes for students exploring careers in education, the preparation of teachers, and for the advanced professional development of educators as continuing education or as requirements for the MEd degree.

## Education Courses

### **EDUC 108 - Purposeful Learning**

Seminar course designed for enhancing student understanding and application of the meta-cognitive process of lifelong learning.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 2

### **EDUC 109 - Scholarship of Teaching and Learning**

Survey of concepts foundational to effective teaching and learning from history, sociology, psychology, political science, communication arts and law. Explores the interdependent and synergistic relationship between various academic disciplines and the scholarship of teaching and learning.

Credits: 4  
GUR Attributes: SSC

### **EDUC 110 - Future Scholars Seminar**

This course uses readings, videos, guest presentations, field observations and extra-curricular activities to more fully familiarize first quarter freshmen designated as Future Woodring Scholars with academic and student support programs, and to explore career opportunities in the fields of teaching and human services.

**Prerequisites & Notes:** Appointment by Dean of WCE as a Future Woodring Scholar.  
Credits: 2

### **EDUC 115 - Introduction to Contemporary Education Issues**

Introduction to contemporary social, political, and policy issues in education and related fields. Exploration of education-related careers and career pathways. Independent field study or service-learning fieldwork required.

**Prerequisites & Notes:** Acceptance as a Woodring Future Scholar or permission of instructor.

Credits: 4  
GUR Attributes: SSC

### **EDUC 201 - Compass 2 Campus: Youth Mentoring I**

Introduction to service-learning mentoring through a campus wide mentoring initiative designed to encourage under-represented, low-income, first generation, and diverse 5th -12th grade students to graduate from high school and consider post-secondary education.

Credits: 3

### **EDUC 202 - Compass 2 Campus: Youth Mentoring II**

Service learning through a campus wide mentoring initiative designed to encourage under-represented, low-income, first generation, and diverse 5th -12th grade students to graduate from high school and consider post-secondary education. Second in series. Repeatable up to 12 credits.

**Prerequisites & Notes:** EDUC 201 or EDUC 297A.  
Credits: 3

### **EDUC 309 - Storytelling: Oral Narrative in History, Culture, and Society**

Current trends and interdisciplinary applications of storytelling. Selection, adaptation and presentation of stories for various settings and audiences, with focus on the history of oral narrative traditions, cultural perspectives, and societal impact.

Credits: 4  
GUR Attributes: BCOM

## EDUCATION

### **EDUC 320 - Reader's Theatre in the Classroom**

Adaptation of fiction and nonfiction into script form for K-12 classroom. Emphasis on teaching creative writing, literature appreciation, teamwork and oral skills development.

**Prerequisites & Notes:** LIBR 405 or ENG 441 recommended  
Credits: 4

### **EDUC 409 - Advanced Storytelling**

Training in public storytelling performance in community and educational settings. Emphasizes personal performance development, practical public experience, storytelling teaching methods, and advanced study of the history and current trends in the growing field of storytelling.

**Prerequisites & Notes:** EDUC 309 or permission of instructor.  
Credits: 3

### **EDUC 411 - Education and Social Justice**

Theoretical and practical foundation of education for social justice, exploring historical roots and the contemporary constructions of social justice issues and traditions as they play out in diverse educational contexts with emphasis on disruption of cultural reproduction of oppression through agency and activism.

**Prerequisites & Notes:** Declaration of Education and Social Justice minor or permission of instructor.  
Credits: 4

### **EDUC 412 - Seminar in Educational Equity**

This course has been designed to develop a critical understanding of current issues of educational equity and social justice within the U.S. context. Through research based discussions and participation in symposia, workshops, seminars, and film viewings students will engage and grapple with their own development of critical consciousness and the implications for educators. Also offered as AMST 412.

**Prerequisites & Notes:** Junior standing or permission of instructor. Preference to students in the Education and Social Justice Minor.

Credits: 4

### **EDUC 413 - Bridge Barriers w/Migrants**

Course explores the barriers migrant students face in graduating from high school and going on to higher education. Course combines theoretical study with a service learning experience focused on supporting migrant youth to overcome the educational challenges they face. All students will take leadership roles in planning, implementing, and evaluating the effectiveness of the Migrant Youth Leadership Conference and outreach efforts with Migrant partner programs. Repeatable up to 8 credits, including original course. Also offered as AMST 413.

**Prerequisites & Notes:** Declaration of Education and Social Justice Minor or permission of instructor.  
Credits: 4

### **EDUC 414 - Topics in Social Justice Education**

Specific issues in social justice education will be used as lenses for analyzing, evaluating and transforming interlocking systems of power, privilege, oppression and discriminatory institutional structures and cultural practices and social behavior. Also offered as FAIR 414D.

**Prerequisites & Notes:** AMST 301; EDUC 411; and FAIR 375I  
Credits: 4

### **EDUC 450 - Teacher Assistance Program**

Focuses on induction for first and second-year teachers on to the profession and supports professional practice known to support student learning. Repeatable to a maximum of 4 credits. S/U grading.

**Prerequisites & Notes:** Contracted first or second-year teacher.  
Credits: 2  
Grade Mode: S/U

### **EDUC 451 - Professional Certification Pre-Assessment Seminar**

Candidates form a Professional Growth Team and develop a Professional Growth Plan in accordance with state guidelines. Through seminar discussion and alignment of professional practice with the

researched knowledge base of the profession. S/U grading.

**Prerequisites & Notes:** Admission to the Professional Certification Program.

Credits: 3

Grade Mode: S/U

#### **EDUC 452 - Professional Certification Core**

Development of portfolio evidence aligned with Professional Certification Standards and Criteria. Selection of elective credit courses/workshops that further professional development toward goals written in the prerequisite seminar. S/U grading.

**Prerequisites & Notes:** Satisfactory completion of EDUC 451 and formal admission to the Professional Certification program.

Credits: 3

Grade Mode: S/U

#### **EDUC 453 - Professional Certification Linking Class**

Create an organized and 'at standard' portfolio of evidence to meet Professional Certification standards. S/U grading. Repeatable to a maximum of 3 credits. S/U grading.

**Prerequisites & Notes:** Permission of instructor.

Credits: 1

Grade Mode: S/U

#### **EDUC 454 - Culminating Seminar**

Final course in the Professional Certificate sequence. Candidates discuss and present evidence of continuous student performance progress monitoring strategies. Formal presentation of professional development activities related to the goals written earlier in the program and identification of next professional development plans. S/U grading.

**Prerequisites & Notes:** Successful completion of the Pre-Assessment and Core components in the Professional Certification Program.

Credits: 2

Grade Mode: S/U

#### **EDUC 455 - Effective Teaching Module IV**

Candidates complete program outcomes by submitting 'at standard' performance indicators

that are embedded in instructional and classroom management plans. Creation of an annotated bibliography of research-based effective teaching strategies, facilitated student use of technology and complete a draft of a Professional Growth Plan. S/U grading.

**Prerequisites & Notes:** Alternate Certificate Modules I, II, III

Credits: 3

Grade Mode: S/U

#### **EDUC 456 - Alternate Route Internship**

A mentored teaching experience to develop and demonstrate the knowledge and skills learned in the accompanying EDUC 455 course. S/U grading.

**Prerequisites & Notes:** Concurrent enrollment in EDUC 455.

Credits: 3

Grade Mode: S/U

#### **EDUC 457 - National Board Preparation, Part I**

Development of the first National Board entry focused on professional accomplishments and outreach to families and community. Participation in cohort group discussions and group evaluation of entry drafts. S/U grading.

**Prerequisites & Notes:** Candidacy for National Board Certification

Credits: 3

Grade Mode: S/U

#### **EDUC 458 - National Board Preparation, Part II**

Candidates participate in discussions of 'at standard' performance, timelines and differences between analytic, reflective and descriptive writing. Submission of all entries to the National Board and completion of Assessment Center tests in a certificate area by a nationally established deadline. S/U grading.

**Prerequisites & Notes:** Candidacy for National Board Certification

Credits: 3

Grade Mode: S/U

#### **EDUC 459 - Professional Certification Advanced Track**

## EDUCATION

Advanced Track Candidates for Professional Teacher Certification will complete Pre-Assessment requirements and present work sample evidence to verify that all Professional Certificate Standards have been met. Candidates who successfully present portfolio evidence will be affirmed as having met Professional Certificate requirements. Candidates without complete portfolio will complete Core and Culminating Seminar requirements. S/U grading.

**Prerequisites & Notes:** admission to Professional Certification Program, teaching certificate from non-Washington state and 5 years teaching experience before entering Washington  
Credits: 4  
Grade Mode: S/U

### **EDUC 460 - Portfolio Development**

This is a standards-based program. Candidates will prepare a portfolio of evidence in alignment with Washington State's ProTeach Portfolio assessment process based on Professional Certificate Standards and Criteria. A successful portfolio is a requirement in order to transition from a temporary Residency Certificate to a permanent Professional Certificate. A Professional Certificate or National Board Certification is a requirement for continuing employment in the public school system. Repeatable up to a maximum of 8 credits. S/U grading.

**Prerequisites & Notes:** Enrollment in the Professional Certificate Support Program.  
Credits: 2  
Grade Mode: S/U

### **EDUC 501 - Introduction to Educational Research**

Introduction to the concepts and procedures of contemporary education research. Locating and interpreting research literature; formulating research problems and hypotheses. Selecting research designs, including quantitative and qualitative approaches. Use of correlational, causal comparative, quasi-experimental, experimental, single subject, descriptive, case study, and various qualitative methodologies.

**Prerequisites & Notes:** Graduate status or permission of instructor; must take within first 12-

16 credit hours under advisement.  
Credits: 4

### **EDUC 505 - Creating Classrooms for Learning**

Advanced studies in culturally responsive curriculum, instruction and assessment.

**Prerequisites & Notes:** EDUC 501.  
Credits: 4

### **EDUC 534 - Assessing Educational Quality**

Developing criteria and designing procedures for measuring input process and product resulting from special or innovative programs, community factors, options in administrative and instructional organization; for coordinators and research workers in the public schools.

**Prerequisites & Notes:** EDUC 501 or permission of instructor.  
Credits: 3

### **EDUC 690 - Thesis**

Research study under the direction of a faculty committee. Repeatable to a maximum of 5 credits. S/U grading.

**Prerequisites & Notes:** Advancement to candidacy and approval of the student's committee.  
Credits: 1-5  
Grade Mode: S/U

### **EDUC 691 - Research Seminar and Inquiry Project**

Research study under the direction of a faculty committee. Repeatable to a maximum of 5 credits. S/U grading.

**Prerequisites & Notes:** Advancement to candidacy and approval of the student's graduate committee.  
Credits: 1-5  
Grade Mode: S/U

# Elementary Education

## Introduction

The Department of Elementary Education offers professional education programs that lead to recommendation to the Office of the Superintendent of Public Instruction for residency teacher certification in the state of Washington. Students are encouraged to visit the departmental offices in Miller Hall 301 for information on program offerings that meet their individual needs.

The programs in elementary education are designed to *prepare thoughtful, knowledgeable, and effective educators for a diverse society*. Consistent with national and state standards for what teachers should know and be able to do, the elementary education curriculum offers carefully sequenced professional programs that are firmly backed by current research on effective teaching and learning.

### Information

Individuals interested in teacher education can obtain information from the Website at [www.wce.wwu.edu/Admiss](http://www.wce.wwu.edu/Admiss). Inquiries should be directed to Woodring College Teacher Education Admissions, Student Services, Miller Hall 150, phone 360-650-3313, e-mail address [TeacherEdAdmissions@wwu.edu](mailto:TeacherEdAdmissions@wwu.edu). Written inquiries may be addressed to Teacher Education Admissions, Western Washington University, MS-9090, 516 High St., Bellingham, WA 98225-9090.

Information about elementary education programs may be obtained by visiting the department Website at [www.wce.wwu.edu/Depts/ELED](http://www.wce.wwu.edu/Depts/ELED). Applicants who wish to speak with a faculty advisor may request an appointment through the elementary education department office in Miller Hall 301D, phone 360-650-3336, e-mail address [Ellen.Kreider@wwu.edu](mailto:Ellen.Kreider@wwu.edu).

Those persons interested in graduate programs should consult the Graduate School section of this catalog or contact the Graduate School directly, phone 360-650-3170, e-mail [gradschl@wwu.edu](mailto:gradschl@wwu.edu). Written inquiries may be addressed to the Graduate School, Old Main 530, MS-9037, Western Washington University, 516 High St., Bellingham, WA 98225-9037.

## Faculty

**DAVID CARROLL** (2001) Chair and Professor. BA, Antioch College; MA, Leslie College; PhD, Michigan State University.

**JOANNE CARNEY** (2003) Professor. BA, MA, Gannon University; PhD, University of Washington.

**CARMEN LUCIA AVILA CERVERA** (2008) Instructor. BA Instituto Michoacano de Ciencias de la Educacion, Morelia, Mexico; MS Western Washington University.

**MARILYN CHU** (2008) Associate Professor. BA, University of Michigan- Ann Arbor; MA, Western Washington University; EdD, Nova Southeastern University, Florida.

**TRACY COSKIE** (2003) Professor. BA, University of Rochester; MEd, PhD, University of Washington.

**PAULA DAGNON** (2007) Associate Professor. BA, Whitman College; MA, University of Connecticut, Storrs; PhD, University of Connecticut, Storrs.

**MARIA TIMMONS FLORES** (2008) Associate Professor. MED, Western Washington University; PhD, University of Colorado Boulder.

**KRISTEN FRENCH** (2007) Associate Professor, BA, Western Washington University; MA, University of Massachusetts-Amherst; EdD, University of Massachusetts-Amherst.

**JENNIFER GREEN** (2012) Assistant Professor, BA, Gustavus Adolphus College, MAT; MAT, School for International Training; PhD, University of Connecticut.

**KAREN J. HOELSCHER** (1992) Professor. BS, Bemidji State University; MS, Mankato State University; EdD, Harvard University.

**EILEEN HUGHES** (2005) Associate Professor. BS, Whittier College; MS, University of Wisconsin, Madison; PhD, University of Oregon.

**MITCHELL JANCIC** (2006) Senior Instructor. MA, California State University; PhD, University of California-

## ELEMENTARY EDUCATION

Santa Barbara.

**DIANE MAJORS** (1994) Senior Instructor. MA, University of Oregon.

**MATTHEW MILLER** (2005) Associate Professor. BA, St. Olaf College; MA, University of Arizona; MEd, University of Minnesota; PhD, University of Washington.

**CHRIS OHANA** (1999) Associate Professor. BA, University of California-Berkeley; MA, University of Oregon; PhD, Iowa State University.

**MARSHA RIDDLE BULY** (1999) Professor. BA, Western Washington University; MA, California State University; PhD, University of Washington.

**PATRICIA SKILLMAN** (1988) Senior Instructor. Director TESOL Program. BA, Stanford University; MED, Western Washington University.

**KATHRYN WAYNE** (1992) Associate Professor. BA University of Oregon; PhD, University of Oregon, Stanford.

### Elementary Education Programs

The Department of Elementary Education offers the following programs:

- **Elementary Education (Undergraduate and Post-Baccalaureate)** – This program leads to a recommendation to the state of Washington for a teaching certificate with an Elementary Education endorsement. Requirements include completion of the Elementary Education Professional Program, a major in an approved area, and a one-year internship experience that includes one quarter of full-time teaching.
- **Language, Literacy, and Cultural Studies Major** – This departmental major is one of 17 approved academic majors that students may choose from to accompany the Elementary Education Professional Program.
- **Reading Endorsement** – The Reading Endorsement is offered for students who wish to have the opportunity to further their knowledge and skills for literacy instruction. Students will deepen their knowledge of language and literacy learning, while building their capacity to help all students achieve as readers, writers, and language users.
- **Bilingual Education Endorsement** – This program leads to an additional endorsement in Bilingual Education when accompanied by a professional teacher education program and a first endorsement in another content area. Also required is a cultural studies course taught in the language of that culture or demonstration of equivalent experience. Expected proficiency is equivalent to a major in the language other than English, and oral and written proficiency at the ACTFL mid-advanced level. Each required course must be completed with a grade of B- (2.7) or better. A passing score on the Bilingual Education WEST-E and an assessment in the non-English language of instruction is required by the state.
- **English Language Learner Endorsement** - This program leads to an additional endorsement in English Language Learners based on Washington state English Language Learners endorsement competencies, when accompanied by a professional teacher education program and a first endorsement in another content area. Students must demonstrate study of another culture (gained through experience, or the minimum of 3 credits of approved course work) and the equivalent of one year of college-level foreign language study. A passing score on the ELL WEST-E is required by the state.
- **Early Childhood Education (Undergraduate)** — The Early Childhood Education Program offers three options to students. All options are for candidates seeking a profession in early childhood education and specialization in working with young children and their families. The Non-certification option is designed for individuals who want to work in positions specific to the birth to eight years age-range in childcare, HeadStart or with school-age children in after-school programs. The P-3 option is designed for students wanting to specialize in early childhood education (birth through third grade) and seek a teaching endorsement to work in the public schools. The Dual Endorsement option is for candidates who seek two teaching endorsements to work in the public schools (P-3rd and Elementary Grades).

- **Bilingual Education Minor** – Undergraduates may complete a 33-credit minor in Bilingual Education. To declare the Bilingual Education minor, students must complete a cultural studies course taught in the language of that culture, or demonstrate the equivalent in experience. Students must also be recommended by the department of Modern and Classical Languages prior to enrolling in the seminar and practicum in Bilingual Education or declaring the minor. Students must complete the minor with a minimum GPA of 2.7 in minor course work.
- **Teaching English to Speakers of Other Languages Minor** – The TESOL minor is available to undergraduate students in the TESOL certificate program with a focus on adult learners. Students earning an ELL and/or Bilingual Education endorsement may choose to complete either 27-credit TESOL minor with a focus on P-12 learners or the 33-credit Bilingual Education minor, but not both. To declare the TESOL minor, students must demonstrate study of another culture (gained through experience, or the minimum of 3 credits of approved course work) and the equivalent of one year of college-level foreign language study.
- **Teaching English to Speakers of Other Languages Certificate** – The TESOL Program focuses on preparing participants to work with English language learners to develop their English language skills. Works is most often in international language schools, community language school settings for new or recent immigrants, and community college ESL classes. Completion of the 27-credit sequence of courses results in a certificate of achievement.

The Department of Special Education and Education Leadership offers the following integrated dual endorsement program:

- **Special Education and Elementary Education** – This program leads to a recommendation to the state of Washington for a teaching certificate endorsed in Special Education and Elementary Education. Requirements include completion of the professional studies core, major in special education, and elementary program curriculum and methods, and two internships, each one quarter in length. See the Special Education section of this catalog for further information.

The No Child Left Behind (NCLB) “highly qualified teacher” requirement may impact eligibility for certain middle school teaching assignments in a core academic subject(s). Students are responsible for consulting with an advisor for further information on NCLB.

## Certification

The Washington Administrative Code specifies the requirements for earning a Washington state teacher certificate. State-approved preparation programs and certification requirements align with state learning goals and essential academic learning requirements, and require candidates to demonstrate that they have made a positive impact on student learning. First-level residency certification programs are designed around the standards of effective teaching, professional development, and teaching as a profession. Second-level professional certification requirements are designed around the standards of effective teaching, professional development, and professional contributions.

**State requirements for teacher certification at the time of completion of a student’s program will supersede those outlined in this catalog.** These changes may affect the time it takes for a student to complete the teacher education program.

### *Residency Teacher Certification*

The first-level residency certificate is awarded to new teachers upon the completion of these general requirements:

- A baccalaureate or higher-level degree from a regionally accredited college or university
- A state-approved, performance-based teacher preparation program that includes preparation in an endorsable subject area, teaching methodology, and an internship
- Evidence of good moral character and personal fitness

Candidates for residency certification must pass a subject knowledge assessment, the Washington Educator Skills Test — Endorsements (WEST-E), to receive an endorsement for certification. WWU requires submission of a passing WEST-E score for each endorsement to be earned, before commencement of the student teaching



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internship. For current information on test requirements, registration, fees, and test dates and locations, refer to the WEST-E Resource Website, [www.wce.wvu.edu/Resources/Endorsements/WEST-E.shtml](http://www.wce.wvu.edu/Resources/Endorsements/WEST-E.shtml). Candidates for residency certification must also complete the state of Washington Preservice Teacher Performance Assessment during the student teaching internship. Application for the residency certificate is made to Woodring College Certification Office, Student Services, Miller Hall 150, phone 360-650-4930, no later than three months prior to the start of the internship.

The first-issue residency certification has no defined expiration date. It is valid until the teacher completes at least 1.5 years of successful teaching experience accumulated over a minimum of two years in a state-approved public, private or state-operated education program. A three year residency certificate is then issued by the state. The timeline for earning a second level professional certificate begins with the re-issued residency certificate.

### *Professional Teacher Certification*

The second-level professional certificate is awarded to experienced teachers who hold a valid residency certificate, and who pass the Washington ProTeach Portfolio assessment or earn national board certification through the National Board for Professional Teaching Standards. For further information, contact the Woodring College of Education certification officer at 360-650-4630, Miller Hall 150.

### *Endorsements*

An endorsement identifies the subject matter in which a teacher is prepared and authorized by the state to teach. One qualifying endorsement is required for residency certification. Courses required for a teaching endorsement and the professional education sequence must be completed with a grade of C (2.0) or better. Elementary education students complete the professional program and an approved major designed specifically for elementary education candidates to earn a residency certificate endorsed in Elementary Education. Approved academic majors are listed below under *Choosing an Academic Major*. Early childhood education students complete the professional program and the Early Childhood Education (P-3) Major or the Early Childhood Education (P-3) and Elementary Education major to earn a residency certificate endorsed in Early Childhood Education (P-3). Students may earn an additional endorsement in Bilingual Education, English Language Learner, or Reading through the Department of Elementary Education.

For information on other additional endorsement programs offered throughout the University, contact the Woodring College of Education certification officer at 360-650-4630, Miller Hall 150.

### **Choosing an Academic Major**

Students who wish to earn a teacher certificate endorsed in Early Childhood Education must also complete the early childhood education major or the early childhood education with elementary education major.

Students who wish to earn a teacher certificate endorsed in Elementary Education must also complete one of the approved academic majors for elementary education. They include anthropology; art; communication; environmental studies; foreign language (French, German, and Spanish); general science; general science-middle level; geography; geology (earth science); history; language, literacy, and cultural studies; mathematics; psychology (human development); sociology; special education. While information on each of these majors is available throughout this catalog, it is important to seek advisement from faculty in the appropriate department before beginning work on an academic major.

### **Professional Program Requirements**

#### *Program Length*

While it is possible to earn a bachelor's degree and initial teaching certificate with certain majors in four academic years, most students require slightly longer. Following acceptance by the College of Education, which requires at least sophomore status, the student should expect to take seven to eight quarters to complete the teacher certification program. During these remaining quarters, the student has time to work on

the academic major and General University Requirements (GURs). Students who enter the College of Education as juniors (e.g., many transfer students) should have satisfied nearly all of the GURs and should have a good start on their academic major.

## Declaration Process

All applicants to the Woodring College of Education undergraduate and post-baccalaureate teacher education programs must be formally admitted to and currently enrolled at Western Washington University or must apply to Western for the same quarter they apply to teacher education. Woodring College teacher education program application materials are available in Miller Hall 250 and are also printable from [www.wce.wvu.edu/Admiss](http://www.wce.wvu.edu/Admiss).

The requirements listed below are minimum application criteria. Enrollment restrictions apply to teacher education programs. Meeting the following requirements makes the applicant eligible for admission consideration but does not guarantee admission. Students who meet all criteria are further evaluated to determine the most qualified applicants. Students will be evaluated on all information provided with the application, including required copies of transcripts from all prior colleges.

### *Application criteria:*

- Completion of at least 45 quarter credits of college-level course work
- Cumulative grade point average of 2.75 or higher overall college-level work or over the last 45 credits
- Passing scores on all three subtests (reading, mathematics, writing) of the Washington Educator Skills Test-Basic (WEST-B); visit the WEST-B Website at [www.west.nesinc.com](http://www.west.nesinc.com) for more information
- Completion of an English composition course with a grade of B- (2.7) or higher
- Experiences with children, strong interpersonal communication skills, and other skills helpful in teaching are given special emphasis.

### *Program Continuation*

Students admitted to the Woodring College of Education must meet specified requirements throughout the course of their teacher education program in order to remain in the program.

### *Requirements upon Program Admission*

- *Institutional Application for a Teacher's Certificate and Character and Fitness Supplement*, and background checks as described below under Character and Fitness
- Woodring College of Education Professional Orientation
- Woodring College of Education Prevention of Sexual Harassment Training
- Woodring College of Education Blood-Borne Pathogens Training

### *Character and Fitness*

The Washington Administrative Code requires applicants for teacher certification to give evidence of "good moral character and personal fitness." Students provide evidence of character and fitness through two separate but related processes:

- An Institutional Application for a *Teacher's Certificate and Character and Fitness Supplement*, provided to students upon acceptance into the program. The application for certification requires candidates to answer questions regarding professional fitness, criminal history and personal conduct. Students with "yes" responses must report to the certification officer in Miller Hall 150 before registering for classes
- Washington State Patrol and FBI background checks through a fingerprinting process. Procedures and fee information are provided to students upon acceptance into the program

No student in a teacher education program may participate in a University-sponsored activity in the public schools until cleared by the Washington State Patrol, or in some cases, investigated and then cleared by the Washington State Office of Superintendent of Public Instruction. Clearances are valid for specified time frames. Students must maintain character and fitness clearance until they have been recommended for a residency teacher certificate following completion of the teacher education program.

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In addition to the Washington state character and fitness requirements noted above, students must abide by the Woodring College of Education conduct policies acknowledged in the *Student Conduct Requirements and Agreement*, which is submitted with program application materials.

### *General Retention Requirements*

- Students must maintain at least a 2.75 GPA, beginning with the quarter they are notified of admission to Elementary Education. This requirement applies even to quarters where no education courses are being taken. Students who fail to meet this standard will receive a letter advising them that they have been dropped from the program. Grade point average for the academic major or minor may differ among academic departments
- Students must earn a grade of C (2.0) or better in both the professional education sequence and in all courses required for the endorsement
- Students must understand and demonstrate a high level of competence in the English language. Those who have difficulty in their verbal and/or written communications should expect to seek remediation before beginning the internship
- Students who interrupt enrollment in a teacher education program for more than two consecutive quarters (summer quarter not included) must meet all program admission, completion and certification requirements in place for the quarter in which they expect to return.

## **Other Departmental Information**

### *Program Completion*

To qualify for program completion and recommendation for state of Washington residency certification, students must complete the following requirements and assessments:

- A baccalaureate or higher-level degree from a regionally accredited college or university
- A state-approved, performance-based teacher preparation program that includes preparation in an endorsable subject area, teaching methodology, and an internship
- Evidence of good moral character and personal fitness
- Minimum scores set by the state of Washington on the Washington Educator Skills Test (WEST-E) for the qualifying endorsement area(s)
- Completion of the Washington Preservice Teacher Performance Assessment
- Successful completion of the student teaching internship as shown by performance on the WWU Intern Development and Evaluation System (IDES)

### *Internship*

An important experience for teacher certification candidates is the student teaching internship. Students spend two quarters taking final classes in the program along with time in their assigned classroom preparing for quarter three when they are full-time teaching under the direct supervision of a certificated teacher in a school setting. This internship involves intensive practice in integrating methods, content area knowledge, and classroom organizational strategies.

Students will be able to work part time during two quarters of the three quarter internship. However, one quarter of the internship involves full-time teaching responsibilities. It is our advice that candidates NOT work during the full-time internship so they may gain maximum benefit from the experience and perform at his or her highest ability.

Because the internship should be completed in a single classroom for all three quarters, it is likely that internship placement will be in a school site within Whatcom and Skagit counties. Exceptions to this rule will be made for students approved by the department to enroll in the Global Student Teaching Program.

The Office of Field Experiences (OFE) is the service agency of the Woodring College of Education that seeks placement for prospective interns. Students apply for their internship around January prior to a fall internship

start quarter, or April prior to a winter or spring internship start quarter. Specific dates for informational meetings and application deadlines are published on the OFE Website, [www.wce.wvu.edu/Resources/OFE](http://www.wce.wvu.edu/Resources/OFE). Before commencement of the internship, passing scores on the WEST-E for each endorsement must be submitted, all educational endorsement course work and practica must be completed, and fingerprint/character and fitness clearance must be valid. Students who interrupt enrollment for a quarter or more must meet the deadline for filing a returning student application.

OFE does not guarantee placements. Placement in a school is contingent upon:

- Fulfillment of all program requirements (satisfactory academic work, education and endorsement program course work and training, practica, and faculty recommendations)
- Submission of passing scores on the WEST-E test(s) for each endorsement
- Availability of placements and supervision in specific subjects and grade levels
- Acceptance by P-12 school personnel
- Fingerprint/character and fitness clearance through the point of certification

Students are required to interview with the public school teacher to whom they will be assigned, for final approval of placement. OFE will make every effort to arrange up to three initial interviews but does not guarantee an interview.

Any subsequent placement after a voluntary or nonvoluntary withdrawal from an internship will be granted only by faculty recommendation following a case conference.

For further information, contact the Woodring College Office of Field Experiences, Student Services, phone 360-650-3310, Miller Hall 150.

#### *Instructional Technology*

The Instructional Technology program offers instruction and research opportunities in the use of instructional technology in education and training, including effective use of emerging and mobile technologies. The program's offerings are designed for those who wish to improve or develop their abilities to select, use, adapt, and create learning materials incorporating technology. This program provides teachers and trainers with background necessary to integrate instructional technology into their lessons.

For further information, contact the program advisement office, Miller Hall 301D, phone 360-650-7948, e-mail [Ellen.Kreider@wvu.edu](mailto:Ellen.Kreider@wvu.edu).

#### ***Teaching English to Speakers of Other Languages Certificate Program***

The TESOL Certificate Program focuses on preparing participants to work with English language learners who are interested in developing their skills in English. Work is most often in international language schools, community language school settings for new or recent immigrants, and community college ESL classes. Students earning the TESOL certificate with an adult focus must demonstrate competencies for teaching adults in language programs.

Completion of the 27 credit sequence of courses results in a certificate of achievement in TESOL awarded by the TESOL program at the university. This certificate can be used both domestically and internationally as evidence of in-depth training in Teaching English to Speakers of Other Languages (TESOL).

Developing effective skills to work cross-linguistically and cross-culturally is a central objective of the program course work. Non-native speakers of English are required to have a TOEFL score of 550 or higher prior to beginning the program. Completion of any certificate, minor, or endorsement requires cross-cultural study and study of a foreign language. The cross-cultural and foreign language requirements may be satisfied through previous course work or experience, or concurrently with the program, at the discretion of the program director.

Completion of a certificate or minor requires cross-cultural study (gained through experience, or the minimum of 3 credits of approved course work) and the equivalent of one year of college-level foreign language study. The program course work is offered in two formats: online and face-to-face. Many students choose to take late afternoon courses during fall, winter and spring quarters with an intensive summer option. Others choose to take the certificate courses online. Still others combine courses from face-to-face and online options. Students fully admitted to Western may integrate a concentration in TESOL into the course work of several

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majors, such as linguistics and American cultural studies, recognizing that the TESOL certificate is offered through Extended Education and requires a different type of registration.

All applicants should contact the Elementary Education office for advising on the admissions process, which will include an application to the TESOL program, and formal admission to the University. TESOL information is available by phone at 360-650-3336, or visit the website at <http://www.acadweb.wvu.edu/eesp/tesol/index.shtml>.

### Graduate Study

The Department of Elementary Education offers a Master of Education in Literacy designed for educators who want to deepen their knowledge and practice in literacy instruction. See the Graduate School section of this catalog.

## Bachelor of Arts in Education

### Early Childhood Education - Non Certification, BAE

#### 100 credits

#### Introduction/What is the Study of Early Childhood Education?

The program in early childhood education consists of an academic major in Early Childhood Education and a sequence of professional courses. Upon completion of the program, candidates can work in childcare centers, preschools, Head Start programs, and in after-school programs for school-age children. The course work offers a combination of theory, methods, and field experiences in a variety of early childhood education settings. This program is for candidates who are not seeking certification to work in the public schools. Students seeking a bachelor's degree with the academic major in Early Childhood Education must complete the General University Requirements, the Early Childhood Education (P-3) Major, and the required professional education coursework.

#### Why Consider an Early Childhood Education - Non Certification Major?

The Early Childhood Education - Non Certification major has several unique program features:

- Students attend classes with other early childhood education students as a cohort group throughout the program.
- Students gain experience in teaching children in three age groups (infant/toddlers, pre-primary and primary) and in a variety of settings.
- Students are taught to understand and respect intercultural/familial diversity as they learn to develop partnerships with families.
- Students learn to use inquiry tools and process for developing meaningful and integrated learning experiences for young children.

Contact Information		
<b>Department Chair</b> David Carroll Miller Hall 301C 360-650-2251 David.Carroll@wvu.edu	<b>Program Director</b> Eileen Hughes Miller Hall 303A 360-650-3416 Eileen.Hughes@wvu.edu	<b>Assistant Professor</b> Marilyn Chu Miller Hall 302B 360-650-2737 Marilyn.Chu@wvu.edu
<b>Undergraduate Advisor and Program Manager</b> Ellen Kreider Miller Hall 301D	<b>Teacher Education Admissions</b> Miller Hall 150 360-650-3313	

360-650-7948

<http://www.wce.wvu.edu/admiss>

Ellen.Kreider@wvu.edu

Sample Careers

Elementary Education Teacher (P-3) | Head Start | Childcare

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)**How to Declare (Admission and Declaration Process):**

Admission to both Western Washington University and Early Childhood Education are required before a student may begin taking courses in the professional sequence. Requirements for consideration of an application include:

- completion of a minimum of 45 credits
- cumulative grade point average of 2.75 or higher for the last 45 credits
- acceptable WEST-B scores. This test is offered 6 times a year at various sites in the state. Visit the WEST-B website at <http://www.west.nesinc.com> for more information.
- completion of an English composition course with grade of B- or higher

Enrollment restrictions apply in all teacher education programs. Meeting the above criteria makes the applicant eligible for admission, but does not guarantee admission. Applications from students who meet all the criteria are evaluated to determine those most qualified. All applicants are then rank-ordered, and a final list created based on available openings. For further information, visit Teacher Education Admissions, Miller Hall 150, (360) 650-3313 or visit the website at <http://www.wce.wvu.edu/admiss>. Retention in the program requires continuous demonstration of competence in standard oral and written English in all course work. Retention also requires maintenance of a 2.75 quarterly GPA for each quarter upon admission to Early Childhood Education. Courses required for a state teaching endorsement and for the professional sequence must be completed with grades of C (2.0) or better.

**Student Advisement**

Prospective Early Childhood students are invited to meet with an advisor for more information about the program. The office is in Miller Hall 300 and the phone number is (360) 650-3336. Once admitted to the program, students are assigned a faculty advisor with whom they will stay in contact throughout their program.

**Grade Requirements**

Students must earn a grade of C (2.0) or better.

**Required Courses**

- ECE 380 - Foundations of Literacy for Early Childhood Education
- ECE 390 - Infant and Toddler Practicum and Seminar
- ECE 391 - Preschool Practicum and Seminar
- ECE 430 - Creativity & Play in ECE
- ECE 431 - Fundamentals of Early Childhood Education
- ECE 434 - Environments for Early Learning
- ECE 435 - Child Abuse and Neglect
- ECE 436 - Child Guidance: Principles and Practices
- ECE 438 - Family and Community Relationships
- ECE 439 - Curriculum Planning in Early Childhood Education
- ECE 495 - Internship - Preschool
- ECE 498 - Seminar in Early Childhood Education
- ELED 301 - Educational Psychology I: Development and Individual Differences

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- ELED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ELED 310 - Education, Culture, and Equity
- ELED 480 - Literacy: Beginning Communicators
- I T 344 - Basic Instructional Technology Skills
- I T 442 - Classroom Use of Instructional Technology (Elementary)
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science
- SPED 364 - Teaching Each Student
- SPED 443 - Early Development Variations
- SPED 444 - Assessment and Intervention in Early Childhood Special Education

### Early Childhood Education P-3 Option, BAE

Department of Elementary Education, Woodring College of Education

#### 130 credits (major and professional program)

#### Introduction/What is the Study of Early Childhood Education?

The program in early childhood education consists of an academic major in Early Childhood Education and a sequence of professional certification courses that lead to teacher licensure Pre-K through third grade. Upon completion of the program, candidates can work in childcare centers, preschools, Head Start programs, and primary grades in public schools. The course work offers a combination of theory, methods, and field experiences in a variety of early childhood education.

Students seeking a bachelor's degree with teacher certification and an endorsement in early childhood education (P-3) must complete the General University Requirements, the Early Childhood Education (P-3) Major, and the professional education coursework.

#### Why Consider an Early Childhood Education P-3 Option Major?

The Early Childhood Education (P-3) major has several unique program features:

- Students attend classes with other early childhood education students as a cohort group throughout the program.
- Students gain experience in teaching children in three age groups (infant/toddlers, pre-primary and primary) and in a variety of settings.
- Students are taught to understand and respect intercultural/familial diversity as they learn to develop partnerships with families.
- Students learn to use inquiry tools and process for developing meaningful and integrated learning experiences for young children.

Contact Information		
<b>Department Chair</b> David Carroll Miller Hall 301C 360-650-2251 David.Carroll@wwu.edu	<b>Program Director</b> Eileen Hughes Miller Hall 303A 360-650-3416 Eileen.Hughes@wwu.edu	<b>Assistant Professor</b> Marilyn Chu Miller Hall 302B 360-650-2737 Marilyn.Chu@wwu.edu
<b>Undergraduate Advisor and Program Manager</b> Ellen Kreider	<b>Teacher Education Admissions</b> Miller Hall 150	

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<http://www.wce.wwu.edu/admiss>

#### Sample Careers

Elementary Education Teacher (P-3) | Head Start | Childcare

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingmajor.shtml](http://www.wwu.edu/careers/students_choosingmajor.shtml)

### How to Declare (Admission and Declaration Process):

Admission to both Western Washington University and Early Childhood Education are required before a student may begin taking courses in the professional sequence. Requirements for consideration of an application include:

- completion of a minimum of 45 credits
- cumulative grade point average of 2.75 or higher for the last 45 credits
- acceptable WEST-B scores. This test is offered 6 times a year at various sites in the state. Visit the WEST-B website at <http://www.west.nesinc.com> for more information.
- completion of an English composition course with grade of B- or higher

Enrollment restrictions apply in all teacher education programs. Meeting the above criteria makes the applicant eligible for admission, but does not guarantee admission. Applications from students who meet all the criteria are evaluated to determine those most qualified. All applicants are then rank-ordered, and a final list created based on available openings. For further information, visit Teacher Education Admissions, Miller Hall 150, 360/650-3313 or visit the website at <http://www.wce.wwu.edu/admiss>. Retention in the program requires continuous demonstration of competence in standard oral and written English in all course work. Retention also requires maintenance of a 2.75 quarterly GPA for each quarter upon admission to Early Childhood Education. Courses required for a state teaching endorsement and for the professional sequence must be completed with grades of C (2.0) or better.

#### Student Advisement

Prospective Early Childhood students are invited to meet with an advisor for more information about the program. The office is in Miller Hall 300 and the phone number is (360) 650-3336. Once admitted to the program, students are assigned a faculty advisor with whom they will stay in contact throughout their program.

### Grade Requirements

Students must earn a grade of C (2.0) or better in the early childhood education professional program and in all courses required for the endorsement.

#### Requirements

##### Required courses (43 credits)

- ECE 390 - Infant and Toddler Practicum and Seminar
- ECE 391 - Preschool Practicum and Seminar
- ECE 430 - Creativity & Play in ECE
- ECE 431 - Fundamentals of Early Childhood Education
- ECE 434 - Environments for Early Learning
- ECE 435 - Child Abuse and Neglect
- ECE 436 - Child Guidance: Principles and Practices
- ECE 438 - Family and Community Relationships
- ECE 439 - Curriculum Planning in Early Childhood Education
- SPED 443 - Early Development Variations



## ELEMENTARY EDUCATION

- SPED 444 - Assessment and Intervention in Early Childhood Special Education

### Additional Requirements

#### Early Childhood Education Professional Program (87 credits)

- ECE 380 - Foundations of Literacy for Early Childhood Education
- ECE 495 - Internship - Preschool
- ECE 496 - Internship - Primary
- ECE 498 - Seminar in Early Childhood Education (2 credits with ECE 495)
- ELED 301 - Educational Psychology I: Development and Individual Differences
- ELED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ELED 310 - Education, Culture, and Equity
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 491 - September Experience
- I T 344 - Basic Instructional Technology Skills
- I T 442 - Classroom Use of Instructional Technology (Elementary)
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science
- SPED 364 - Teaching Each Student

## Early Childhood Education P-3 with Elementary Education Option, BAE

### 141 credits (major and professional program)

#### Introduction/What is the Study of Early Childhood Education?

The program in early childhood education consists of an academic major in Early Childhood Education and a sequence of professional certification courses that lead to dual endorsements for teacher licensure Pre-K through third grade and K-8th grade. Upon completion of the program, candidates can work in childcare centers, preschools, Head Start programs, and primary grades in public schools. The course work offers a combination of theory, methods, and field experiences in a variety of early childhood education settings. Students seeking a bachelor's degree with teacher certification and an endorsement in early childhood education (P-3) and K-8th grade licensure must complete the General University Requirements, the Early Childhood Education (P-3) Major, and the professional education coursework.

#### Why Consider an Early Childhood Education P-3 with Elementary Education Option Major?

The Early Childhood Education (P-3) major has several unique program features:

- Students attend classes with other early childhood education students as a cohort group throughout the program.

- Students gain experience in teaching children in three age groups (infant/toddlers, pre-primary and primary) and in a variety of settings.
- Students are taught to understand and respect intercultural/familial diversity as they learn to develop partnerships with families.
- Students learn to use inquiry tools and process for developing meaningful and integrated learning experiences for young children.

Contact Information

<b>Department Chair</b>	<b>Program Director</b>	<b>Assistant Professor</b>
David Carroll Miller Hall 301C 360-650-2251 David.Carroll@wwu.edu	Eileen Hughes Miller Hall 303A 360-650-3416 Eileen.Hughes@wwu.edu	Marilyn Chu Miller Hall 302B 360-650-2737 Marilyn.Chu@wwu.edu
<b>Undergraduate Advisor and Program Manager</b>	<b>Teacher Education Admissions</b>	
Ellen Kreider Miller Hall 301D 360-650-7948 Ellen.Kreider@wwu.edu	Miller Hall 150 360-650-3313 <a href="http://www.wce.wwu.edu/admiss">http://www.wce.wwu.edu/admiss</a>	

Sample Careers

Elementary Education Teacher (P-3) | Head Start | Childcare

Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Admission to both Western Washington University and Early Childhood Education are required before a student may begin taking courses in the professional sequence. Requirements for consideration of an application include:

- completion of a minimum of 45 credits
- cumulative grade point average of 2.75 or higher for the last 45 credits
- acceptable WEST-B scores. This test is offered 6 times a year at various sites in the state. Visit the WEST-B website at <http://www.west.nesinc.com> for more information.
- completion of an English composition course with grade of B- or higher

Enrollment restrictions apply in all teacher education programs. Meeting the above criteria makes the applicant eligible for admission, but does not guarantee admission. Applications from students who meet all the criteria are evaluated to determine those most qualified. All applicants are then rank-ordered, and a final list created based on available openings. For further information, visit Teacher Education Admissions, Miller Hall 150, (360) 650-3313 or visit the website at <http://www.wce.wwu.edu/admiss>. Retention in the program requires continuous demonstration of competence in standard oral and written English in all course work. Retention also requires maintenance of a 2.75 quarterly GPA for each quarter upon admission to Early Childhood Education. Courses required for a state teaching endorsement and for the professional sequence must be completed with grades of C (2.0) or better.

Student Advisement

Prospective Early Childhood students are invited to meet with an advisor for more information about the program. The office is in Miller Hall 300 and the phone number is (360) 650-3336. Once admitted to the program, students are assigned a faculty advisor with whom they will stay in contact throughout their program.

# ELEMENTARY EDUCATION

## Grade Requirements

Students must earn a grade of C (2.0) or better in the early childhood education major and in all courses required for the endorsements.

### Required Courses (43 credits)

- ECE 390 - Infant and Toddler Practicum and Seminar
- ECE 391 - Preschool Practicum and Seminar
- ECE 430 - Creativity & Play in ECE
- ECE 431 - Fundamentals of Early Childhood Education
- ECE 434 - Environments for Early Learning
- ECE 435 - Child Abuse and Neglect
- ECE 436 - Child Guidance: Principles and Practices
- ECE 438 - Family and Community Relationships
- ECE 439 - Curriculum Planning in Early Childhood Education
- SPED 443 - Early Development Variations
- SPED 444 - Assessment and Intervention in Early Childhood Special Education

### Additional Requirements

### Early Childhood and Elementary Education Professional Program (98 credits)

- ECE 495 - Internship - Preschool
- ECE 498 - Seminar in Early Childhood Education
- ELED 301 - Educational Psychology I: Development and Individual Differences
- ELED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ELED 310 - Education, Culture, and Equity
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- ELED 496 - Elementary Intern Study Group (Optional)
- I T 344 - Basic Instructional Technology Skills
- I T 442 - Classroom Use of Instructional Technology (Elementary)
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science
- SPED 364 - Teaching Each Student

## Language, Literacy, and Cultural Studies, BAE

Department of Elementary Education, Woodring College of Education

### 45-54 credits

#### Introduction/What is the Study of Language, Literacy and Culture?

The Bachelor of Arts in Education: Language, Literacy, and Cultural Studies major responds to the growing diversity in the state's schools and supports the Woodring College of Education's efforts to embrace diversity and promote social justice. The major focuses on research-based and experience-validated knowledge to help elementary school teachers reach all students. This includes increasing teacher candidates' cultural competency and capacity to teach English language learners. Graduates receive WWU's recommendation for a Residency Teaching Certificate with endorsements in Elementary Education, Reading, and English Language Learners (ELL) or Bilingual Education (BE).

#### Why Consider a Language, Literacy and Culture Major?

This program in elementary education is designed to provide a combination of theory, methods, and field experience. Prior to entering the program, undergraduates will complete most or all of their general university requirements (GURs). After completion of the GURs, it will usually take eight or nine quarters to graduation, given a course load of 15-17 credits. Post-baccalaureate students must have completed a major from the approved list (see below) or call (360) 650-3336 for further advisement.

#### Contact Information

##### Department Chair

David Carroll  
Miller Hall 301C  
360-650-2251  
David.Carroll@wwu.edu

##### Program Director

Marsha Riddle Buly  
Miller Hall 305B  
360-650-7348

##### Undergraduate Advisor and Program Manager

Ellen Kreider  
Miller Hall 301D  
360-650-7948  
Ellen.Kreider@wwu.edu

##### Teacher Education Admissions

Miller Hall 150  
360-650-3313  
<http://www.wce.wwu.edu/admiss>

#### Sample Careers

Elementary Education Teacher

#### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Admission to Western Washington University and admission to Elementary Education are required before a student may begin taking courses in the Professional Sequence and most courses in the Language, Literacy and Cultural Studies major. Please consult the LLC sheet and receive advisement for information about courses that may be taken before admission. Requirements for consideration of an application include:

- completion of a minimum of 45 credits
- cumulative grade point average of 2.75 or higher overall or for the last 45 credits
- acceptable WEST-B scores. This test is presently offered 6 times a year at various sites in the state. Visit the WEST-B website at <http://www.west.nesinc.com> for more information.
- completion of an English composition course with grade of B- or higher
- completed application (see web site for dates)

## ELEMENTARY EDUCATION

Enrollment restrictions apply in all teacher education programs. Meeting the above criteria makes the applicant eligible for admission, but does not guarantee admission. Applications from students who meet all the criteria are evaluated to determine those most qualified. All applicants are then rank-ordered, and a final list created based on available openings. For further information, visit Teacher Education Admissions, Miller Hall 150, 360-650-3313 or visit the web site at <http://www.wce.wvu.edu/admiss>.

Retention in the program requires continuous demonstration of competence in standard oral and written English in all coursework. Retention also requires maintenance of a 2.75 quarterly GPA for each quarter upon admission to Elementary Education. Courses required for a state teaching endorsement and for the professional education sequence must be completed with a grading of C (2.0) or better.

### **Student Advisement**

Prospective elementary education students are invited to meet with an advisor for more information about the program. The main office is in Miller Hall 300 and the phone number is (360) 650-3336. Once admitted to the program, students are assigned a faculty advisor with whom they will stay in contact throughout their program.

### **Grade Requirements**

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

#### Requirements

- ELED 456 - Literacy Assessment
- ELED 486 - Literacy Difficulties in the K-12 Classroom
- ELED 401 - Writing Instruction in the Elementary Classroom
- ELED 405 - Culturally Relevant Materials for Diverse Learners
- ELL 431 - Second Language Acquisition Theory and Policy for P-12 Teachers
- ELL 432 - Introduction to English Linguistics for P-12 Teachers
- ELL 433 - Understanding Bilingual Learners in a Sociocultural Context
- ELL 434 - Methods And Materials For Teaching Beginning ELLs in Grades P-12
- ELL 436 - Seminar and Practicum for ELL or Bilingual P-12 Teachers
- ELL 438 - Methods and Programming for P-12 Bilingual Classrooms (for students seeking a bilingual endorsement)
- Choose two from the following (no more than one of which may be a 400 level course):
  - AMST 202 - The American Indian Experience
  - AMST 203 - The Hispano/a-American Experience
  - AMST 204 - The African-American Experience
  - AMST 205 - The Asian-American Experience
  - AMST 314 - Contemporary Latino/A Issues
  - AMST 315 - Contemporary American Indian Issues
  - AMST 316 - Contemporary African American Issues
  - AMST 362 - Asian-American History
  - AMST 412 - Seminar in Educational Equity
  - AMST 413 - Bridging Barriers with Migrant Youth
  - AMST 464 - Multicultural Ed for Teachers

#### Additional Requirements

Elementary Education Professional Program Requirements (103-104 credits)

Department of Elementary Education, Woodring College of Education

### **Introduction**

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

### **Admission and Declaration Process**

Admission Requirements

### **Grade Requirements**

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

Professional Studies Core (25 credits)

- ELED 301 - Educational Psychology I: Development and Individual Differences
- ELED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Basic Instructional Technology Skills
- I T 442 - Classroom Use of Instructional Technology (Elementary)
- SPED 364 - Teaching Each Student

Elementary Program — Methods, Curriculum Content, and Field Experiences (78-79 credits)

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators
- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
  - ELED 425 - Social Studies for the Elementary School
  - ELED 470 - Developing Teaching
  - ELED 471 - Documenting Teaching
  - ELED 480 - Literacy: Beginning Communicators
  - ELED 481 - Literacy: Fluent Communicators
  - ELED 491 - September Experience
  - ELED 492 - Practicum: Experience in Literacy Methods
  - ELED 494 - Internship - Elementary
  - HLED 455 - Health Education Grades K-8
  - MATH 381 - Teaching K-8 Mathematics I
  - MATH 382 - Teaching K-8 Mathematics II
  - MATH 383 - Teaching K-8 Mathematics III
  - MATH 491 - Internship Seminar - Teaching K-8 Mathematics

## ELEMENTARY EDUCATION

- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

## Additional Endorsement

### Bilingual Education - Endorsement

Department of Elementary Education, Woodring College of Education

#### 33 credits

#### Introduction/What is the Study of Bilingual Education?

This program leads to an additional endorsement in Bilingual Education; when accompanied by a professional teacher education program and a first endorsement in another content area. Also required is a cultural studies course taught in the language of that culture or demonstration of equivalent experience. Expected proficiency is equivalent to a major in the language other than English, and oral proficiency at the ACTFL mid-advanced level. Each required course must be completed with a grade of B- (2.7) or better. A passing score on the Bilingual WEST-E and an assessment in the non-English language of instruction is required by the state.

#### Why Consider an Endorsement in Bilingual Education?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

#### Grade Requirements

Each required course must be completed with a grade of B- (2.7) or better.

#### Requirements

- ELL 431 - Second Language Acquisition Theory and Policy for P-12 Teachers
- ELL 432 - Introduction to English Linguistics for P-12 Teachers
- ELL 433 - Understanding Bilingual Learners in a Sociocultural Context
- ELL 434 - Methods And Materials For Teaching Beginning ELLs in Grades P-12
- ELL 435 - Methods and Materials for Academic Language Proficiency in Grades P-12
- ELL 436 - Seminar and Practicum for ELL or Bilingual P-12 Teachers
- ELL 438 - Methods and Programming for P-12 Bilingual Classrooms

### English Language Learner Endorsement

Department of Elementary Education, Woodring College of Education

#### 27 credits

### **Introduction/What is the Study of English Language?**

The Department of Elementary Education offers teacher endorsement programs in both English Language Learners (ELL) and in Bilingual Education. While an undergraduate can add both an ELL and a bilingual endorsement, only one minor can be declared; TESOL P-12 focus or bilingual education.

This program leads to an additional endorsement in English Language Learners based on Washington state English Language Learners endorsement competencies, when accompanied by a professional teacher education program and a first endorsement in another content area. Students must demonstrate study of another culture (gained through experience, or the minimum of 3 credits of approved course work) and the equivalent of one year of college-level language study world language other than English. A passing score on the ELL WEST-E is required by the state.

### **Why Consider a Learner Endorsement in English Language?**

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

#### **Grade Requirements**

Each required course must be completed with a grade of B- (2.7) or better.

Requirements

- ELL 431 - Second Language Acquisition Theory and Policy for P-12 Teachers
- ELL 432 - Introduction to English Linguistics for P-12 Teachers
- ELL 433 - Understanding Bilingual Learners in a Sociocultural Context
- ELL 434 - Methods And Materials For Teaching Beginning ELLs in Grades P-12
- ELL 435 - Methods and Materials for Academic Language Proficiency in Grades P-12
- ELL 436 - Seminar and Practicum for ELL or Bilingual P-12 Teachers

### **Reading – P-12 Additional Endorsement**

Department of Elementary Education, Woodring College of Education

#### **24-27 credits**

#### **Introduction/What is the Study of Reading?**

This program, combined with a performance-based assessment of competencies, leads to an additional endorsement in Reading when accompanied by a professional education program and a qualifying endorsement in another content area.

#### **Why Consider a P-12 Additional Endorsement in Reading?**

Contact Information



## Sample Careers

## Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

#### **Grade Requirements**

All coursework and demonstration of state-required competencies must be completed with a grade of B (3.0) or better and within a five-year span, based on the application date for the reading endorsement.

#### Requirements

- One course from:
  - ELED 456 - Literacy Assessment
  - ELED 538 - Current Issues in Assessment and Evaluation in Elementary Literacy Education or equivalence upon approval by advisor
- One course from:
  - ELED 480 - Literacy: Beginning Communicators
  - ELED 587 - Improvement of Instruction in Literacy or equivalence upon approval by advisor
- One course from:
  - ELED 481 - Literacy: Fluent Communicators
  - ELED 584 - Teaching the Integrated Language Arts or equivalence upon approval by advisor
- One course from:
  - ELED 486 - Literacy Difficulties in the K-12 Classroom
  - ELED 586 - Seminar for Literacy Specialists or equivalence upon approval by advisor
- One course from:
  - ELL 432 - Introduction to English Linguistics for P-12 Teachers
  - TESL 401 - Introduction to English Linguistics for TESOL or equivalence upon approval by advisor
- One course from:
  - ELED 405 - Culturally Relevant Materials for Diverse Learners
  - ELED 583 - Literacy and Children's Literature or equivalence upon approval by advisor

## **Master of Education**

### **Literacy, Non-Thesis, MEd**

*Woodring College of Education*

#### **Graduate Faculty**

**Carney, Joanne**, PhD.

**Carroll, David**, PhD.

**Coskie, Tracy**, PhD.  
**Dagnon, Paula**, PhD.  
**Flores, Maria**, PhD.  
**French, Kristen**, EdD.  
**Green, Jennifer**, PhD.  
**Hoelscher, Karen**, EdD.  
**Hughes, Eileen**, PhD.  
**Johnson, Nancy**, PhD.  
**Larson, Bruce**, PhD.  
**McClanahan, Lauren**, PhD.  
**Miller, Matthew**, PhD.  
**Ohana, Chris**, PhD.  
**Romano, Rosalie**, PhD.  
**Riddle Buly, Marsha**, PhD.  
**Wayne, Kathryn**, PhD.  
**Wolpow, Ray**, PhD.

Graduate Program Advisor: Dr. Tracy Coskie, Miller Hall 264B, 360-650-2164

### Program Description

The MEd – Literacy has four main components: foundations, core study, independent research, and study in a concentration area. May provide Washington state additional endorsement in reading.

### Program Application/Admission Requirements

Candidates must meet the requirements of the Graduate School (see pages 58-59) in addition to the following departmental requirements:

- **Specific Test Requirements:** Miller Analogies Test or Graduate Record Exam, General Test.
- **Supporting Materials:**
  - A résumé
  - A statement of purpose for seeking the MEd, not to exceed one page
  - An on-campus interview (only if requested by the department)
  - In limited cases, students who do not meet the departmental requirements for full admission may be granted provisional admission by the Graduate School.

Students' applications are first reviewed by the Graduate School before consideration for admission to a specific program. No graduate Record Exams (GRE) or Miller Analogies Test (MAT) is required if an applicant holds an advanced degree.

Program Requirements (47 credits minimum)

#### Non-Thesis: Research Paper and General Comprehensive Exam

- Foundations (12 cr)
  - EDUC 501 - Introduction to Educational Research
  - EDUC 505 - Creating Classrooms for Learning
  - EDUC 691 - Research Seminar and Inquiry Project
- Core (12 cr)
  - ELED 521 - Seminar in Elementary Curriculum
  - ELED 535 - Research Analysis of Current Issues in Elementary Education
  - ELED 538 - Current Issues in Assessment and Evaluation in Elementary Literacy Education
- Concentration Electives (23-24 cr): Concentration electives will generally be selected, by advisement, from elementary and early childhood education, literacy, TESOL, ELL, Bilingual Education, and special education courses. Contact the department office for requirements within the various concentrations.

## ELEMENTARY EDUCATION

### Advancement to Candidacy

Advancement to candidacy is formal recognition that the student has completed all admission requirements and has demonstrated satisfactory performance in at least 12 credits of graduate study. In addition to the above requirements, the department requires students to submit a proposal for a research paper (EDUC 691) for approval by the student's committee.

### *Research Paper*

The research paper plus comprehensive exams (EDUC 691) represent the independent research component of the program. Students design and carry out independent research under the direction of a faculty committee. Two faculty are required for the committee directing the research paper (EDUC 691).

### Additional Information

## **Competency in Instructional Technology**

Students admitted to programs in the Woodring College of Education are required to possess competence in the use of instructional technology in education prior to completion of their program and, when applicable, prior to being recommended for certification. Procedures for demonstrating or developing competence are available in Miller Hall 204.

## **Comprehensive Assessment Woodring**

College of Education students in the Non-Thesis option are required to complete a comprehensive assessment. The format, timeline and criteria are defined by specific departments. For procedures, students should see their graduate advisors.

## **Second Master's Degree**

Enrollment must be for a single MEd, MA or MIT program. Students who have earned an MEd or MIT may apply for admission to another MEd program but all requirements of the second program must be met (with possible allowance for some course work taken in the first program). However, all programs must be completed with the minimum number of required credits.

**NOTE:** Due to a review and revision process which may affect Woodring College of Education programs and courses, the information contained in the Education section of this catalog is subject to change.

Post-baccalaureate candidates interested in combining teacher certification and master's degree study should contact the Teacher Education Admissions office or the Graduate Office.

Some programs include an internship. A Washington State Patrol/FBI fingerprint check is required of most students prior to the internship. Students should check with their department advisor for details.

## **Literacy, Thesis, MEd**

*Woodring College of Education*

### **Graduate Faculty**

**Carney, Joanne**, PhD.

**Carroll, David**, PhD.

**Coskie, Tracy**, PhD.

**Dagnon, Paula**, PhD.

**Flores, Maria**, PhD.

**French, Kristen**, EdD.

**Green, Jennifer**, PhD.

**Hoelscher, Karen**, EdD.

**Hughes, Eileen**, PhD.

**Johnson, Nancy**, PhD.

**Larson, Bruce**, PhD.

**McClanahan, Lauren**, PhD.

**Miller, Matthew**, PhD.

**Ohana, Chris**, PhD.

**Romano, Rosalie**, PhD.

**Riddle Buly, Marsha**, PhD.

**Wayne, Kathryn**, PhD.

**Wolpow, Ray**, PhD.

Graduate Program Advisor: Dr. Tracy Coskie, Miller Hall 264B, 360-650-2164

### Program Description

The MEd – Literacy has four main components: foundations, core study, independent research, and study in a concentration area. May provide Washington state additional endorsement in reading.

### Program Application/Admission Requirements

Candidates must meet the requirements of the Graduate School (see pages 58-59) in addition to the following departmental requirements:

- **Specific Test Requirements:** Miller Analogies Test or Graduate Record Exam, General Test.
- **Supporting Materials:**
  - A résumé
  - A statement of purpose for seeking the MEd, not to exceed one page
  - An on-campus interview (only if requested by the department)
  - In limited cases, students who do not meet the departmental requirements for full admission may be granted provisional admission by the Graduate School.

Students' applications are first reviewed by the Graduate School before consideration for admission to a specific program. No graduate Record Exams (GRE) or Miller Analogies Test (MAT) is required if an applicant holds an advanced degree.

Program Requirements (44 credits minimum)

#### Thesis

- Foundations (12 cr)
  - EDUC 501 - Introduction to Educational Research
  - EDUC 505 - Creating Classrooms for Learning
  - EDUC 690 - Thesis
- Core (12 cr)
  - ELED 521 - Seminar in Elementary Curriculum
  - ELED 535 - Research Analysis of Current Issues in Elementary Education
  - ELED 538 - Current Issues in Assessment and Evaluation in Elementary Literacy Education
- Concentration Electives (20-21 cr) Concentration electives will generally be selected, by advisement, from elementary and early childhood education, literacy, TESOL, ELL, Bilingual Education, and special education courses. Contact the department office for requirements within the various concentrations.

## ELEMENTARY EDUCATION

### Advancement to Candidacy

Advancement to candidacy is formal recognition that the student has completed all admission requirements and has demonstrated satisfactory performance in at least 12 credits of graduate study. In addition to the above requirements, the department requires students to submit a proposal for a thesis (EDUC 690) for approval by the student's committee.

### Thesis

The thesis (EDUC 690) represents the independent research component of the program. Students design and carry out independent research under the direction of a faculty committee. The thesis option (EDUC 690) requires a committee of three faculty.

### Additional Information

### Competency in Instructional Technology

Students admitted to programs in the Woodring College of Education are required to possess competence in the use of instructional technology in education prior to completion of their program and, when applicable, prior to being recommended for certification. Procedures for demonstrating or developing competence are available in Miller Hall 204.

### Second Master's Degree

Enrollment must be for a single MEd, MA or MIT program. Students who have earned an MEd or MIT may apply for admission to another MEd program but all requirements of the second program must be met (with possible allowance for some course work taken in the first program). However, all programs must be completed with the minimum number of required credits.

**NOTE:** Due to a review and revision process which may affect Woodring College of Education programs and courses, the information contained in the Education section of this catalog is subject to change.

Post-baccalaureate candidates interested in combining teacher certification and master's degree study should contact the Teacher Education Admissions office or the Graduate Office.

Some programs include an internship. A Washington State Patrol/FBI fingerprint check is required of most students prior to the internship. Students should check with their department advisor for details.

## Minor

### Bilingual Education Minor

Department of Elementary Education, Woodring College of Education

### 33 credits

#### Introduction/What is the Study of Bilingual Education?

Undergraduates may complete a 33-credit minor in Bilingual Education. To declare the Bilingual Education minor, students must complete a cultural studies course taught in the language of that culture, or demonstrate the equivalent in experience. Students must also be recommended by the department of Modern and Classical Languages prior to enrolling in the seminar and practicum in Bilingual Education or declaring the minor. Students must complete the minor with a minimum GPA of 2.7 in minor course work.

#### Why Consider a Bilingual Education Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

#### **Grade Requirements**

Students must complete the minor with a minimum GPA of 2.7 in minor course work.

#### Requirements

- ELL 431 - Second Language Acquisition Theory and Policy for P-12 Teachers
- ELL 432 - Introduction to English Linguistics for P-12 Teachers
- ELL 433 - Understanding Bilingual Learners in a Sociocultural Context
- ELL 434 - Methods And Materials For Teaching Beginning ELLs in Grades P-12
- ELL 435 - Methods and Materials for Academic Language Proficiency in Grades P-12
- ELL 436 - Seminar and Practicum for ELL or Bilingual P-12 Teachers
- ELL 438 - Methods and Programming for P-12 Bilingual Classrooms

## **Teaching English to Speakers of Other Languages Minor**

### **27 credits**

#### **Introduction/What is the Study of Teaching English to Speakers of Other Languages?**

The TESOL minor is available to undergraduate students in the TESOL certificate program with a focus on adult learners. Students earning an ELL and/or Bilingual Education endorsement may choose to complete either the 27-credit TESOL minor with a focus on P-12 learners or the 33-credit Bilingual Education minor, but not both. To declare the TESOL minor, students must demonstrate study of another culture (gained through experience, or the minimum of 3 credits of approved course work) and the equivalent of one year of college-level foreign language study.

#### **Why Consider a Teaching English to Speakers of Other Languages Minor?**

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

#### **Grade Requirements**

Students must complete the minor with a minimum GPA of 2.7 in minor course work.

# ELEMENTARY EDUCATION

## Requirements

Adult focus for TESOL Certificate Students:

- TESL 401 - Introduction to English Linguistics for TESOL
- TESL 404 - Understanding English Grammar for TESOL
- TESL 405 - Methods for Teaching English Grammar
- TESL 410 - Second Language Acquisition Theory for TESOL
- TESL 420 - Methods and Materials for Basic Communication
- TESL 421 - Methods and Materials for Academic Language Proficiency
- TESL 432 - Seminar in TESOL
- TESL 435 - Practicum in TESOL

OR

P-12 Focus for ELL Endorsement Students:

- ELL 431 - Second Language Acquisition Theory and Policy for P-12 Teachers
- ELL 432 - Introduction to English Linguistics for P-12 Teachers
- ELL 433 - Understanding Bilingual Learners in a Sociocultural Context
- ELL 434 - Methods And Materials For Teaching Beginning ELLs in Grades P-12
- ELL 435 - Methods and Materials for Academic Language Proficiency in Grades P-12
- ELL 436 - Seminar and Practicum for ELL or Bilingual P-12 Teachers

## WWU Certificate (Non-Degree)

### Certificate of Achievement TESOL

Woodring College of Education

#### 27 credits

#### Introduction/What is the Study of TESOL?

Completion of the 27 credit sequence of courses results in a certificate of achievement in TESOL awarded by the TESOL program at the university. This certificate can be used both domestically and internationally as evidence of in-depth training in Teaching English to Speakers of Other Languages (TESOL). TESOL students must successfully complete TESOL track coursework with a minimum GPA of 2.7, demonstrate study of another culture (gained through experience, or the minimum of 3 credits of approved course work) and the equivalent of one year of college-level foreign language study.

#### Why Consider a Certificate of Achievement in TESOL?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

**Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- TESL 401 - Introduction to English Linguistics for TESOL
- TESL 404 - Understanding English Grammar for TESOL
- TESL 405 - Methods for Teaching English Grammar
- TESL 410 - Second Language Acquisition Theory for TESOL
- TESL 420 - Methods and Materials for Basic Communication
- TESL 421 - Methods and Materials for Academic Language Proficiency
- TESL 432 - Seminar in TESOL
- TESL 435 - Practicum in TESOL

**State Issued Certificate Preparation (Non-Degree)****Elementary Education Professional Program**

Department of Elementary Education, Woodring College of Education

**103-104 credits****Introduction/What is the Study of Elementary Education?**

Students seeking a bachelor's degree with teacher certification and an endorsement in elementary education must complete the GURs, an approved academic major, and the professional education course work listed below.

**Why Consider an Elementary Education Professional Program?**

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):****Grade Requirements**

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

## Requirements

Professional Studies Core: 25 credits



## ELEMENTARY EDUCATION

- ELED 301 - Educational Psychology I: Development and Individual Differences
- ELED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ELED 310 - Education, Culture, and Equity
- ELED 370 - Introduction to Teaching
- I T 344 - Basic Instructional Technology Skills
- I T 442 - Classroom Use of Instructional Technology (Elementary)
- SPED 364 - Teaching Each Student

Elementary Program — Methods, Curriculum Content, and Field Experiences: 81-82 credits

One course from:

- ART 398 - Integrated Arts for Elementary Educators
- DNC 398 - Integrated Arts for Elementary Educators
- MUS 398 - Integrated Arts for Elementary Educators
- THTR 398 - Integrated Arts for Elementary Educators

One course from:

- ART 380 - Art Educating the Child
- DNC 433 - Creative Movement for Educators With Lab
- MUS 361 - Music for Elementary Teachers
- THTR 350 - Theatre for Youth
- THTR 351 - Creative Pedagogy
- ELED 425 - Social Studies for the Elementary School
- ELED 470 - Developing Teaching
- ELED 471 - Documenting Teaching
- ELED 480 - Literacy: Beginning Communicators
- ELED 481 - Literacy: Fluent Communicators
- ELED 491 - September Experience
- ELED 492 - Practicum: Experience in Literacy Methods
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MATH 491 - Internship Seminar - Teaching K-8 Mathematics
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science

### **Elementary Education Professional Program - Outreach Program**

Department of Elementary Education, Woodring College of Education

#### **99 credits**

#### **Introduction/What is the Study of Elementary Education?**

Students who have completed a bachelor's degree in an approved academic major and are seeking teacher certification with an endorsement in elementary education through Teacher Education Outreach Programs should complete the Elementary Education Professional Program - Outreach Program requirements. Program coursework listed below includes some special education content and is delivered through a cohort-based integrated model designed specifically for outreach program sites.

## Contact Information

**Assistant Dean**

Larry Antil  
 Miller Hall 256B  
 360-650-7505  
 Larry.Antil@wwu.edu

**Program Manager**

Linda Luttrell  
 Miller Hall 256C  
 360-650-6148  
 Linda.Luttrell@wwu.edu

**How to Declare (Admission and Declaration Process):**

Before students may begin taking courses in education, they must be admitted to both Western Washington University and Teacher Education Outreach Programs. Admission to our programs occurs once a year in the fall. Program admission requirements include:

- Bachelor of Arts or Science in an approved academic major (see below)
- Minimum grade point average of 2.75 overall or for the most recent 45 quarter credit hours
- State minimum scores on the Washington Educator Skills Test Basic (WEST-B). This test is offered 6 times a year at various sites in the state. Visit the WEST-B website at <http://www.west.nesinc.com> for more information.
- English composition course, completed with a B- or better
- Three letters of recommendation
- Reflective essay

For more details about program admission, please see the Frequently Asked Questions page at <http://www.wce.wwu.edu/depts/teop>.

Enrollment restrictions apply in all teacher education programs. Meeting the above criteria makes the applicant eligible for admission, but does not guarantee admission. Students who meet all criteria are further evaluated by the department to determine the most qualified applicants. Retention in the program requires continuous demonstration of competence in standard oral and written English in all coursework. Retention also requires maintenance of a 2.75 quarterly GPA for each quarter after admission. The State of Washington requires students to earn a "C" or better in all major endorsement and most education courses.

**Advisement**

Prospective elementary education students are invited to meet with an advisor for more information about the program (see above for site contacts). At all TEOP sites, the student advisor is the Academic Program Director. Students will be assisted and monitored by their advisors and their program coordinator on a regular basis throughout their program.

**Grade Requirements**

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

## Requirements

- ART 380 - Art Educating the Child
- SPED 301 - Educational Psychology I: Development and Individual Differences
- SPED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ELED 310 - Education, Culture, and Equity
- ELED 372 - Introduction to Teaching Seminar
- ELED 373 - Introduction to Teaching - Practicum
- ELED 380 - Literacy I: Foundations
- ELED 426 - Social Studies Methods
- ELED 472 - Developing Teaching Seminar

## ELEMENTARY EDUCATION

- ELED 473 - Developing Teaching - Practicum
- ELED 474 - Documenting Teaching Seminar
- ELED 475 - Documenting Teaching - Practicum
- ELED 478 - Literacy: Fluent Communicators Seminar
- ELED 479 - Literacy: Fluent Communicators - Practicum
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- I T 344 - Basic Instructional Technology Skills
- I T 442 - Classroom Use of Instructional Technology (Elementary)
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MUS 361 - Music for Elementary Teachers
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science
- SPED 360 - Introduction to Special Education
- SPED 440 - School Practicum
- SPED 467 - Curriculum-Based Evaluation

## Early Childhood Education Courses

### **ECE 380 - Foundations of Literacy for Early Childhood Education**

Examines research-based literacy development for children, pre-Kindergarten through grade three. Topics include theoretical perspectives on literacy development; influence of language and culture on literature development; and research-based literacy instruction and materials. Emphasis on assessment of early literacy development.

**Prerequisites & Notes:** Admission to Woodring College of Education or permission of instructor  
Credits: 4

### **ECE 390 - Infant and Toddler Practicum and Seminar**

Child development theories, learning principles and processes for infants and toddlers. Includes observations in early childhood settings to document actions of infants/toddlers to understand how and what children learn. Weekly seminar and practicum.

**Prerequisites & Notes:** Admission to Woodring College of Education or instructor permission

Credits: 4

### **ECE 391 - Preschool Practicum and Seminar**

Child development for the ages of three years to eight years. Theories, learning principles and processes for children three to eight years. Includes observations in early childhood settings to document children's actions and words to understand how and what children learn. Weekly seminar and practicum.

**Prerequisites & Notes:** Admission to Woodring College of Education or instructor permission  
Credits: 4

### **ECE 430 - Creativity & Play in ECE**

Developing the skills and techniques for working with children in the arts. Includes visual art, music, drama, and dance/movement. Emphasis on cognitive and literacy development in the context of play.

**Prerequisites & Notes:** ECE 434 or Permission of Instructor  
Credits: 4

**ECE 431 - Fundamentals of Early Childhood Education**

Introduction to the field of early childhood education. Includes historical perspectives, philosophical bases, major theories, professional ethics, developmentally appropriate practices, curricular approaches, types of early childhood settings, role of the teacher and educational issues.

**Prerequisites & Notes:** Admission to Woodring College of Education or instructor permission  
Credits: 4

**ECE 432 - Social Studies for Early Childhood Education**

Content, skills, and techniques for teaching social studies in preschool through grade 3. Includes study of integrated curriculum, curriculum unit design.

**Prerequisites & Notes:** ECE 430 or Permission of Instructor  
Credits: 4

**ECE 434 - Environments for Early Learning**

Elements important to the design of learning environments for young children. Covers the principles that transform space into engaging learning environments. Includes work in early childhood classroom settings to integrate current theory, principles, and early childhood education practices.

**Prerequisites & Notes:** ECE 390 or ECE 391 or Permission of Instructor  
Credits: 4

**ECE 435 - Child Abuse and Neglect**

Examines multiple issues related to the identification and reporting of young children where abuse and neglect are suspected. Study of child maltreatment, family dynamics and preventive strategies for child, family and community. Examination of ecological perspective and a risk/resilience framework.

**Prerequisites & Notes:** Admission to Woodring College of Education or instructor permission  
Credits: 4

**ECE 436 - Child Guidance: Principles and Practices**

This course will examine the theories, principles and practices for developmentally and culturally appropriate guidance for young children. Emphasis is placed on guidance strategies and intervention to facilitate young children's autonomy and self-discipline while promoting development of self-concept, identity and pro-social behaviors and relationships. Effect of adult-child interaction on child guidance, development and learning will be examined.

**Prerequisites & Notes:** ECE 390  
Credits: 3

**ECE 438 - Family and Community Relationships**

Examines the importance of family partnerships in a variety of early childhood education programs and describes family-centered principles and approaches. Emphasis on the role of families in educational programs, diversity in families, family systems, communication with families, community resources, and conferencing with families.

**Prerequisites & Notes:** Admission to Woodring College of Education or instructor permission  
Credits: 4

**ECE 439 - Curriculum Planning in Early Childhood Education**

Approaches for planning integrated and meaningful curriculum in early childhood programs, PreK-primary.

**Prerequisites & Notes:** ECE 432; Corequisite ECE 495; or Permission of Instructor  
Credits: 4

**ECE 495 - Internship - Preschool**

Supervised teaching experience to develop and demonstrate teaching competence at the preschool level. S/U grading.

**Prerequisites & Notes:** Recommendation for supervised teaching  
Credits: 6  
Grade Mode: S/U

**ECE 496 - Internship - Primary**

## ELEMENTARY EDUCATION

Supervised teaching experience to develop and demonstrate teaching competence at the primary level. S/U grading.

**Prerequisites & Notes:** Recommendation for supervised teaching

Credits: 10

Grade Mode: S/U

### **ECE 498 - Seminar in Early Childhood Education**

Seminar synthesizes the internship experience by providing a forum for discussion of internship objectives and topics. Repeatable once for credit. Must be taken with both ECE 495 and ECE 496. S/U grading.

**Prerequisites & Notes:** Corequisite ECE 495 or ECE 496

Credits: 2

Grade Mode: S/U

## **Elementary Education Courses**

### **ELED 301 - Educational Psychology I: Development and Individual Differences**

Principles of human development and individual differences as they relate to both academic and non-academic functioning. Emphasis on implications for P-12 classrooms.

**Prerequisites & Notes:** Admission to Woodring College of Education or permission of instructor. Credits: 4

### **ELED 302 - Educational Psychology II: Motivation, Learning and Assessment**

Principles of human motivation and learning and their implications for P-12 classrooms; basic statistical and applied concepts used in assessment of student performance.

**Prerequisites & Notes:** EDUC 301 or ELED 301. Credits: 4

### **ELED 310 - Education, Culture, and Equity**

Issues of culture and social justice as they impact education, schools, and teaching. Includes a service learning component.

**Prerequisites & Notes:** Admission to Woodring College of Education, or permission of instructor or department chair.

Credits: 4

### **ELED 370 - Introduction to Teaching**

Exploring theoretical and practical approaches to culturally responsive teaching and planning for instruction which engages diverse students in substantive, worthwhile learning. Includes practicum experiences in an elementary or middle school classroom.

**Prerequisites & Notes:** Admission to Elementary Education; coreq ELED 380 & IT 444A

Credits: 5

### **ELED 372 - Introduction to Teaching Seminar**

Exploring theoretical and practical approaches to culturally responsive teaching and planning for instruction which engages diverse students in substantive, worthwhile learning. Not open to students who have received credit for ELED 370.

**Prerequisites & Notes:** Admission to Woodring College's Elementary Teacher Outreach Programs. Co-requisite: ELED 373

Credits: 4

### **ELED 373 - Introduction to Teaching - Practicum**

Practicum experiences in an elementary or middle school classroom related to the content of ELED 372. Not open to students who have received credit for ELED 370. S/U grading.

**Prerequisites & Notes:** Admission to Woodring College's Elementary Teacher Education Outreach Programs. Co-Req: ELED 372

Credits: 1

Grade Mode: S/U

### **ELED 380 - Literacy I: Foundations**

Terminology and concept development of the language of literacy; introduction to assessment, curriculum, and instruction of literacy teaching and learning.

**Prerequisites & Notes:** coreq: ELED 370, IT 444A

Credits: 4

**ELED 386 - Practical Assessment in the Elementary Classroom I**

Develop skills in using assessment methodology to enhance teaching. Topics include assessment models, basic premises, the value of sound assessment procedures, and an examination of the thought processes of educational evaluation.

**Prerequisites & Notes:** Admission to Woodring College Elementary Teacher Education Outreach Programs.

Credits: 2

**ELED 387 - Practical Assessment in the Elementary Classroom II**

Refine skills in using assessment methodology to enhance teaching. Topics include application of assessment models and analysis of student performance using sound assessment procedures.

**Prerequisites & Notes:** Admission to Woodring College Elementary Teacher Education Outreach Programs; ELED 386.

Credits: 2

**ELED 390 - Early Childhood Practicum and Seminar**

Observation, participation and related seminars in pre-kindergarten (infant, toddler, and/or preschool) sites. S/U grading

**Prerequisites & Notes:** Permission of Instructor.

Credits: 3

Grade Mode: S/U

**ELED 401 - Writing Instruction in the Elementary Classroom**

Focus on writing development and processes. Methods for assessment and instruction for writing in the elementary school.

**Prerequisites & Notes:** Admission to Elementary Education Department or instructor permission.

Credits: 5

**ELED 405 - Culturally Relevant Materials for Diverse Learners**

This course focuses on P-12 educators' development of a critical eye when selecting and

evaluating culturally relevant materials, including media and technology resources. The course includes a wide reading of culturally relevant resources, guidance in the selection and analysis of such materials, and instruction in how to use them in innovative ways. Correlation to current state and national standards is included.

Credits: 4

**ELED 407 - Books and Materials for Young Adults**

Reading and uses of books for adolescents and their curriculum; multicultural and self-concept literature; realistic and mystical fiction and poetry; literary analysis.

Credits: 4

**ELED 424 - Language Arts in the Elementary Curriculum**

Functions and programs of language arts in the curriculum including reading, writing, speaking, listening.

**Prerequisites & Notes:** SPED 420

Credits: 4

**ELED 425 - Social Studies for the Elementary School**

Social studies methods, resources, multicultural literature, curriculum, objectives, planning and exposure to contributions of social sciences. Includes practicum experiences in an elementary or middle school classroom.

**Prerequisites & Notes:** ELED 370, ELED 481, and SCED 490; or permission of instructor.

Credits: 5

**ELED 426 - Social Studies Methods**

Social studies methods, resources, multicultural literature, curriculum, objectives, planning and exposure to contributions of social sciences. No practicum experience is included in this course.

**Prerequisites & Notes:** SPED 420

Credits: 4

**ELED 435 - Child Abuse and Neglect**

## ELEMENTARY EDUCATION

Development of skills for working with children from abusive or neglectful home environments. Content deals with helping educators help children increase their self esteem and cope with their environments.

Credits: 3

### **ELED 438 - School-Home-Community Relationships**

Problems of communication and interaction among teachers, parents, and paraprofessionals, administrators, and community; conferencing, planning meetings, community survey. PR publications, use of mass media.

Credits: 1-3

### **ELED 456 - Literacy Assessment**

Explores classroom-based literacy assessment, with a focus on reading, writing, and oral language; includes 20 hour practicum.

**Prerequisites & Notes:** ELED 480 and ELED 481 or permission of instructor.

Credits: 4

### **ELED 464 - Multicultural Education for Teachers**

Preparation for teaching in a multicultural society. Participants will learn how to design a curriculum that reflects diversity and an instructional methodology that promotes the learning of diverse students. Also offered as AMST 464.

Credits: 4

### **ELED 470 - Developing Teaching**

Strengthening teaching understandings, skills, and dispositions with an emphasis on learners and learning in classroom contexts, subject matter knowledge and pedagogy, and developing and sustaining a productive and inclusive classroom culture and organization. Includes practicum experiences in an elementary or middle school classroom.

**Prerequisites & Notes:** ELED 370, ELED 481, SCED 490; or permission of instructor.

Credits: 5

### **ELED 471 - Documenting Teaching**

Capstone experience for the preparation of a Teacher Performance Assessment documenting the candidate's ability to design and implement standards-based instruction, assess student learning and reflect on the teaching and learning process. Includes practicum experience in an elementary or middle school classroom and participation in a collegial learning community.

**Prerequisites & Notes:** ELED 470

Credits: 5

Grade Mode: S/U

### **ELED 472 - Developing Teaching Seminar**

Strengthening teaching understandings, skills, and dispositions with an emphasis on learners and learning in classroom contexts, subject matter knowledge and pedagogy, and developing and sustaining a productive and inclusive classroom culture and organization. Not open to students who have received credit for ELED 470.

**Prerequisites & Notes:** Admission to Woodring College's Teacher Education Outreach Programs; ELED 372 and ELED 373; Co-requisite: ELED 473  
Credits: 3

### **ELED 473 - Developing Teaching - Practicum**

Practicum experiences in an elementary or middle school classroom related to the content of ELED 472. Not open to students who have received credit for ELED 470. S/U grading.

**Prerequisites & Notes:** Admission to Woodring College's Teacher Education Outreach Programs; ELED 372 and ELED 373; Co-requisite: ELED 472.  
Credits: 2

Grade Mode: S/U

### **ELED 474 - Documenting Teaching Seminar**

Capstone experience for the preparation of a final electronic portfolio documenting experiences in learning to teach and the ability to impact elementary student growth and learning. Not open to students who have received credit for ELED 471.

**Prerequisites & Notes:** Admission to Woodring College's Teacher Education Outreach Programs; Completion of ELED 472 and ELED 473; and Co-requisite: ELED 475

Credits: 3

**ELED 475 - Documenting Teaching - Practicum**

Practicum experiences in an elementary or middle school classroom related to the content of ELED 474 and participation in a collegial learning community. Not open to students who have received credit for ELED 471. S/U grading.

**Prerequisites & Notes:** Admission to Woodring College's Teacher Education Outreach Programs; ELED 472 and 473; Co-requisite: ELED 474.  
Credits: 2  
Grade Mode: S/U

**ELED 478 - Literacy: Fluent Communicators Seminar**

Understanding the components and structure of a comprehensive literacy program for addressing reading, writing, listening, and speaking in the elementary classroom, with a particular focus on developing and supporting fluent communicators. Not open to students who have received credit for ELED 481.

**Prerequisites & Notes:** Admission to Woodring College's Teacher Education Outreach Programs; ELED 380; Co-requisite: ELED 479.  
Credits: 4

**ELED 479 - Literacy: Fluent Communicators - Practicum**

Practicum experiences in an elementary or middle school classroom related to the content of ELED 478. Not open to students who have received credit for ELED 481. S/U grading.

**Prerequisites & Notes:** Admission to Woodring College Elementary Teacher Outreach Programs; ELED 380. Co-requisite: ELED 478.  
Credits: 2  
Grade Mode: S/U

**ELED 480 - Literacy: Beginning Communicators**

Application of theoretical and research-based concepts of literacy. Teaching and learning of emergent/beginning communicators in a pluralistic society. Includes practicum experiences in an elementary or middle school classroom.

**Prerequisites & Notes:** ELED 370 or ECE 391 for ECE majors, or ENG 370 for English-Elementary major; English-Elementary major must take pre/co-requisites ENG 440, ENG 441  
Credits: 5

**ELED 481 - Literacy: Fluent Communicators**

Understanding the components and structure of a comprehensive literacy program for addressing reading, writing, listening, and speaking in the elementary classroom, with a particular focus on developing and supporting fluent communicators. Includes practicum experiences in an elementary or middle school classroom.

**Prerequisites & Notes:** ELED 480; co-requisite IT 442.  
Credits: 5

**ELED 483 - Literacy Workshop: Reading, Writing, and Language Learners**

Students will deepen and apply knowledge of literacy learning by developing and teaching theoretically-sound and research-based instructional strategies and units of study appropriate for a multilingual "mainstream" learning environment.

**Prerequisites & Notes:** ELED 480 and TESL 420; Co-req TESL 421.  
Credits: 2

**ELED 485 - Basic Reading Instruction**

Basic reading instruction in grades K-8; methods and materials for teaching reading, reading readiness; word attack skills, word reading skills, comprehension skills; grouping; lesson planning.

**Prerequisites & Notes:** ELED 320  
Credits: 3-4

**ELED 486 - Literacy Difficulties in the K-12 Classroom**

Analysis, correction and prevention of literacy difficulties in K-12 classrooms; refinement of group and informal assessment; supervised practicum with pupils having mild difficulties in reading, writing, and/or oral language.

**Prerequisites & Notes:** Permission of instructor.



# ELEMENTARY EDUCATION

Credits: 4

## **ELED 488 - Individualized Reading Instruction**

Principles and practices of individualized reading with emphasis on problems in organizing classroom programs for meeting individual interests and needs.

Credits: 1-5

## **ELED 489 - Language Structure and Reading Development**

Examines the structure of language and its development in children with consideration of how this structure and development are critical to effective reading instruction.

Credits: 4

## **ELED 490 - Teaching Laboratory**

Diagnosis of students, lesson preparation, videotaped peer teaching, analysis of teaching, lesson redesign. Repeatable up to 8 credits, including original course.

**Prerequisites & Notes:** ELED 472 or ELED 470.

Credits: 1-4

Grade Mode: S/U

## **ELED 490A - September Experience**

Observation and participation in the opening of school. S/U grading.

**Prerequisites & Notes:** department permission

Credits: 2 TO 3

Grade Mode: S/U

## **ELED 491 - September Experience**

Observation and participation in the opening of school. S/U grading.

**Prerequisites & Notes:** Department permission.

Credits: 2-3

Grade Mode: S/U

## **ELED 492 - Practicum: Experience in Literacy Methods**

In-school experience observing and teaching reading and language arts. S/U grading.

**Prerequisites & Notes:** ELED 480 and 481.

Credits: 4

Grade Mode: S/U

## **ELED 494 - Internship - Elementary**

Supervised teaching experience to develop and demonstrate teaching competence at the primary and/or intermediate grades. Repeatable to 24 cr. S/U grading.

**Prerequisites & Notes:** recommended for supervised teaching

Credits: 2-18

Grade Mode: S/U

## **ELED 495 - Internship - Early Childhood Education**

Observation and participation in the opening of school. S/U grading.

**Prerequisites & Notes:** Department permission.

Credits: 2-24

Grade Mode: S/U

## **ELED 496 - Elementary Intern Study Group**

Support school internship experience and students' efforts to engage in ambitious teaching practices that support diverse learners.

**Prerequisites & Notes:** ELED 470

Credits: 1-2

Grade Mode: S/U

## **ELED 505 - Books and Materials: Use and Evaluation**

Study and selection of children's and adolescent literature (fiction and poetry). Literary criticism. Use of various media.

**Prerequisites & Notes:** ELED 405 or permission

Credits: 4

## **ELED 518 - Current Issues in Education**

Examination and discussion of several current issues in Elementary Education. Repeatable to a maximum of 5 credits.

**Prerequisites & Notes:** Graduate status or permission of instructor.

Credits: 1-5

**ELED 521 - Seminar in Elementary Curriculum**

Advanced study of curriculum planning and development, including design, materials and problems in curriculum change. Independent research is expected.

**Prerequisites & Notes:** completion of teaching certification requirement; elementary K-8 teaching endorsement  
Credits: 4

**ELED 530 - Play and the Child**

Examination of the nature and role of play in the cognitive, affective, physical and social development of the child. Attention given to the educative functions of play and implications of those functions for curriculum and instruction.

**Prerequisites & Notes:** graduate standing or teaching experience  
Credits: 4

**ELED 531 - Seminar in Early Childhood Education**

In-depth exploration of programs, theories and significant recent research in early childhood education.

**Prerequisites & Notes:** Permission of instructor  
Credits: 4

**ELED 531A - Advanced Seminar in Early Childhood Education**

Specific problems are drawn from the field and content organized according to student need.

**Prerequisites & Notes:** ELED 531, ELED 596A  
Credits: 4

**ELED 533 - Advanced Seminar in Elementary Education**

Advanced study of individual research topics in elementary education.

**Prerequisites & Notes:** advancement to candidacy  
Credits: 4

**ELED 535 - Research Analysis of Current Issues in Elementary Education**

Examination and analysis of research underlying current issues and problems in elementary education.

**Prerequisites & Notes:** completion of teaching certification requirement; elementary K-8 teaching endorsement; EDU 501  
Credits: 4

**ELED 538 - Current Issues in Assessment and Evaluation in Elementary Literacy Education**

Examines current theory, research, and practice in classroom-based literacy assessment and evaluation; includes supervised practicum.

**Prerequisites & Notes:** ELED 480 and ELED 481 or instructor permission  
Credits: 4

**ELED 539 - Master's Seminar**

Preparation and presentation of a seminar paper on a problem or issue in education.

**Prerequisites & Notes:** completion of teaching certification requirements; elementary K-8 endorsement; advancement to candidacy; ELED 501, ELED 521, ELED 535; EDF 512, EDF 513  
Credits: 4

**ELED 555 - Middle School Curriculum Designs and Instructional Strategies**

Current trends in middle-level education; includes a review of developing curriculum ideas endorsed by the National Middle School Association. Physical, social and emotional growth of early adolescents; instructional strategies for middle-level schools; requires topical or action research project.

Credits: 4

**ELED 569A - Issues in Inclusive Early Education**

Current issues and best practices in early childhood program design and implementation. Emphasis on family-centered, play-based interagency models that serve children of all abilities. Applied research focus.

**Prerequisites & Notes:** admission to graduate school or instructor permission

## ELEMENTARY EDUCATION

Credits: 3

### **ELED 569B - Assessment of Young Children (Birth-8 Years)**

Issues and resources for accurate and appropriate assessment of young children. Current best practices in instructionally relevant assessment, monitoring child progress and evaluating overall program success. Alternative strategies for assessing the very young child, family needs and special populations. Emphasis on critical evaluation of instruments, psychometric adequacy and technical aspects of test development.

**Prerequisites & Notes:** admission to graduate school or instructor permission  
Credits: 4

### **ELED 569C - Inclusive Curriculum in Early Childhood**

Curriculum development and adaptation for infants, toddlers, and preschool children. Includes available resources, best practices with the developmentally young and play-based criteria. Focus on model program curricular approaches, the use of daily routines and parent-child interaction as a context and content for curriculum, and peer-mediated learning strategies. Emphasis on efficacy research and the impact of various curricular models.

**Prerequisites & Notes:** admission to graduate school or instructor permission  
Credits: 3

### **ELED 583 - Literacy and Children's Literature**

Teaching basic reading skills through the use of children's books; selection and analysis of children's books in order to teach literacy, from beginning or pre-word recognition levels through junior/senior high level.

**Prerequisites & Notes:** teaching experience  
Credits: 4

### **ELED 584 - Teaching the Integrated Language Arts**

Teaching activities designed to foster continuing development of literacy, in part, through stressing interrelationships between the various forms of language.

**Prerequisites & Notes:** graduate standing or teaching experience  
Credits: 4

### **ELED 585 - Seminar in Literacy Education**

Literacy education research and its application to classroom practices, to individual problems in the teaching of reading, to supervision and administration of reading programs.

**Prerequisites & Notes:** Permission of instructor  
Credits: 3-4

### **ELED 586 - Seminar for Literacy Specialists**

Summary course in the Masters in Literacy, focuses on the role of the future literacy specialist in the analysis, correction, and prevention of literacy difficulties. Designed to refine the teacher leader's knowledge of assessment, evaluation, planning, and teaching of readers, writers, and language users. Includes a 20 hour practicum.

**Prerequisites & Notes:** ELED 518 or permission of instructor.  
Credits: 5

### **ELED 587 - Improvement of Instruction in Literacy**

Teaching developmental reading; methods, materials, theory.

**Prerequisites & Notes:** minimum of one previous course in teaching of reading or teaching experience  
Credits: 4

### **ELED 589 - Language Acquisition and Literacy Development**

Exploration of current theories in language acquisition, linguistics and psycholinguistics, and implications for early childhood education and literacy instruction.

**Prerequisites & Notes:** graduate standing or teaching experience  
Credits: 4

### **ELED 594E - Practicum in Reading Diagnosis and Remediation**

Assessment and correction of reading difficulties: supervised practica in use of diagnostic reading tests.

**Prerequisites & Notes:** Graduate status or permission of instructor.

Credits: 4

**ELED 594F - Practicum in Reading Diagnosis and Remediation**

Remedial instruction of children with reading problems: clinical practicum.

**Prerequisites & Notes:** Graduate status or permission of instructor.

Credits: 4

**ELED 690 - Thesis**

Research study under the direction of a faculty committee. Repeatable to a maximum of 9 cr. S/U grading

**Prerequisites & Notes:** advancement to candidacy; student's graduate committee approval  
Credits: 1-9

Grade Mode: S/U

**ELED 691 - Research Seminar**

Graduate research under the direction of a program advisor/committee. Repeatable to a maximum of 6 cr. S/U grading.

**Prerequisites & Notes:** student's graduate committee/program advisor approval

Credits: 1-6

Grade Mode: S/U

## English Language Learners Courses

**ELL 431 - Second Language Acquisition Theory and Policy for P-12 Teachers**

Provides a historical, legal, theoretical and policy foundation to understand experiences of Bilingual students in US public schools. Examines sociocultural and equity issues related to the education of language minority students from global to local contexts. Explores theory and research on second language acquisition and learning drawn from sociocultural, linguistic,

psychological, neurological, and sociolinguistic traditions that inform current practice. Course presents research on program models and effective school practices with English language learners. Students will become familiar with language development standards across domains of reading, writing, listening and speaking as these interact with content standards across program models and instructional approaches.

**Prerequisites & Notes:** Admission to ELL Endorsement Program or permission of Program Director.

Credits: 4

**ELL 432 - Introduction to English Linguistics for P-12 Teachers**

Students are introduced to the structure, history and use of English with emphasis on their application to the teaching of P-12 level language learners within the P-12 school system. Includes an outline of basic linguistic aspects of language (phonology, morphology, syntax, semantics, and pragmatics) and their historical, geographical, and social variation. The theory of English grammar, including parts of speech, syntactic structure, coordination, subordination, and discourse patterns will also be covered.

**Prerequisites & Notes:** ELL 431 or permission of Program Director.

Credits: 5

**ELL 433 - Understanding Bilingual Learners in a Sociocultural Context**

Provides a foundation for teachers to understand and address the relevant cultural and equity issues that linguistically diverse students face in US public schools. Emphasis is on culturally and linguistically sustaining approaches to instruction, assessment, professional collaboration, and partnerships with families and communities to benefit students. Specific attention is given to culturally relevant teaching, equity pedagogy and differentiated instruction for ELL. Course provides an introduction to assessment from theory to practice for linguistically diverse students. A service learning experience allows teacher candidates to develop abilities to observe, reflect and employ informal assessments to better understand and support the learning and development of an English Learner.

## ELEMENTARY EDUCATION

**Prerequisites & Notes:** ELL 431 and ELL 432 or permission of instructor.  
Credits: 4

### **ELL 434 - Methods And Materials For Teaching Beginning ELLs in Grades P-12**

Theoretical and practical concerns in teaching English as a second language to students with beginning to low-intermediate proficiency in English in P-12 schools. Emphasis on innovative approaches to the teaching of listening, speaking, reading, writing, and culture within a communicative framework. Guidance in the evaluation of students; use of standards; development and use of creative materials, including media-based materials. Required participation in embedded practicum with English language learners with demonstration and practice in instructing students in English evaluation, development, and use of creative materials, including media-based materials and state requirements.

**Prerequisites & Notes:** ELL 433  
Credits: 5

### **ELL 435 - Methods and Materials for Academic Language Proficiency in Grades P-12**

An expansion on theoretical and practical concerns in teaching English as an additional language to students in grades P-12 with intermediate to advanced proficiency in English. Emphasis is on innovative approaches to the teaching of language and literacy within a communicative framework and academic register. Provides guidance in the evaluation, development, and use of creative materials, including media-based materials. Requires participation in an embedded practicum experience with English language learners.

**Prerequisites & Notes:** ELL 434 of permission of Program Director.  
Credits: 5

### **ELL 436 - Seminar and Practicum for ELL or Bilingual P-12 Teachers**

Provides a forum for reflection and sharing of the teaching of ELL's in P-12 schools. Includes research-based lesson planning and advocacy, linking to WA state and Federal laws. Provides practice working collaboratively with colleagues

and the community. Bilingual option includes supervised bilingual teaching in English and second language of instruction in P- 12 bilingual program for 5 credits. S/U grading.

**Prerequisites & Notes:** Completion of all required ELL/Bilingual courses. Permission of Program Director.  
Credits: 4-5  
Grade Mode: S/U

### **ELL 438 - Methods and Programming for P-12 Bilingual Classrooms**

Participants extend their knowledge of second language acquisition, instructional methods, and assessment techniques to effectively teach bilingual models of instruction in P-12 schools. Course content includes further development of the concepts of bilingualism and biculturalism, and leads into a focus on the development and assessment of bi-literacy and content area instruction with culturally and linguistically diverse students. Includes embedded or arranged practicum.

**Prerequisites & Notes:** ELL 435 or permission of Program Director.  
Credits: 5

## **Instructional Technology Courses**

### **I T 344 - Basic Instructional Technology Skills**

Allows the student to prepare a portfolio that demonstrates the instructional technology skills which are required for admission to IT 442, 443 or 444. S/U grading.

Credits: 1  
Grade Mode: S/U

### **I T 442 - Classroom Use of Instructional Technology (Elementary)**

Develop the skills and knowledge necessary to effectively integrate technologies for teaching and learning into professional teaching practices, including planning, assessment, instruction and classroom management. Course may include a practicum for application of learning.

**Prerequisites & Notes:** IT 344 or portfolio of basic instructional technology skills; co-requisite ELED 481.

Credits: 3

**I T 443 - Classroom Use of Instructional Technology (Special Education)**

Examines the use of instructional technology, including using the computer as teacher, student, partner (tool) and aide. Successful completion satisfies the Woodring College of Education instructional technology education competency requirement.

**Prerequisites & Notes:** IT 344 or portfolio of basic instructional technology skills

Credits: 3

**I T 444 - Classroom Use of Instructional Technology (Secondary)**

Examines the use of instructional technology, including using the computer as teacher, student, partner (tool) and aide. Successful completion satisfies the Woodring College of Education instructional technology education competency requirement.

**Prerequisites & Notes:** IT 344 or portfolio of basic instructional technology skills

Credits: 3

**I T 458 - Instructional Design**

Introduction to the process of instructional design. Topics include task analysis, competency specification, instructional strategies, media selection, user interface, rapid prototyping, formative evaluation and project management.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444; or permission of instructor.

Credits: 4

**I T 459 - Distance Education: Theory and Practice**

Examines the concepts, technologies and issues related to the design, development, delivery, policy-making and evaluation of distance education courses and programs. Course includes online learning environment development.

**Prerequisites & Notes:** IT 442 or IT 443 or IT

444; IT 458; or permission of instructor.

Credits: 4

**I T 461 - Multimedia Tools and Applications**

An overview of the tools required for the creation of interactive multimedia. The tools are organized into three categories: authoring systems, hypermedia authoring environments, and media production (such as graphics production, video and sound).

**Prerequisites & Notes:** IT 442, IT 443, IT 444; or permission of instructor.

Credits: 3

**I T 463 - Techniques and Tools in Graphic Design**

Principle, techniques and tools used in the creation and manipulation of digital graphic elements and products. Topics include elements of design and photography, application of artistic concepts, issues related to graphic representation, and modes of delivery with an emphasis on web-based development.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444; IT 458 and IT 459; or permission of instructor.

Credits: 4

**I T 465 - Development of Web-Based Learning Environments**

Design and develop web-based instruction and materials; study various forms of web-based instruction with emphasis on online learning technologies. Integrates appropriate methods, curricular resources, assessments, and Internet delivery systems.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444; IT 458 and IT 459; or permission of instructor.

Credits: 4

**I T 466 - Authoring for Multimedia Development**

Techniques and procedures for authoring when developing multimedia. Scripting required in implementation of concepts.

**Prerequisites & Notes:** IT 461 or permission of

## ELEMENTARY EDUCATION

instructor.

Credits: 3

### **I T 467 - Creating Modules for Electronic Delivery**

Design and develop technology-enhanced interactive learning objects for teaching and training. Focus on using multimedia and instructional design for online learning. Students explore concepts and findings identified in the multimedia and distance educational literature.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444; IT 458 and IT 459; or permission of instructor.

Credits: 4

### **I T 468 - Interactive Multimedia Systems**

An introductory study of interactive multimedia systems. Includes videodiscs, computer interfacing, CD ROM and multimedia authoring software.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444; or permission of instructor.

Credits: 3

### **I T 470 - The Internet in Education**

Studies the use of the Internet and the World Wide Web in educational settings, including strategies for effective student and teacher use. Topics include e-mail, Web browsing, videoconferencing, implementation, ethics and issues. Examines alternatives in web development.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444; or permission of instructor.

Credits: 3

### **I T 503 - Designing Instruction and Selecting Technologies for Learning**

Systematic analysis, design, development and evaluation of instructional practices. Class discussions and projects apply instructional design principles in P-12 classrooms and emphasize the appropriate integration of technologies at relevant stages of the learning process.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444 or equivalent; graduate status; EDAD 501; or permission of instructor.

Credits: 4

### **I T 518 - Current Issues in Education**

Examination and discussion of several current and controversial issues in education. Repeatable with no maximum.

**Prerequisites & Notes:** Graduate status or permission of instructor.

Credits: 1-5

### **I T 544 - Instructional Technology and Education**

A study in the use of technological tools for instruction; for teaching, training, and student learning; for presentation and development; and for administration and management. Incorporates distance delivery procedures and effective planning for the use of Instructional Technology. Satisfies the Woodring College of Education instructional technology and education competency requirement. Emphasis on K-12 education.

**Prerequisites & Notes:** Graduate status or permission of instructor.

Credits: 4

### **I T 546 - Instructional Technology and Education - CCE**

A study in the use of technological tools for instruction; for teaching, training, and student learning; for presentation and development; and for administration and management. Incorporates distance delivery procedures and effective planning for the use of instructional technology. Satisfies the Woodring College of Education instructional technology and education competency requirement. Emphasis on the Continuing and College Master's program.

**Prerequisites & Notes:** Admission to the CCE program or permission of instructor.

Credits: 4

### **I T 550 - Technology Leadership: Policies, Planning and Administration**

Problems and principles in establishing and maintaining the use of instructional technologies in educational institutions, including establishing school and district policies for technology, developing budgets, managing resources,

maintaining facilities and technology infrastructure.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444, or equivalent; graduate status; IT 503 and IT 571 and IT 572; or permission of instructor.  
Credits: 4

**I T 551 - Seminar in Instructional Technology**

Analysis of issues affecting present and future implementations of instructional technology.

**Prerequisites & Notes:** 20 credits in the program; permission of instructor.  
Credits: 4

**I T 552 - Instructional Design: Strategies**

Survey of strategies for delivering instruction, including large-scale strategies such as cooperative learning, lectures and technology; and microstrategies such as feedback, advance organizers, teaching procedures and questioning strategies.

**Prerequisites & Notes:** IT 560 or permission of instructor.  
Credits: 3

**I T 558 - Distance Education: Theory and Practice**

Examines the concepts, technologies and issues related to the design, development, delivery, policy-making and evaluation of distance education courses and programs. Course includes development of online learning environments.

**Prerequisites & Notes:** I T 546; I T 560 or permission of instructor.  
Credits: 4

**I T 560 - Instructional Design**

Introduction to the process of instructional design. Topics include task analysis, competency specification, instructional strategies, media selection, user interface, prototyping, formative evaluation and project management.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
Credits: 4

**I T 561 - Designing Computer-Based Instruction**

Addresses the design, development and evaluation of computer-based instructional software. Covers the steps in creating an effective CBI lesson, designing effective displays, use of graphics and illustrations, use of color, analyzing questions, learner control, and storyboarding.

**Prerequisites & Notes:** IT 560; IT 566 or IT 567; or permission of instructor.  
Credits: 3

**I T 563 - Techniques and Tools in Multimedia Development**

Create digital media (e.g., graphics, video, audio); identify properties, strengths and weaknesses of digital media in different learning contexts; analyze its use in a variety of settings including distance delivery.

**Prerequisites & Notes:** IT 544 or IT 546 or equivalent; IT 558 and IT 560; or permission of instructor.  
Credits: 4

**I T 565 - Development of Web-Based Learning Environments**

Design and develop web-based instruction and materials; study of various forms of web-based instruction with emphasis on online learning technologies. Integrates appropriate methods, curricular resources, assessments, and Internet delivery systems.

**Prerequisites & Notes:** IT 544 or 546 or equivalent; IT 558 and IT 560; or permission of instructor.  
Credits: 4

**I T 566 - Authoring for Multimedia Development**

Techniques and procedures for authoring when developing multimedia. Scripting required in implementation of concepts.

**Prerequisites & Notes:** IT 461 or permission of instructor.  
Credits: 3

**I T 567 - Creating Modules for Electronic Delivery**



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Design and develop technology-enhanced interactive learning objects for teaching and training. Focus on using multimedia and instructional design for online learning. Students explore concepts and findings identified in the multimedia and distance education literature.

**Prerequisites & Notes:** IT 544 or IT 546 or equivalent; IT 558 and IT 560; or permission of instructor.  
Credits: 4

### **I T 568 - Advanced Design of Multimedia Instruction**

Advanced issues in the design and development of interactive multimedia instructional lessons. Covers design issues related to the use of multimedia for instruction and is organized around individual student projects. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** IT 566 or IT 567 or permission of instructor.  
Credits: 3-6

### **I T 571 - Implementing Technology-Enhanced Learning Activities**

Implement an instructional plan that integrates appropriate methods, curricular resources, assessments, and technology in a classroom setting; gather data to evaluate the plan's effectiveness. Develop a learning object; do usability testing and analysis. Begin development of an electronic portfolio.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444 or equivalent; graduate status; IT 503; or permission of instructor.  
Credits: 3

### **I T 572 - Advanced Technology Tools and Classroom Applications**

Develop advanced skills in information and communication technologies, assistive technologies, and productive tools. Employ one of these technologies in creating a prototype to be used for research. Develop materials and methods for teaching of software applications.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444 or equivalent; graduate status; IT 503 and IT

571; or permission of instructor.  
Credits: 3

### **I T 573 - Emerging Issues: the Social, Ethical, Legal and Human Implications of Technology**

Consideration of a wide range of human and social issues relating to the use of technology, including equitable access, social and cognitive effects of various technologies, appropriateness of technologies for students with diverse learning needs, gender and cultural bias, copyright, and health concerns.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444 or equivalent; graduate status; IT 503 and IT 571 and IT 572; or permission of instructor.  
Credits: 3

### **I T 574 - Educational Technology Research, Evaluation and Assessment**

Research the effectiveness of technology products and processes, selecting appropriate technology tools for assessment, and evaluating learner and program outcomes.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444 or equivalent; graduate status; IT 503 and IT 571 and IT 572; or permission of instructor.  
Credits: 3

### **I T 575 - Designing, Implementing and Evaluating Professional Development**

Identify research-based models for professional development, implement them effectively in particular settings, and evaluate participant outcomes. Emphasis on diffusion of innovations and facilitating change.

**Prerequisites & Notes:** IT 442 or IT 443 or IT 444 or equivalent; graduate status; IT 503 and IT 571 and IT 572; or permission of instructor.  
Credits: 3

### **I T 640 - Current Topics in Education**

Studies of current topics in learning resources/library science or instructional technology. Repeatable with no maximum.

**Prerequisites & Notes:** Master's degree; permission of instructor.

Credits: 1-5

### **I T 690 - Thesis**

Research study under the direction of a faculty committee. Repeatable to a maximum of 9 credits. S/U grading.

**Prerequisites & Notes:** Advancement to candidacy; graduate committee approval.  
Credits: 1-9  
Grade Mode: S/U

### **I T 691 - Research Seminar**

Repeatable to a maximum of 6 credits. S/U grading.

**Prerequisites & Notes:** Graduate committee or program advisor approval.  
Credits: 1-6  
Grade Mode: S/U

## **Teaching English/Second Language Courses**

### **TESL 401 - Introduction to English Linguistics for TESOL**

Students are introduced to the structure, history and use of English with emphasis on their application to the teaching of ESL. Includes an outline of basic linguistic aspects of language (phonology, syntax, semantics and pragmatics) and their historical, geographical and social variation.

Credits: 4

### **TESL 403 - Applications of Linguistics to TESOL**

A one-credit version of TESOL 401 for students who have successfully completed an equivalent course in introductory linguistics. S/U grading.

**Prerequisites & Notes:** Permission of program director.  
Credits: 1  
Grade Mode: S/U

### **TESL 404 - Understanding English Grammar for TESOL**

Theory of English grammar including parts of speech, syntactic structure, coordination, subordination, and discourse patterns.

**Prerequisites & Notes:** TESL 401 or TESL 403 or permission of instructor.

Credits: 3

### **TESL 405 - Methods for Teaching English Grammar**

Demonstration and practice in explaining key structures in English. Creating and teaching lesson plans with explicit English grammar components. Participation in an embedded practicum with English language learners required. Not eligible for students who have taken TESL 402.

**Prerequisites & Notes:** TESL 401 or TESL 403, or permission of instructor; and TESL 404 or ENG 436, or concurrent.

Credits: 2

### **TESL 410 - Second Language Acquisition Theory for TESOL**

The insights of modern linguistic and psychological theory into the process of second language learning, with special reference to the acquisition of English by speakers of other languages. Emphasis on why certain aspects of English structure pose particular difficulty for the non-native speaker.

**Prerequisites & Notes:** Admission to TESOL program or permission of instructor; TESL 401 recommended.

Credits: 4

### **TESL 412 - Spanish for Educators**

Prepares educators to communicate with Spanish-speaking students and their families through Spanish language study. Guided investigation of Spanish-language academic resources and development of academic language in Spanish in chosen content area to support student learning. Seminar component (in English) undertakes contrastive analysis of the Mexican and US educational systems providing an example of how cultural and socioeconomic factors influence educational opportunities. Repeatable up to 10 credits, including original course.

## ELEMENTARY EDUCATION

Credits: 5

### **TESL 420 - Methods and Materials for Basic Communication**

Theoretical and practical concerns in teaching English as a second language to students with beginning to low-intermediate proficiency in English. Emphasis on innovative approaches to the teaching of listening, speaking, and culture within a communicative framework. Guidance in the evaluation, development, and use of creative materials, including media-based materials. Required participation in embedded practicum with English language learners.

**Prerequisites & Notes:** Admission to TESOL program or permission of instructor; TESL 401 recommended.

Credits: 5

### **TESL 421 - Methods and Materials for Academic Language Proficiency**

An expansion on theoretical and practical concerns in teaching English as a second language to students with intermediate to advanced proficiency in English. Emphasis on innovative approaches to the teaching of literacy within a communicative framework, with particular focus on structure, reading, writing, and culture in academic content areas. Guidance in the evaluation of textbooks and the development and use of creative materials, including media-based materials. Required participation in embedded practicum with English language learners.

**Prerequisites & Notes:** TESL 420 or permission of instructor; TESL 401 recommended.

Credits: 5

### **TESL 425 - Methods and Programming for the Bilingual Classroom**

Participants extend their knowledge of second language acquisition, instructional methods, and assessment techniques to effectively teach within bilingual models of instruction.

**Prerequisites & Notes:** TESL 410 and TESL 421 or instructor permission

Credits: 5

### **TESL 432 - Seminar in TESOL**

Provides a forum for reflection and sharing of the diverse practicum teaching experiences of a co-requisite practicum course. Research resolves current classroom needs in classroom management. Provides practice working collaboratively to deliver professional development to colleagues and the community. Repeatable to a maximum of 4 credits, including original course. S/U grading.

**Prerequisites & Notes:** TESL 404; TESL 405; TESL 420; TESL 421; TESL 410 or concurrent; Co-req TESL 435.

Credits: 2

Grade Mode: S/U

### **TESL 433 - Practicum in TESOL**

Supervised teaching of English language learners in K-12, adult education, or international placements. S/U grading.

**Prerequisites & Notes:** TESL 404, TESL 405, TESL 420 and TESL 421; and TESL 410 or concurrent; and co-requisite TESL 432.

Credits: 2

Grade Mode: S/U

### **TESL 434 - Bilingual Practicum**

Supervised teaching in content-based ESL and teaching content coursework presented in a second language of instruction. K-12, adult education, and international placements available. S/U grading.

**Prerequisites & Notes:** TESL 404, TESL 405, TESL 420, TESL 421; and TESL 410, TESL 425, or concurrent; and co-requisite TESL 432.

Credits: 3

Grade Mode: S/U

### **TESL 435 - Practicum in TESOL**

Supervised TESOL practicum teaching English language learners. International placements available.

**Prerequisites & Notes:** TESL 401 or TESL 403; TESL 405; TESL 420; TESL 421 (or permission of instructor); TESL 410 or concurrent; Co-req TESL 432 (or permission of instructor).

Credits: 2-3

Grade Mode: S/U

# Human Services and Rehabilitation

## Introduction

The Department of Human Services and Rehabilitation is comprised of undergraduate (B.A. and B.S.) programs; a Human Services Bachelor's of Art and RN to Bachelor's of Science in Nursing (RN-BSN); and two graduate (M.A.) programs; Continuing and College Education and Rehabilitation Counseling. Each program is committed to an academic learning experience that integrates theory and practice using a strengths-based model of professional practice. For more information on these programs, please visit [www.wvu.edu/hsr](http://www.wvu.edu/hsr).

## Faculty

**ELIZABETH BOLAND** (2004) Chair and Associate Professor. Academic Program Director of Rehabilitation Counseling. BBA, University of Wisconsin-Whitewater; MS, PhD, University of Wisconsin-Madison.

**JACQUELYN BAKER SENNETT** (2000) Associate Professor. AB, Occidental College; PhD, Cornell University.

**ANNE BLANCHARD** (1997) Senior Instructor, Everett. BA, MEd Western Washington University; PhD, University of Washington.

**SAMIT BORDOLOI** (2013) Assistant Professor. BA, Hindu College; MSW, Tata Institute of Social Sciences; MS, Kansas State University; PhD, University of Connecticut.

**HOPE CORBIN** (2013) Assistant Professor. BA, State University of New York at Plattsburgh; MPhil, PhD, University of Bergen.

**SONDRA CUBAN** (2013) Professor. BA, Sonoma State University; MILS, University of Hawaii-Manoa; PhD, University of Wisconsin-Madison.

**JUDITH DEIRO** (1997) Senior Instructor, Everett. BA, Oklahoma State University; MA, University of Florida; PhD, University of Washington.

**RAINE DOZIER** (2008) Associate Professor. BA State University of New York; MA, PhD, University of Washington.

**STANFORD GOTO** (2004) Associate Professor. BA, MA, PhD, University of California-Berkeley.

**ERIC JOHNSON** (2008) Senior Instructor and Clinical Coordinator. BA, University of Puget Sound; MA, Western Washington University; PhD, University of Wisconsin.

**DIANA JONES** (2008) Associate Professor. BA, Adrian College; MA, Emory University; MTS, Candler School of Theology, Emory University; PhD, Vanderbilt University.

**JOHN KORSMO** (2006) Associate Professor. Academic Program Director of Human Services. BA, Portland State University; MS, PhD, University of Wisconsin Milwaukee.

**TRULA NICHOLAS** (1994) Associate Professor. BA, MS, Western Washington University; EdD, Nova Southeastern University.

**CASEY SHILLAM** (2013) Associate Professor. Academic Program Director of RN-BSN. BA, Portland State University; BSN, MS, PhD, Oregon Health and Science University.

**KRISTI SLETTE** (2000) Senior Instructor. BA, Western Washington University; MEd, Western Washington University.

## Human Services

[www.wvu.edu/hs](http://www.wvu.edu/hs)

The Human Services major (B.A.) attracts students with a strong commitment to social and economic justice, human dignity, self-determination, and the desire to affect change through direct and indirect service delivery. Since the program's inception in the mid 1970's, Western has graduated thousands of human services majors who have committed their careers to the helping professions. Graduates work in agencies and organizations in such fields as mental health services, nonprofit management, human resources, faith-based services, community development, advocacy, public policy, corrections, and international relief. Graduates often serve as case managers, grant writers, educators, or administrators to address such social issues as poverty, child

## HUMAN SERVICES AND REHABILITATION

abuse, domestic violence, and homelessness. Many graduates pursue advanced study in social work, education, public policy, law, nonprofit management or counseling.

### *Course of Study*

The faculty is committed to the idea that undergraduate preparation in human services requires both a strong academic foundation and a solid experiential base. Students who are enrolled in the major become members of an interdisciplinary and inter-professional community of learners who engage in classroom and field-based inquiry with WWU faculty, practicing professionals, and community members.

The human services curriculum is designed to meet National Standards in human services education as outlined by the Council for Standards in Human Service Education ([www.cshse.org](http://www.cshse.org)). Students take many of their courses as a cohort. This learning community provides students with an opportunity to build a deep understanding of the human services profession in a dynamic and collaborative learning environment. Built on a liberal arts foundation, the core of the curriculum examines the profession within the context of self and individuals, small groups, organizations, communities, and global systems. Additionally, students gain knowledge and expertise in case management and interventions, human development, diversity and social justice, applied research, agency management, and program planning and evaluation. Partnering with community based human services agencies and organizations, the program incorporates several quarters of field study, including practicum and internship, that integrates theory, knowledge, and skills with professional practice. Together classroom and field-based study prepares graduates to confront the challenges of the 21st century. For additional information visit: [www.wvu.edu/hs](http://www.wvu.edu/hs).

### *Declaration Process*

Human services program applicants must have a 2.75 GPA or higher overall college level work (with some exceptions as noted below) and must submit the following materials to be considered for admission to the major:

- A completed Human Services program application, including written essay
- A completed self-assessment of competency in technology use and integrated software
- A criminal history background check, which may also include fingerprinting
- A signed contract indicating an understanding and intention to comply with the program's essential functions and expectations for academic and professional performance

Interviews may be required for admission to the program. Prospective students are encouraged to seek information online at [www.wvu.edu/hrs](http://www.wvu.edu/hrs) or in Miller Hall 318, 360-650-7759, prior to submitting an application. Please contact the program for application deadlines. Students with a Washington state transferable Associate of Arts degree must apply to both Western and the major.

### *Provisional Program Acceptance and Admission Exceptions*

Human Services applicants with a cumulative GPA below 2.75 but whose most recent 45 credits of college level work is 2.75 or above, may contact the department to discuss the provisional acceptance policy. A personal interview may be required.

Additionally, applicants who expect to be within 10 credits of completing Western's GURs or within 5 credits of receiving a Direct Transfer Agreement (DTA) Associate Degree from a Washington state community college at the time they begin taking Human Services classes, are eligible to apply to the program. Contact the department for details.

A minor in Human Services is not available. Non-matriculated students, undeclared majors, and/or students from other majors at Western are able to enroll in some courses on a space available basis, with permission of the department.

### *Technology Competency and Access*

Many courses in the major have an online learning component. Therefore, students admitted to the Department of Human Services and Rehabilitation are expected to maintain regular internet access and possess competence in the use of word processing, spreadsheet and database applications. All applicants are required to complete and submit the Technology Self-Assessment Statement when applying to the program.

### *Program Offerings and Tuition*

The Human Services program is offered in Bellingham, Everett, and via Distance delivery, with classes meeting in the afternoon and evening and field-study occurring during the day. Some courses are hybrid, combining both face to face and online class meetings.

Note that tuition rates and fees are different for students enrolling at off campus locations.

### *Program Retention and Completion*

Retention in the Human Services program is dependent upon each student's ability to meet university requirements and the program's essential functions and expectations for academic and professional performance. Prior to entering a practicum / internship placement, all students are required to successfully complete HSP 340 and the Practicum I benchmark examination. To qualify for program completion, students must successfully complete a comprehensive capstone portfolio that demonstrates they meet both program standards and national standards in human services education, as outlined by the Council for Standards in Human Services Education (<http://www.CSHSE.org>). For additional information on the human services major, see [www.wvu.edu/hs](http://www.wvu.edu/hs).

### *Questions*

For additional information on the Human Services program, call 360-650-7759, or e-mail [hsp.info@wwu.edu](mailto:hsp.info@wwu.edu).

## **Nursing**

[www.wvu.edu/bsn](http://www.wvu.edu/bsn)

The Nursing (RN to BSN), BSN degree is a BSN completion program that includes 45 upper division credits to be completed at WWU. As an exclusively transfer degree at this time, it builds on and provides credit for previous GUR and nursing credits completed in an Associate Degree Pre-licensure program along with WWU credits.

The RN-BSN program is specifically designed for nurses who have completed an Associate's or Diploma nursing program, have their RN license already or who will take the NCLEX-RN exam and are successfully licensed as a Registered Nurse by the end of their 2nd quarter of study. It has been designed to meet the most recent AACN Essentials of Baccalaureate Education for Professional Nursing Practice (2008) through a collaborative career pathway that incorporates both prior learning from your pre-licensure nursing education along with RN-BSN course work. It is structured with classes meeting one day per week in order to allow returning nurses to balance their continued professional education along with ongoing work and personal responsibilities.

This innovative 5 quarter program of full-time study (8-9 quarters part-time) will prepare nurses with the professional competencies necessary for the increasing complexities of healthcare. It has been guided by national standards for nursing as well as the WWU Student Learning Objectives:

1. AACN Essentials of Baccalaureate Education for Professional Nursing Practice (2008)  
<http://www/aacn.nche.edu/education-resources/essential-series>
2. Quality and Safety Education in Nursing (QSEN) Competencies  
<http://www.qgsen.org>
3. QUAD Council Competencies for Public Health Nursing  
<http://quadcouncilphn.org/>
4. WWU General Education Requirements: Student Learning Objectives:  
<http://www.wvu.edu/vpue/gened/index.shtml>

WWU RN-BSN Program will prepare graduates to:

- Assimilate theories and concepts learned through the sciences and humanities into professional nursing practice.
- Access, appraise and synthesize credibility of varied sources of evidence to inform clinical judgment and organizational decision-making for optimal healthcare delivery.
- Promote a culture of evidence-based practice by integrating clinical expertise and diverse perspectives that support patient-centered care and optimal health outcomes.
- Advocate for access to and delivery of equitable health care services with an understanding of the influences of individual, socio-cultural, legal and policy factors.

## HUMAN SERVICES AND REHABILITATION

- Apply principles of leadership, systems theory, quality improvement, and interdisciplinary communication to promote patient safety and quality care in a variety of settings.
- Advocate for and practice health promotion and disease prevention strategies to enhance the well-being of individuals, families, communities and populations.
- Coordinate the delivery of healthcare services through effective professional communication, patient care technology, and interdisciplinary collaboration.
- Provide BSN generalist care within the context of evolving professional standards and a commitment to life-long learning.

### *Admission Expectations*

RN-BSN applicants with a GPA below 2.75 may contact the department to discuss the admissions exceptions policy. A personal interview will be required.

### *Technology Competency and Access*

Many courses in the major have an online learning component. Therefore, students admitted to the Department of Human Services and Rehabilitation are expected to maintain regular internet access and possess competence in the use of word processing, spreadsheet and database applications.

### **Continuing and College Education**

[www.wvu.edu/cce](http://www.wvu.edu/cce)

The Continuation and College Education program is designed to prepare both entry-level and advanced practitioners as teachers, trainers, educators and administrators, particularly in community college and continuing education settings. Upon graduation, competence is expected in such areas as leadership, instructional technology, teaching, training, project management, curriculum development, assessment and program planning.

The program office is located in Miller Hall 417B, phone: 360-650-3190, email: [cce.info@wvu.edu](mailto:cce.info@wvu.edu)

### **Rehabilitation Counseling**

The rehabilitation counseling program (M.A.) prepares graduates to work with individuals with disabilities in a variety of public and private settings. Graduates of the program are eligible to sit for the Certified Rehabilitation Counselor Examination that is required by many organizations. The program includes a combination of delivery modes, with some classes offered at the program's outreach site located at Everett Community College and other courses offered via distance in a web-based format.

The program office is located in Gray Wolf at the Everett University Center, phone: (425) 259-8890, email: [rc.everett@wvu.edu](mailto:rc.everett@wvu.edu)

## **Bachelor of Arts**

### **Human Services, BA**

Department of Human Services and Rehabilitation, Woodring College of Education

### **76 credits**

#### **Introduction/What is the Study of Human Services?**

The field of Human Services is broadly defined, uniquely approaching the objective of meeting human needs through an interdisciplinary knowledge base, focusing on prevention as well as remediation of problems, and maintaining a commitment to improving the overall quality of life of service populations. The Human Services profession is one which promotes improved service delivery systems by addressing not only the quality of direct services, but also by seeking to improve accessibility, accountability, and coordination among professionals and agencies in service delivery (NOHS, 2013). Human Services majors at Western Washington University gain knowledge and experience in case management and interventions, human development,

applied research, organizational management, program planning and evaluation and diversity and social justice. The program includes four quarters (380 hours) of field studies (practicum and internship) that integrates theory, knowledge, and skills with professional practice. Students also participate in a six-quarter sequence of study that examines the human services profession within the context of self and individuals, small groups, organizations, communities, and global systems. The curriculum is designed to meet National Standards in human services education as outlined by the Council for Standards in Human Service Education, and prior to graduation students are required to develop a capstone portfolio demonstrating that they meet these standards.

**Why Consider a Human Services Major?**

Are you interested in a career working to support and enhance the well-being of individuals, families, communities and organizations? Are you seeking a major that integrates a liberal arts education with professional practice? Do you learn effectively through student-centered activities that encourage critical thinking, collaborative inquiry and active engagement to address real world problems? If so, you may want to consider a major in Human Services. Since the mid 1970's, the Human Services major has attracted students with a strong commitment to social and economic justice, human dignity, self-determination, and the desire to support change through direct and indirect service delivery. Thousands of Human Services program graduates are currently working in meaningful positions in nonprofit, government, and community-based services.

Contact Information		
<b>Bellingham Program Contact</b>	<b>Everett Program Contact</b>	<b>Distance-Learning Contact</b>
Miller Hall 318C 360-650-7759 hs.bellingham@wwu.edu	425-259-8919 hs.everett@wwu.edu	360-650-7487 hs.distance@wwu.edu

**Sample Careers**  
 Children, Youth, and Family Services | Veterans Services | Mental Health Services | International Relief | Rehabilitation Counseling & Disability Services | Corrections & Law Enforcement | Community Development & Organizing | Faith-Based Services | Human Resources | Non-profit Management | Non-profit Organization Administrator | Community-based Sports and Recreation

**Major/Career Resources**  
[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Human services program applicants must have a cumulative GPA of 2.75 or higher over the last 45 credits (with some exceptions as noted below) and must submit the following materials to be considered for admission to the major:

- A completed Human Services program application, including written essay
- A completed self-assessment of competency in technology use and integrated software
- A criminal history background check, which may also include fingerprinting
- A signed contract indicating an understanding and intention to comply with the program's essential functions and expectations for academic and professional performance

Interviews may be required for admission to the program. Prospective students are encouraged to seek information online at <http://www.wwu.edu/hs> or in Miller Hall 318, 360-650-7759, prior to submitting an application. Please contact the program for application deadlines. Students with a transferable Associate of Arts degree from an accredited institution in Washington State must apply both to Western and the major.

*Admission Expectations*

Human Services applicants with a GPA below 2.75 may contact the department to discuss the admissions exceptions policy. A personal interview may be required.

Applicants to the Human Services program must be within 10 credits of completing Western's GURs or be within 5 credits of completing a direct transfer degree (AA) from a Washington state community college by the



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start of program classes, or have completed their direct transfer degree (AA) from a Washington state community college.

A minor in Human Services is not available. Non-matriculated students, undeclared majors, and/or students from other majors at Western are able to enroll in some courses on a space available basis, with permission of the department.

## *Technology Competency and Access*

Many courses in the major have an online learning component, or require use of technology. Therefore, students admitted to the Department of Human Services and Rehabilitation are expected to maintain regular internet access and possess competence in the use of word processing and database applications. All applicants are required to complete and submit the Technology Self-Assessment Statement when applying to the program.

## **Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

- Core courses (24 credits) taken in sequential order over six quarters.
  - HSP 301 - Human Services Professionals and Personal Systems
  - HSP 303 - Human Services Professionals and Interpersonal Systems
  - HSP 305 - Human Services Professionals and Small Group Systems
  - HSP 402 - Human Services Professionals Organizational Systems
  - HSP 404 - Human Services Professionals and Community Systems
  - HSP 406 - Human Services Professionals and Global Systems
- Other required courses (31 credits):
  - HSP 302 - Introduction to Human Services
  - HSP 315 - Human Development and Human Services
  - HSP 325 - Interviewing for Human Services
  - HSP 345 - Case Management and Interventions
  - HSP 385 - Applied Research Methods
  - HSP 435 - Human Services and Management
  - HSP 455 - Diversity & Social Justice Dynamics
  - HSP 485 - Program Planning and Evaluation
- Field study (16 credits):
  - HSP 340 - Practicum and Seminar I
  - HSP 341 - Practicum and Seminar II provide entry level skills prior to internship;
  - HSP 440 - Internship and Seminar (repeatable to 12 credits; 8 credits required)

students spend 12 hours per week gaining professional experience in an approved human services setting

## □ Capstone portfolio (5 credits):

- HSP 304 - Portfolio Learning in Human Services
- HSP 495 - Capstone Portfolio

This introduces students to portfolio learning. Students create portfolio artifacts throughout the major curriculum, and then revise and complete portfolios in a capstone course

# Bachelor of Science in Nursing

## Nursing (RN to BSN), BSN

Department of Human Services and Rehabilitation, Woodring College of Education

### 45 credits

#### Introduction/What is the Study of Nursing?

The Nursing (RN to BSN), BSN degree is a BSN completion program that includes 45 upper division credits to be completed at WWU. As an exclusively transfer degree at this time, it builds on and provides credit for previous GUR and nursing credits completed in an Associate Degree Pre-licensure program along with WWU credits.

The RN-BSN program is specifically designed for nurses who have completed an Associate's or Diploma nursing program, have their RN license already or who will take the NCLEX-RN exam and are successfully licensed as a Registered Nurse by the end of their 2nd quarter of study. It has been designed to meet the most recent AACN Essentials of Baccalaureate Education for Professional Nursing Practice (2008) through a collaborative career pathway that incorporates both prior learning from your pre-licensure nursing education along with RN-BSN course work. It is structured with classes meeting one day per week in order to allow returning nurses to balance their continued professional education along with ongoing work and personal responsibilities.

The innovative 5 quarter program of full-time study (8-9 quarters part-time) will prepare nurses with the professional competencies necessary for the increasing complexities of healthcare. It has been guided by national standards for nursing as well as WWU Student Learning Objectives:

1. AACN Essentials of Baccalaureate Education for Professional Nursing Practice (2008): <http://www.aacn.nche.edu/education-resources/essential-series>
2. Quality and Safety Education in Nursing (QSEN) Competencies: <http://www.qsen.org/>
3. QUAD Council Competencies for Public Health Nursing: <http://quadcouncilphn.org>
4. WWU General Education Requirements: Student Learning Objectives: <http://www.wwu.edu/vpue/gened/index.shtml>

WWU RN-to-BSN Program will prepare graduates to:

- Assimilate theories and concepts learned through the sciences and humanities into professional nursing practice.
- Access, appraise and synthesize credibility of varied sources of evidence to inform clinical judgment and organizational decision-making for optimal healthcare delivery.
- Promote a culture of evidence-based practice by integrating clinical expertise and diverse perspectives that support patient-centered care and optimal health outcomes.
- Advocate for access to and delivery of equitable health care services with an understanding of the influences of individual, socio-cultural, legal and policy factors.
- Apply principles of leadership, systems theory, quality improvement, and interdisciplinary communication to promote patient safety and quality care in a variety of settings.
- Advocate for and practice health promotion and disease prevention strategies to enhance the well-being of individuals, families, communities and populations.
- Coordinate the delivery of healthcare services through effective professional communication, patient care technology, and interdisciplinary collaboration.
- Provide BSN generalist care within the context of evolving professional standards and a commitment to life-long learning.

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## Why Consider an RN to BSN in Nursing?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

### *Admission requirements*

- Associate degree (A.D.N.) or diploma in nursing
- Completion of at least 90 transferrable quarter-system credits including the following nursing pre-requisite courses:
  - English Composition (5 credits)
  - Chemistry with lab (5 credits)
  - Anatomy & Physiology with lab (10 credits)
  - Microbiology (5 credits)
  - Life span psychology (5 credits)
  - Statistics (5 credits)
  - Humanities elective (5-10 credits)
- Applicants must show evidence of good academic standing with a grade of 2.0 or higher for each RN-BSN program pre-requisite and a cumulative GPA of 2.75 or higher.
- Successful completion of NCLEX-RN examination: <http://www.ncsbn.org/nclex.htm>  
NOTE: Pre-licensure nursing students may apply if graduating before the RN-BSN program start date each year. New graduates may be offered conditional admission pending successful NCLEX examination and RN licensure. Successful completion of the NCLEX examination provides 30 upper-division credits awarded towards the BSN degree only.
- Verification of current licensure to practice as a registered nurse in Washington State.  
NOTE: Applicants licensed in other U.S. states or in other countries will need to visit the Washington State Nursing Care Quality Assurance (NCQAC) web site for information on how to become licensed in Washington State: <http://www.doh.wa.gov/hsqa/Nursing>

### **Application process**

Priority consideration for admission will be given to applicants submitting all of the following requirements by the priority deadline:

- WWU Transfer Application and non-refundable application fee:  
[http://admissions.wvu.edu/transfer/t\\_instructions.html](http://admissions.wvu.edu/transfer/t_instructions.html)
- Official transcript from all colleges and universities attended
- Nursing Program Application including goal statement and resume
- Academic and professional references (3)
- FAFSA application submitted by applicable deadline: [www.fafsa.ed.gov](http://www.fafsa.ed.gov)

### **Major Declaration Process**

Offers of admission to the Nursing Program will include a major declaration card that the student must complete and submit to the Nursing Program with acceptance of admission.

Upon Acceptance and Continuation in Nursing Major

- Declaration of all Center for Disease Control and Prevention (CDC) recommended immunizations for Health Care Personnel (HCP):
  - Measles, Mumps & Rubella (MMR)
  - Hepatitis B
  - Tetanus, Diphtheria, Pertussis (TD)

- Pertussis (Whooping Cough)
- Varicella (Chicken Pox)
- Influenza
- And annual testing for tuberculosis (PPD or IGRA)
- CPR for Health Care Personnel
- Conviction/Criminal Background Check
- HIPPA Training
- Essential Functions Agreement to maintain nursing professional behaviors for admission, progression and graduation; to be developed.

### **Grade Requirements**

A grade of C or better is required for a Nursing student's major or minor courses, and supporting courses for majors and minors.

### **Program Requirements**

- NURS 301 - Information Literacy to Support Academic Discourse
- NURS 305 - Social Justice and Healthcare
- NURS 401 - E-Portfolio
- NURS 402 - Translational Research for Evidence-Based Practice
- NURS 412 - Policy, Leadership and U.S. Healthcare
- NURS 422 - Organizational Change for Patient Safety and Quality Care
- NURS 432 - Community-Based Care for Vulnerable Populations
- NURS 442 - Interdisciplinary Care Coordination
- NURS 452 - Global Health Inequities and Interventions

## **Master of Arts**

### **Rehabilitation Counseling, Non-Thesis, MA**

Department of Human Services and Rehabilitation

#### **Graduate Faculty**

**Boland, Elizabeth**, PhD.

Program Director: Dr. Elizabeth Boland, 425-259-8920, Elizabeth.Boland@wwu.edu.

#### **Program Information**

Rehabilitation counselors is a systematic process that partners with persons with physical, sensory, mental, developmental, cognitive, and emotional disabilities while emphasizing the holistic nature of human function. Rehabilitation counselors are competent to provide an assessment of abilities and functional limitations, develop plans consistent with individual needs, and partner with clients in achieving their goals through a variety of modalities including individual and group counseling, vocational training and education, and job development and placement. Rehabilitation counseling is a dynamic, exciting field with excellent employment opportunities in both the public and private sectors, including state and federal rehabilitation agencies, nonprofit agencies, veteran's programs, workers' compensation agencies, hospitals, and universities. The 72-credit degree program is completed through a combination of classroom-based and distance learning coursework. Classroom-based courses are offered at the program's off-campus site located the University Center of North Puget Sound on the Everett Community College campus. The program is accredited by the Council on Rehabilitation Education (CORE).

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For further information, see the Rehabilitation Counseling program website at [www.wvu.edu/rc](http://www.wvu.edu/rc).

## Goals

The mission of the Master of Arts in Rehabilitation Counseling program is to prepare dedicated and qualified rehabilitation counselors who will partner with individuals with disabilities to enhance their lives, including self-determination, independence, meaningful employment, and full community participation.

The objectives of the program are:

- To offer a quality curriculum that prepares master's level rehabilitation counselors with the knowledge and skills necessary to ethically and competently serve individuals with disabilities.
- To recruit and retain qualified students for a viable program that includes persons from racial and cultural minorities and individuals with disabilities.
- To promote a learning community of students from diverse backgrounds that enriches student experience and education and promotes full participation of individuals with disabilities as well as persons from culturally diverse backgrounds.
- To create opportunities for student interaction with individuals with disabilities as well as individuals from culturally diverse backgrounds.
- To efficiently and effectively enhance the program by obtaining regular and timely feedback from students, the advisory committee, field experience site supervisors, consumers, graduates, and employers

## Application Information

**Admit Quarters:** Fall

**Application Deadlines:** Priority deadline: April 1; Final deadline: June 1

## Supporting Materials:

Candidates must meet the requirements of the Graduate School in addition to the following departmental requirements:

- The Miller Analogies Test (MAT) is preferred or the Graduate Record Exam, General Test; test scores are not required if an applicant holds an advanced degree from an accredited college or university
- Three current references
- A current résumé
- A typed personal statement outlining the rationale for applying to the program. The statement should address career objectives, rationale for choosing this program, professional and personal strengths as they apply to the field of rehabilitation counseling, related work experiences, the way in which personal and professional life experiences have converged to motivate application to the program, a statement of goals and interests which demonstrates and illustrates the applicant's personal value system, computer competence, and other insights as deemed appropriate by the applicant
- A personal interview
- A signed contract indicating an understanding and intention to comply with the program's essential functions and expectations for academic and professional performance.
- Successful completion of the program background check.
- Access to computer, necessary software, and computer competencies are required

Please collect all application materials, then forward the packet directly to the Graduate School, Old Main 530.

## Admission

Successful candidates must demonstrate their commitment to working with individuals with disabilities to assist them to adjust to the psychological, social, medical, and vocational impact of a disability on their lives. The commitment may be demonstrated by either work or volunteer experiences with persons with disabilities. Applicants are expected to demonstrate strong writing skills.

## Retention

In addition to Graduate School and University policies, retention in the Rehabilitation Counseling program is dependent upon the development of professional competencies in interaction with clients and other professionals, especially as related to the program's essential functions and expectations for academic and professional performance. Development of professional competencies is monitored and evaluated on a yearly basis by the faculty of the program and will serve as a basis for retention of the student in the Rehabilitation Counseling program.

## Program of Study

Requirements (minimum 72 credits)

Core (52 credits)

- RC 501 - Rehabilitation Research
- RC 579 - Human Growth, Development, and Disability
- RC 580 - Theory of Rehabilitation Counseling
- RC 582 - Introduction to Rehabilitation Counseling
- RC 583 - Practice of Rehabilitation Counseling
- RC 584 - Group Counseling Techniques in Rehabilitation
- RC 585 - Social, Psychological and Attitudinal Aspects of Disability
- RC 586 - Medical Aspects of Disability
- RC 587 - Utilization of Tests and Evaluation Tools
- RC 588 - Career Development and Job Placement
- RC 589 - Case Management in Rehabilitation
- RC 594 - Introduction to Psychiatric Rehabilitation
- RC 595 - Cognitive Disabilities in Rehabilitation
- Practicum/Internship: (20 credits)
  - RC 591 - Practicum in Rehabilitation Counseling
  - RC 592 - Internship in Rehabilitation Counseling

## Comprehensive Examination

Students are required to pass a comprehensive examination prior to graduation during the last quarter in the program.

## Additional Information

### ***Competency in Instructional Technology***

Students admitted to programs in the Woodring College of Education are required to possess competence in the use of instructional technology in education prior to completion of their program and, when applicable, prior to being recommended for certification. Procedures for demonstrating or developing competence are available in Miller Hall 204.

### ***Comprehensive Assessment***

Woodring College of Education students in Option II are required to complete a comprehensive assessment. The format, timeline and criteria are defined by specific departments. For procedures, students should see their graduate advisors.

### ***Second Master's Degree***

Enrollment must be for a single MEd, MA or MIT program. Students who have earned an MEd or MIT may apply for admission to another MEd program but all requirements of the second program must be met (with

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possible allowance for some course work taken in the first program). However, all programs must be completed with the minimum number of required credits.

**NOTE:** Due to a review and revision process which may affect Woodring College of Education programs and courses, the information contained in the Education section of this catalog is subject to change.

Post-baccalaureate candidates interested in combining teacher certification and master's degree study should contact the Teacher Education Admissions office or the Graduate Office.

Some programs include an internship. Successful completion of a criminal background check that may involve fingerprinting is required of all students prior to the internship. Students with questions should check with their department advisor for details.

## Master of Education

### Continuing and College Education, Non-Thesis, MEd

#### Graduate Faculty

**Cuban, Sondra**, PhD.

**Goto, Stanford**, PhD.

**Dagnon, Paula**, PhD.

Program Director: Dr. Sondra Cuban, Miller Hall 417D, 360-650-3190, [Sondra.Cuban@wwu.edu](mailto:Sondra.Cuban@wwu.edu)

#### Program Information

The Master's in Continuing and College Education program is designed for those who desire to teach, train, and administer education programs targeted to adult populations. The Continuing and College Education curriculum prepares students for competency in the areas of instructional technology, teaching, training, curriculum development, leadership and management, project management, assessment and program planning. Graduates will work in settings such as business and industry, community/technical colleges, universities, government agencies, and not-for-profit organizations.

All course work is offered in hybrid format (some sessions at the main campus in Bellingham) or via distance learning. Refer to the Extended Education Programs section of this catalog.

The program is designed for working adults; therefore the majority of students enroll for part-time study.

Completion time for the program is designed for two years.

Students may choose CCE electives or use their elective credits toward a Certificate in Teaching English to Speakers of Other Languages (TESOL).

For more information, see the Continuing and College Education website at [wwu.edu/CCE](http://wwu.edu/CCE).

#### Goals

The program prepares both entry-level and advanced practitioners as teachers, trainers, educators, and administrators, particularly in community college and continuing education settings.

#### Application Information

**Admit Quarters:** Fall, winter, spring, summer.

**Deadline:** Application deadlines are June 1, October 1, February 1, May 1.

Supporting Materials:

- A completed application and fee
- A baccalaureate degree from an accredited college or university — one set of official transcripts from each school attended. (3.0 GPA in the last 90 quarter or 60 semester hours of study is required)
- Three current references
- A current résumé

- Miller Analogies Test (preferred) or the Graduate Record Exam, General Test or REVISED General Test beginning August 2011; test scores are not required if an applicant holds an advanced degree
- A two-page statement which addresses relevant experiences, interests, learning objectives, and career goals
- Computer competence is expected

Please forward all application materials directly to the Graduate School, Old Main 530 or [gradschool@wwu.edu](mailto:gradschool@wwu.edu).

### Program Requirements (52 credits)

- Core courses: [32 credits]
  - CCE 501 - Introduction to Research in Education
  - I T 546 - Instructional Technology and Education - CCE
  - CCE 554 - Foundations of Continuing Education
  - CCE 571 - Curriculum Development and Assessment
  - CCE 576 - Leadership and Management of Educational Programs
  - CCE 577 - Learning in Adulthood
  - CCE 586 - Teaching in E-Learning and Hybrid Environments
  - CCE 588 - Portfolio and Applied Research Proposal
- Electives under advisement: (20-28)
- Comprehensive assessment

### Additional Information

#### ***Competency in Instructional Technology***

Students admitted to programs in the Woodring College of Education are required to possess competence in the use of instructional technology in education prior to completion of their program and, when applicable, prior to being recommended for certification. Procedures for demonstrating or developing competence are available in Miller Hall 417A.

#### ***Comprehensive Assessment***

Woodring College of Education students in Option II are required to complete a comprehensive assessment. The format, timeline and criteria are defined by specific departments. For procedures, students should see their graduate advisors.

#### ***Second Master's Degree***

Enrollment must be for a single MEd, MA or MIT program. Students who have earned an MEd or MIT may apply for admission to another MEd program but all requirements of the second program must be met (with possible allowance for some course work taken in the first program). However, all programs must be completed with the minimum number of required credits.

**NOTE:** Due to a review and revision process which may affect Woodring College of Education programs and courses, the information contained in the Education section of this catalog is subject to change.

## **Continuing and College Education, Thesis, MEd**

### **Graduate Faculty**

**Cuban, Sondra**, PhD.

**Goto, Stanford**, PhD.

**Dagnon, Paula**, PhD.



# HUMAN SERVICES AND REHABILITATION

Graduate Program Advisor: Dr. Sondra Cuban, Miller Hall 417D, 360-650-3190, Sondra.Cuban@wwu.edu

## Program Information

The Master's in Continuing and College Education program is designed for those who desire to teach, train, and administer education programs targeted to adult populations. The Continuing and College Education curriculum prepares students for competency in the areas of instructional technology, teaching, training, curriculum development, leadership and management, project management, assessment and program planning. Graduates will work in settings such as business and industry, community/technical colleges, universities, government agencies, and not-for-profit organizations.

All course work is offered in hybrid format (some sessions at the main campus in Bellingham) or via distance learning. Refer to the Extended Education Programs section of this catalog.

The program is designed for working adults, therefore the majority of students enroll for part-time study. Completion time for the program is designed for two years.

Students may choose CCE electives or use their elective credits toward a Certificate in Teaching English to Speakers of Other Languages (TESOL).

For more information, see the Continuing and College Education website at [wwu.edu/cce](http://wwu.edu/cce).

## Goals

The program prepares both entry-level and advanced practitioners as teachers, trainers, educators, and administrators, particularly in community college and continuing education settings.

## Application Information

**Admit Quarters:** Fall, winter, spring, summer.

**Deadline:** Application deadlines are June 1, October 1, February 1, May 1.

Supporting Materials:

- A completed application and fee
- A baccalaureate degree from an accredited college or university — One set of official transcripts from each school attended. (3.0 GPA in the last 90 quarter or 60 semester hours of study is required)
- Three current references
- A current résumé
- Miller Analogies Test (preferred) or the Graduate Record Exam, General Test or REVISED General Test beginning August 2011; test scores are not required if an applicant holds an advanced degree
- A two-page statement which addresses relevant experiences, interests, learning objectives, and career goals
- Computer competence is expected

Please forward all application materials directly to the Graduate School, Old Main 530 or [gradschool@wwu.edu](mailto:gradschool@wwu.edu).

## Program Requirements (52 credits)

- Core courses: [28 credits]
  - CCE 501 - Introduction to Research in Education
  - I T 546 - Instructional Technology and Education - CCE
  - CCE 554 - Foundations of Continuing Education
  - CCE 571 - Curriculum Development and Assessment
  - CCE 576 - Leadership and Management of Educational Programs
  - CCE 577 - Learning in Adulthood
  - CCE 586 - Teaching in E-Learning and Hybrid Environments

- CCE 690 - Thesis [8 credits]
- Electives under advisement [16-20 credits]

### Additional Information

#### ***Competency in Instructional Technology***

Students admitted to programs in the Woodring College of Education are required to possess competence in the use of instructional technology in education prior to completion of their program and when applicable, prior to being recommended for certification. Procedures for demonstrating or developing competence are available in Miller Hall 417A.

#### ***Comprehensive Assessment***

Woodring College of Education students in Option II are required to complete a comprehensive assessment. The format, timeline and criteria are defined by specific departments. For procedures, students should see their graduate advisors.

#### ***Second Master's Degree***

Enrollment must be for a single MEd, MA or MIT program. Students who have earned an MEd or MIT may apply for admission to another MEd program but all requirements of the second program must be met (with possible allowance for some course work taken in the first program). However, all programs must be completed with the minimum number of required credits.

**NOTE:** Due to a review and revision process which may affect Woodring College of Education programs and courses, the information contained in the Education section of this catalog is subject to change.

### **Student Affairs Administration in Higher Education, Non-Thesis, MEd (In Moratorium)**

This program is currently not accepting new students. For further information contact the Department of Human Services and Rehabilitation, Western Washington University, 516 High Street., Bellingham, WA 98225-9091, Phone: (360) 650-7644, email: [hsp.info@wwu.edu](mailto:hsp.info@wwu.edu), website: [wwu.edu/SAA](http://wwu.edu/SAA)

### **Graduate Faculty**

#### **Program Information**

The Student Affairs Administration program prepares professionals for work in student affairs in higher education. The program emphasizes competence in the areas of student learning, student development theory and practice, leadership and management, advising/counseling, group process, assessment, cultural pluralism, collaboration, and program development. Further, it develops abilities necessary to navigate current problems and issues facing student affairs in higher education.

The program of study and supervised internship meets the guidelines of the Council for Advancement of Standards for Student Services/Development programs (CAS preparation standards). The professional skill development, theoretical concepts, research and assessment activities, and experiential opportunities provided by the program are often applied to a broad array of leadership and/or helping relationship roles in higher education.

A three-quarter, in-depth internship in a student affairs office is an integral component of the program. The research and assessment requirement is an applied practitioner research and assessment project, though students may choose a thesis option.

For more information, see the Student Affairs Administration program website at [wwu.edu/SAA](http://wwu.edu/SAA).

#### **Goals**

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The program prepares professionals for leadership positions in student affairs in higher education.

## **Application Information**

**Admit Quarters:** Summer (each cohort begins summer quarter).

**Deadline:** Application deadline is January 15th for priority consideration.

**Graduate Assistant Deadline:** Deadline to apply for a graduate assistantship is January 15th for priority consideration.

## **Supporting materials:**

- A completed application and fee
- A baccalaureate degree from an accredited college or university
- Two sets of official transcripts from each school attended (3.0 GPA in the last 90 quarter hours or 60 semester hours of study is required)
- Three current references
- Miller Analogies Test (preferred) or the Graduate Record Exam, General Test; test scores are not required if an applicant holds an advanced degree
- A current résumé
- A two-page statement which addresses relevant experiences, interests, learning objectives, and career goals
- Computer competence is expected

Please submit all application directly to the Graduate School, Old Main 530.

**Interview:** An interview with the admissions committee will take place in late February or early March for selected applicants.

## Program Requirements (55 credits)

- Core courses [34 credits]
  - SAA 501 - Assessment and Research in Student Affairs
  - SAA 555 - Foundations of Higher Education
  - SAA 557 - Student Learning and Development Theories
  - SAA 558 - Interviewing and Interpersonal Effectiveness
  - SAA 559 - Leadership and Organizational Management
  - SAA 560 - Student Affairs Practice and the College Student
  - SAA 561 - Collaboration and Group Dynamics
  - SAA 562 - Cultural Pluralism and Higher Education
  - SAA 563 - Teaching, Learning and Programming
  - SAA 564 - Current Issues and Trends in Higher Education
  - CCE 556 - The Community College
- Research:
  - SAA 691 - Assessment and Research Seminar (6)
  - SAA 592 - Internship in Student Affairs Administration (9)
  - SAA 599 - Graduation Seminar (2)
- Comprehensive assessment

## Additional Information

### ***Competency in Instructional Technology***

Students admitted to programs in the Woodring College of Education are required to possess competence in the use of instructional technology in education prior to completion of their program.

**Comprehensive Assessment**

Woodring College of Education students in Option II are required to complete a comprehensive assessment. The format, timeline and criteria are defined by specific departments. For procedures, students should see their graduate advisors.

**Second Master's Degree**

Enrollment must be for a single MEd, MA or MIT program. Students who have earned an MEd or MIT may apply for admission to another MEd program but all requirements of the second program must be met (with possible allowance for some course work taken in the first program). However, all programs must be completed with the minimum number of required credits.

**NOTE:** Due to a review and revision process which may affect Woodring College of Education programs and courses, the information contained in the Education section of this catalog is subject to change.

**Continuing & College Education Courses****CCE 473 - Methods for Writing Assistants**

Study and practice in theories and strategies for guiding writers, one-to-one or in groups, face-to-face or online. Repeatable to a maximum of 5 credits. S/U grading.

**Prerequisites & Notes:** Selection as a Writing Center Assistant.

Credits: 1-3

Grade Mode: S/U

**CCE 501 - Introduction to Research in Education**

Introduction to concepts and procedures of research in education. Interpreting research findings and critiquing research designs. Defining research questions and selecting appropriate methods. Introduction to research planning.

**Prerequisites & Notes:** Admission to Continuing and College Education program or permission of instructor.

Credits: 4

**CCE 510 - Second Language Acquisition Theory for the Adult Learner of English**

Content includes insights of modern linguistic and psychological theory into the process of second language learning, with special reference to the acquisition of English by adult speakers of other languages. Interaction with English language learners will guide a research component which identifies particular difficulties faced by the adult non-native speaker and how these challenges can be addressed.

**Prerequisites & Notes:** TESL 401 recommended.  
Credits: 4

**CCE 518 - Current Issues in Education**

Examination and discussion of several current and controversial issues in education. Repeatable with no maximum.

**Prerequisites & Notes:** Graduate status or permission of instructor.

Credits: 1-5

**CCE 521 - Methods and Materials for the Adult English Language Learner in Content Courses**

Theoretical and practical concerns in designing and implementing content instruction for adult learners with intermediate proficiency in English. Students learn to scaffold content learning and English literacy within a communicative framework. Students demonstrate proficiency by developing an effectively-scaffolded unit plan and through a project informed by research and a weekly practicum component with adult English Language Learners in a classroom setting.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 5

**CCE 542 - Classroom Management**

Techniques for dealing with ethical, behavioral and motivational challenges experienced both inside and outside the classroom. Legal rights and responsibilities of students and faculty.

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**Prerequisites & Notes:** Admission to community/technical college certification program or instructor permission.  
Credits: 2

## **CCE 554 - Foundations of Continuing Education**

Introductory seminar that provides an understanding of continuing education as a discipline and a field. Topics include: scope, structure, philosophy, history and current factors influencing practice.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
Credits: 4

## **CCE 556 - The Community College**

History, objectives, organization and role of the public community college; special attention to the expanding system in the State of Washington.

Credits: 3

## **CCE 570 - Issues in Adult Literacy**

Overview of the context in which adult literacy educators operate. Topics include politics of literacy, workplace and family literacy, federal and state policies, local literacy program designs and issues.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 4

## **CCE 571 - Curriculum Development and Assessment**

Students will analyze and apply models of curriculum development and assessment.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
Credits: 4

## **CCE 572 - Continuing Professional Development**

Provides an overview of continuing education programs for professionals, the role of the provider and current issues and research in the field.

Credits: 4

## **CCE 574 - Experiential Learning: Theory to Practice**

Designed to provide theory and practice in the use of educational strategies that enhance the learner's ability to translate research into usable knowledge.

Credits: 4

## **CCE 576 - Leadership and Management of Educational Programs**

A study of contemporary theories of leadership and their application in private, public and nonprofit agencies.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
Credits: 4

## **CCE 577 - Learning in Adulthood**

Study of the ways adults learn and the factors related to their motivation, participation and achievement. Application of theory to practice.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
Credits: 4

## **CCE 578 - Program Planning**

Program planning for all types of institutionalized adult education settings, including both private and public organizations, in-service education, etc. Case studies utilized.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
Credits: 4

## **CCE 579 - Power in Organizations**

Study the sources of power in organizations, power acquisition and various kinds of power. Examine alternatives to traditional views of power and bureaucracy.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
Credits: 4

## **CCE 580 - Effective Teaching**

Study and practice in effective teaching strategies and assessment for post-secondary and continuing education settings. Special emphasis on facilitating

student learning and applied classroom practice.

**Prerequisites & Notes:** CCE 577 recommended prior to CCE 580  
Credits: 4

### **CCE 581 - Readings in Continuing and College Education**

Supervised study focusing on selected topics in the following areas: adult education, student affairs, human resources development, human services. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 2-5

### **CCE 582 - Theory and Practice of Transfer of Learning**

Examination of variables needed in the program planning and training process to ensure transfer of learning occurs in the workplace.

**Prerequisites & Notes:** Admission to CCE program or permission of instructor.  
Credits: 4

### **CCE 583 - Training and Staff Development in Continuing Professional Education**

Examination of approaches used for training and staff development and demonstrations of training techniques.

**Prerequisites & Notes:** Admission to CCE program or permission of instructor.  
Credits: 4

### **CCE 584 - Fund Development**

A study of the practices of raising funds for educational programs and writing grants for projects.

**Prerequisites & Notes:** Admission to CCE program or permission of instructor.  
Credits: 4

### **CCE 585 - Organizational Change in Educational Settings**

Exploration and application of various models for bringing about change in an organization and the development of visions and strategies for changes in training and staff development.

**Prerequisites & Notes:** Admission to the CCE program or permission of instructor.  
Credits: 4

### **CCE 586 - Teaching in E-Learning and Hybrid Environments**

Instructional strategies used with adult learners in online and face-to-face environments. Students will practice configuring and using an electronic course management system. Includes two teaching demonstrations.

**Prerequisites & Notes:** CCE 571 or CCE 580 or permission of instructor.  
Credits: 4

### **CCE 588 - Portfolio and Applied Research Proposal**

In this course students complete capstone projects including a portfolio of works demonstrating proficiency in CCE learning outcomes and a research proposal. S/U grading.

**Prerequisites & Notes:** CCE 501; student (a) must be in final quarter of classes excluding thesis/field project and (b) must receive approval of program advisor.  
Credits: 4  
Grade Mode: S/U

### **CCE 590 - Global Perspectives in Education**

An examination of how cultural, political, social, and economic factors impact education from a global perspective compared to the factors impacting education in North America.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
Credits: 4

### **CCE 592 - Field Experience**

Field-based project in an aspect of continuing education or community college education to enhance theory/practice integration, such as, teaching, training, leadership, project management, curriculum development, distance education design. Repeatable to a maximum of 8 credits under advisement. S/U grading.

**Prerequisites & Notes:** Graduate status or

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permission of instructor.

Credits: 2-6

Grade Mode: S/U

## **CCE 690 - Thesis**

Research study under the direction of a faculty committee. Repeatable to a maximum of 9 credits. S/U grading.

**Prerequisites & Notes:** Advancement to candidacy; graduate committee approval.

Credits: 1-9

Grade Mode: S/U

## **CCE 691 - Research Seminar**

Graduate research under the direction of program adviser/committee. Repeatable to a maximum of 6 credits. S/U grading.

**Prerequisites & Notes:** Graduate committee or program advisor approval.

Credits: 1-6

Grade Mode: S/U

## **Human Services Courses**

### **HSP 301 - Human Services Professionals and Personal Systems**

Explores personal systems in relation to other systems with an emphasis on motives, values, personal communication, and self-determination.

**Prerequisites & Notes:** Admission to major, or permission of Human Services Program.  
Credits: 4

### **HSP 302 - Introduction to Human Services**

A conceptual foundation of human services, with an emphasis on history, current theoretical models, and ethical considerations for professionals.

Credits: 3

### **HSP 303 - Human Services Professionals and Interpersonal Systems**

Investigates interpersonal systems in relation to other systems, with an emphasis on communication models and professional strategies.

**Prerequisites & Notes:** HSP 301 or instructor permission

Credits: 4

### **HSP 304 - Portfolio Learning in Human Services**

Must be taken in the first 5 credits of the major. Reading, writing, and discussion elaborating on the portfolio processes for learning, assessment and professional development in the human services field. An emphasis is placed on benchmark assessment in relationship to CSHSE National Standards and a survey of writing styles of the human services profession. Portfolios will be finalized in HSP 495 - Capstone Portfolio. S/U grading.

Credits: 1

Grade Mode: S/U

### **HSP 305 - Human Services Professionals and Small Group Systems**

A study of small groups in relation to other systems, with emphasis on theories of group dynamics, process, facilitation, and leadership.

**Prerequisites & Notes:** HSP 303 or instructor permission

Credits: 4

### **HSP 311 - Health Care and Human Services**

Examines societal, cultural, and economic factors that affect characteristics of the healthcare system, analyzes policies, and assesses different organizational models that impact the skills and knowledge necessary for human services professionals to advocate for client access to the health care system and to influence health care policy.

Credits: 4

### **HSP 315 - Human Development and Human Services**

An interdisciplinary examination of human development across the lifespan, with an emphasis on issues that are relevant to providing effective human services delivery. Topics examine theories related to physical, cognitive, social, and emotional development, normative and non-normative developmental processes, and the relationship

between public policy, human services, and human development.

Credits: 4

### **HSP 323 - Conflict Resolution in Human Services**

A multidisciplinary survey of the nature of conflict and models of conflict resolution including mediation, negotiation, arbitration, conciliation, and collaborative problem solving as they apply to the human services profession.

Credits: 4

### **HSP 325 - Interviewing for Human Services**

Addresses the theory and practice of interviewing in a variety of settings including agencies, education, health care, and business. Examines ethics in the practice of interviewing. Emphasizes skill development.

Credits: 4

### **HSP 331 - Children, Families, and Communities**

Explores theories, research, and practices of child and family-centered development with an emphasis on child and family-centered support practices, home-school-community collaborations, interprofessional practices, and integrated services.

Credits: 4

### **HSP 340 - Practicum and Seminar I**

An introduction to practicum learning, with an emphasis on professional and ethical expectations, liability and malpractice, confidentiality and boundaries, health and safety, and observation and reflection. Supervised field experience is included. S/U grading.

**Prerequisites & Notes:** HSP 301

Credits: 4

Grade Mode: S/U

### **HSP 341 - Practicum and Seminar II**

Practicum learning and accompanying seminar, with an emphasis on establishing client/professional relationships; understanding

and following agency policies, procedures, and protocol; and professional growth through observation and reflection. Supervised field experience is included. S/U grading.

**Prerequisites & Notes:** HSP 340

Credits: 4

Grade Mode: S/U

### **HSP 345 - Case Management and Interventions**

Models and theories of case management, intake assessment, service planning and coordination, monitoring, documentation and use of technology, and termination of services. Continuum of interventions, (i.e., prevention, treatment, maintenance, aftercare) are addressed within the context of a spectrum of service settings and ethical and culturally appropriate responses.

Credits: 4

### **HSP 356 - Narrative in Human Services**

Interdisciplinary study of the uses of narrative in social science research, psychological theory, cultural and individual identity, and the professional practice of human services.

Credits: 4

### **HSP 371 - Issues and Concepts in Human Services**

Discuss and analyze selected issues and concepts in human services. Repeatable to a maximum of 8 credits.

Credits: 4

### **HSP 373 - Law and Human Services**

Study in the interaction of legal systems with human services delivery systems, and the roles of the courts in impacting social change in society. Examine the institutional sources of law that affect individual and group rights and duties, criminal justice models and systems, and major issues in criminal and civil law.

Credits: 4

### **HSP 385 - Applied Research Methods**



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An introduction to quantitative and qualitative research methods relevant to the human services profession. Includes an overview of research designs, analysis techniques, and methods of interpretation, dissemination and application.

Credits: 4

## **HSP 402 - Human Services Professionals Organizational Systems**

An examination of human service organizations in relation to other systems, with an emphasis on organizational theory, influencing systems and outcomes, and the role of human services professionals in organizations.

**Prerequisites & Notes:** HSP 305 or instructor permission

Credits: 4

## **HSP 404 - Human Services Professionals and Community Systems**

Study of community systems in relation to human services systems. Emphasis on analyzing theories of community change and examining the roles of human services professionals in communities.

**Prerequisites & Notes:** HSP 402 or instructor permission

Credits: 4

## **HSP 406 - Human Services Professionals and Global Systems**

Explores societal and global systems in relation to human services systems, with an emphasis on advocacy, change, and social justice.

**Prerequisites & Notes:** HSP 404 or instructor permission

Credits: 4

## **HSP 410 - Mental Health: Individuals and Systems**

A survey of diagnostic criteria and an overview of theory and research describing the interactions of biological, environmental, psychosocial, cognitive and socio-cultural factors that relate to the development and maintenance of mental health. An emphasis is placed on understanding the major models used to integrate prevention, maintenance, and intervention, reduce recidivism and promote

healthy functioning. Integrated services and resource referral practices are examined within the context of mental health services and general human services delivery.

Credits: 4

## **HSP 430 - Readings and Projects in Human Services**

Supervised reading and projects on selected contemporary topics that impact human services. Repeatable to a maximum of 8 credits.

Credits: 1-4

## **HSP 435 - Human Services and Management**

Fundamentals of management in public and nonprofit agencies and organizations, including budget development and diversification of revenue sources.

Credits: 4

## **HSP 440 - Internship and Seminar**

Demonstration and documentation of knowledge and skills to meet Council for Standards in Human Service Education national standards. Includes seminar and 120 hours of supervised field experience. S/U grading. Repeatable to a maximum of 12 credits.

**Prerequisites & Notes:** HSP 341; HSP 325, HSP 345 recommended.

Credits: 4

Grade Mode: S/U

## **HSP 443 - Disability: Individuals and Systems**

An exploration of disability issues relating to work in human services, including historical, legal, ethical, medical, psychosocial, employment, and independent living issues; review of specific disabilities.

Credits: 4

## **HSP 450 - Survey of Addictions and Dependencies**

Examines the etiology of chemical dependency and other compulsive behaviors and the impact of these behaviors on societal systems such as family, legal, education, work, social, and health

services. Discusses roles of human services professionals in prevention and intervention.  
Credits: 4

### **HSP 455 - Diversity & Social Justice Dynamics**

Examination of the current complexity and historical context of diversity in relationship to human services systems. Topics include responses to institutional oppression and privilege as manifested in societal systems.

Credits: 4

### **HSP 484 - Program Funding and Grant Writing**

Investigating optimum sources for funding the delivery of human services programs with an emphasis on planning, writing, marketing, and evaluating funding proposals. Determining funding strategies, selecting funding methods, researching grant funds, interpreting funding guidelines, and preparing grant proposals.

**Prerequisites & Notes:** HSP 435 or permission of instructor.

Credits: 4

### **HSP 485 - Program Planning and Evaluation**

Fundamentals of program planning in human services delivery including needs assessment and program evaluation.

**Prerequisites & Notes:** HSP 385

Credits: 4

### **HSP 486 - Human Resources in Human Services**

Overview of the human resources knowledge and skills required of human services professionals

Credits: 4

### **HSP 487 - Leadership**

Modern theories of administration, management and leadership. Interdisciplinary exploration of theories, models, principles, research, and skills as they relate to personal and organizational leadership.

Credits: 4

### **HSP 495 - Capstone Portfolio**

Must be taken in the last 5 credits of the major. Assess integrated learning through discussion and writing related CSHSE National Standards. Review and revise capstone essay and writing samples; review, select and revise portfolio artifacts. Finalize student capstone portfolio to complete benchmark assessment in the Human Services major.

Credits: 4

## **Nursing Courses**

### **NURS 301 - Information Literacy to Support Academic Discourse**

Focuses on developing the ability to utilize technologies to access and evaluate the credibility of information, consider the strength of varied perspectives, and develop skills of academic discourse necessary for a reasoned analysis of current issues in health care and health care professions.

**Prerequisites & Notes:** ENG 101 and admission to RN-BSN program or permission of instructor.

Credits: 5

GUR Attributes: BCOM

### **NURS 305 - Social Justice and Healthcare**

Explores the principal themes and issues relating to social justice and health disparities. Examines how oppression, racism and privilege shape patient care. Provides opportunities to support social justice in healthcare using increased self-awareness, theories of justice, and research findings to promote equitable patient care.

**Prerequisites & Notes:** Admission to the RN-BSN program or permission of instructor.

Credits: 5

GUR Attributes: HUM

### **NURS 307 - Writing Across the Curriculum**

This is a hybrid course that emphasizes strategies and ongoing practice in critical reading, writing and thinking skills that enhance student success in developing clear, informed, analytic and persuasive academic papers. Students may take one credit per quarter, repeatable up to 5 credits maximum, including original course. May be taken concurrently with any core RN-BSN course.

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**Prerequisites & Notes:** Admission to RN-BSN program or permission of instructor.

Credits: 1

Grade Mode: S/U

## **NURS 401 - E-Portfolio**

The e-portfolio process includes opportunities for self-assessment of progress made in meeting program specific and individual student goals. Ongoing reading, writing and reflection contribute to cumulative e-portfolio development. Must be repeated for a total of 5 credits, including original course.

**Prerequisites & Notes:** Admission to the RN-BSN program.

Credits: 1

Grade Mode: S/U

## **NURS 402 - Translational Research for Evidence-Based Practice**

Utilizes the elements of the research process and analytic skills necessary to evaluate, translate and apply current systematic inquiry to inform nursing practice and promote optimal clinical outcomes.

**Prerequisites & Notes:** NURS 301

Credits: 5

## **NURS 412 - Policy, Leadership and U.S. Healthcare**

Examines health care policy, finance and regulatory environments that directly and indirectly influence the health care system. Utilizes a systems-leadership approach in advocacy for patients, families, communities and healthcare professionals to promote social justice and equity in our system of care.

**Prerequisites & Notes:** NURS 402 or permission of instructor.

Credits: 5

GUR Attributes: SSC

## **NURS 422 - Organizational Change for Patient Safety and Quality Care**

Examines and applies theories of organizational behavior, systems thinking, and leadership to quality improvement strategies that minimize errors and optimize positive clinical outcomes.

Participation in selected patient safety and quality improvement initiatives provide opportunity to apply and evaluate the relevance of theoretical concepts to real-world health care challenges.

**Prerequisites & Notes:** NURS 402

Credits: 5

## **NURS 432 - Community-Based Care for Vulnerable Populations**

Emphasizes population focused healthcare including the assessment of risk, predictive and protective factors that influence health and well-being of groups, communities and aggregate populations. Integrates and applies principles of social justice, health promotion, disease and injury prevention in providing services to vulnerable populations in the community-context.

**Prerequisites & Notes:** NURS 412; NURS 422 or concurrent; or permission of instructor.

Credits: 5

GUR Attributes: BCGM

## **NURS 442 - Interdisciplinary Care Coordination**

Integrates knowledge, skills and attitudes necessary to promote community based patient/family centered health care coordination through effective use of appropriate technologies, interdisciplinary communication, teamwork and collaboration. Serves as a field experience in students' final quarter of study.

**Prerequisites & Notes:** NURS 432 and NURS 452; or permission of instructor.

Credits: 5

## **NURS 452 - Global Health Inequities and Interventions**

Examines major problems and policy issues in global health from multiple perspectives. Focuses on understanding the historical, political, social, cultural, environmental and economic determinants of adverse health conditions in developing countries. Provides a knowledge base for healthcare professionals to promote social justice by improving global health disparities.

**Prerequisites & Notes:** NURS 432 or permission of instructor.

Credits: 5  
GUR Attributes: ACGM

## Rehabilitation Counseling Courses

### **RC 501 - Rehabilitation Research**

An overview of research including: design and analysis; criteria for reading and interpreting existing studies; practice in identifying issues suitable for research; formulating hypotheses and appropriate methods; and guidance in preparing a program evaluation. Emphasis is on the application of research in clinical and rehabilitation settings.

Credits: 4

### **RC 519 - Current Issues in Rehabilitation Counseling**

Examination of several current and controversial issues in rehabilitation. Topics change. Repeatable to a maximum of 6 cr.

Credits: 3

### **RC 546 - Relapse Prevention and Rehabilitation**

Addresses personal, family and social rehabilitation issues that emerge first five from addiction. Discusses the processes and behaviors leading to relapse and theoretical models for prevention and promoting recovery.

Credits: 3

### **RC 579 - Human Growth, Development, and Disability**

Examines human growth and development in the context of rehabilitation counseling. Provides a review of human development theories across the lifespan and their implications and applications with persons with disabilities.

Credits: 4

### **RC 580 - Theory of Rehabilitation Counseling**

An introduction to major counseling theories and their application in rehabilitation settings. Emphasis on understanding and demonstrating basic helping skills in a counseling relationship with

individuals with disabilities.

Credits: 4

### **RC 581 - Readings and Projects in Rehabilitation**

Supervised readings and projects on selected contemporary topics that impact rehabilitation counseling. Repeatable to a maximum of 6 credits.

Credits: 2-4

### **RC 582 - Introduction to Rehabilitation Counseling**

An overview of the principles and practices of rehabilitation counseling, including history, philosophy, ethics, legislative influences, organizational structures, and service-delivery models. Explores various specialties within the field of rehabilitation counseling.

Credits: 4

### **RC 583 - Practice of Rehabilitation Counseling**

Application of concepts and techniques that have been introduced from major counseling theories in RC 580. Emphasis on continued development and refinement of counseling skills through advanced role-play and actual counseling with individuals with disabilities.

**Prerequisites & Notes:** RC 580 or permission of instructor  
Credits: 4

### **RC 584 - Group Counseling Techniques in Rehabilitation**

A didactic and experiential course to introduce students to the dynamics of group counseling. Purpose, process and techniques related to various types of groups.

**Prerequisites & Notes:** RC 583 or permission of instructor.  
Credits: 4

### **RC 585 - Social, Psychological and Attitudinal Aspects of Disability**

An examination of the impact of disability on the individual, the individual's environment, significant others, and society in general. The adjustment

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process that individuals and their families experience is compared and contrasted within developmental and environmental contexts.

Credits: 4

## **RC 586 - Medical Aspects of Disability**

An examination of the etiology, prognosis, treatment and vocational implications of major disabling conditions with an emphasis on physical and sensory impairments. Includes an introduction to medical specialties, therapeutic services, restorative techniques, medical terminology, and rehabilitation engineering.

Credits: 4

## **RC 587 - Utilization of Tests and Evaluation Tools**

Gathering, analyzing, and synthesizing of vocationally relevant information for use in the rehabilitation process. Advantages and limitations of traditional psychological inventories, as well as various situational assessment tools. Emphasis on collaborative, client-centered approach to assessment.

Credits: 4

## **RC 588 - Career Development and Job Placement**

Examines career development theories, occupational information, labor market trends, and meaningful employment with a career focus. Includes job analysis, employment techniques, accommodations, and legislation.

Credits: 4

## **RC 589 - Case Management in Rehabilitation**

Examines techniques and procedures related to individualized case management and caseload management. Explores case management issues of various disability groups, including educational and vocational community resources.

Credits: 4

## **RC 590 - Employment Strategies and Job Placement**

Explores the process and techniques of work adjustment, job development, job maintenance, and building relationships with employers. Includes job analysis, employment techniques, labor market trends, accommodations, and legislation.

**Prerequisites & Notes:** RC 588 or instructor permission

Credits: 3

## **RC 591 - Practicum in Rehabilitation Counseling**

Demonstration of counseling skills with individuals with disabilities in a rehabilitation agency. Supervision by agency personnel. S/U grading.

**Prerequisites & Notes:** RC 582, B or better in RC 583 and instructor permission.

Credits: 4

Grade Mode: S/U

## **RC 592 - Internship in Rehabilitation Counseling**

Demonstration of counseling skills in a rehabilitation agency with primary supervision by agency personnel. Students are required to spend significant time within an agency functioning as a professional counselor. Repeatable to a maximum of 16 credits. S/U grading.

**Prerequisites & Notes:** RC 591 and permission of instructor.

Credits: 1-8

Grade Mode: S/U

## **RC 593 - Introduction to Assistive Technology**

Understand the ecology of assistive technology for people with disabilities. Emphasis is on the functional assessment and relation to assistive technology needs and the physical, psychosocial, environmental and legal domains of assistive technology. Covers the use of various devices and their implications on an individual's rehabilitation program.

Credits: 3

## **RC 594 - Introduction to Psychiatric Rehabilitation**

Understanding major psychiatric disorders, principles and practices of psychiatric

rehabilitation. Examines the role of the rehabilitation counselor as an integral part of the treatment team.

Credits: 4

### **RC 595 - Cognitive Disabilities in Rehabilitation**

An examination of the etiology, prognosis, treatment, and vocational implications of cognitive disabilities.

Credits: 4

### **RC 596 - Advanced Assessment in Rehabilitation**

Application of medical, vocational, and assessment knowledge and skills to the planning, selection, and interpretation of the rehabilitation process for individuals with disabilities.

**Prerequisites & Notes:** RC 587 or permission of instructor.

Credits: 3

### **RC 598 - The Family and Rehabilitation Counseling**

A theoretical understanding of how to work with families for achieving maximum outcomes in the rehabilitation counseling process.

**Prerequisites & Notes:** RC 583 or permission of instructor.

Credits: 3

### **RC 599 - Advanced Practice of Rehabilitation Counseling**

A didactic and experiential course which emphasizes in-depth practice of the theories, concepts, and techniques introduced in RC 580 and 583. Continued development and refinement of counseling skills with proficiency as a desired outcome.

**Prerequisites & Notes:** RC 580 and RC 583 or instructor permission.

Credits: 3

## **Student Affairs Administration Courses**

### **SAA 340 - Paraprofessional Advisement**

Emphasizes the helping relationship in various student affairs advising, educational and residential program areas. Repeatable with different topics.

**Prerequisites & Notes:** Permission of instructor and anticipated employment in campus-based student services.

Credits: 2-4

### **SAA 341 - Practicum in Paraprofessional Advisement**

Supervised practicum for students to work in university student services programs. Repeatable with various experiences to a maximum of 6 credits. S/U grading.

**Prerequisites & Notes:** SAA 340; permission of instructor.

Credits: 1-4

Grade Mode: S/U

### **SAA 375 - Diversity in Higher Education and Student Affairs**

An introduction to the study of diversity issues within the context of services and programs in higher education and student affairs. Emphasis on the relationship between growth in diversity of students and the range and complexity of services and programs designed to ensure their academic and personal success.

Credits: 4

### **SAA 420 - Foundations of Student Leadership: Theory and Practice**

Introduces leadership theories and facilitates student understanding of their leadership styles and strategies as emerging leaders.

**Prerequisites & Notes:** Permission of instructor.

Credits: 3

### **SAA 501 - Assessment and Research in Student Affairs**

Delineates history, philosophy, and goals of assessment and research in student affairs.

# HUMAN SERVICES AND REHABILITATION

Describes assessment and research models for student affairs practitioners using quantitative, qualitative, and mixed methods. Integrates theory of applied research methodologies with practical problems and current issues in student affairs. Emphasizes ethics throughout the research and assessment processes.

**Prerequisites & Notes:** Admission to Student Affairs Administration graduate program or permission of instructor.  
Credits: 4

## **SAA 555 - Foundations of Higher Education**

Studies of historical and philosophical foundations of higher education. Examines social and political forces influential in the evolution of colleges and universities, as well as current trends.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
Credits: 3

## **SAA 557 - Student Learning and Development Theories**

Examines cognitive, psychosocial and identity development theories and models as well as implications for student affairs programs, services and student interactions.

**Prerequisites & Notes:** Admission to Student Affairs Administration program or permission of instructor.  
Credits: 4

## **SAA 558 - Interviewing and Interpersonal Effectiveness**

A didactic and experiential course addressing interpersonal communication skills used to effectively interview, assess, advise, refer and intervene in difficult student situations. Includes theoretical frameworks for effective interviewing.

**Prerequisites & Notes:** Admission to Student Affairs Administration program or permission of instructor.  
Credits: 3

## **SAA 559 - Leadership and Organizational Management**

Study of contemporary theories of leadership and management techniques with application to higher education settings.

**Prerequisites & Notes:** Admission to Student Affairs Administration program or permission of instructor.  
Credits: 3

## **SAA 560 - Student Affairs Practice and the College Student**

A foundational overview of the organizational structure and functions of student affairs administration. Understanding the students served by student affairs provides context for understanding support and service systems.

**Prerequisites & Notes:** Admission to Student Affairs Administration program or permission of instructor.  
Credits: 4

## **SAA 561 - Collaboration and Group Dynamics**

A didactic and experiential course addressing theories of group process and dynamics. Includes principles to work effectively with groups, including collaboration, leadership, and intervention skills, particularly in a higher education setting.

**Prerequisites & Notes:** Admission to Student Affairs Administration program.  
Credits: 3

## **SAA 562 - Cultural Pluralism and Higher Education**

Examines the social and historical roots of diversity in the academy, experiences and problems facing underrepresented groups and cultural competencies required of professionals in higher education.

**Prerequisites & Notes:** Admission to Student Affairs Administration program or permission of instructor.  
Credits: 4

## **SAA 563 - Teaching, Learning and Programming**

Theories, models and research on conditions for learning, developing outcomes-based programs and facilitating student learning. Focus is on

application to student affairs in higher education.

**Prerequisites & Notes:** Admission to Student Affairs Administration program.

Credits: 4

**SAA 564 - Current Issues and Trends in Higher Education**

Examines several current and controversial issues and trends in higher education. Repeatable to a maximum of 6 cr.

**Prerequisites & Notes:** Admission to Student Affairs Administration program or permission of instructor.

Credits: 3

**SAA 592 - Internship in Student Affairs Administration**

Development of professional competencies through an internship in a college student affairs office. Repeatable to a maximum of 9 credits. S/U grading.

**Prerequisites & Notes:** SAA 558 and admission to Student Affairs Administration program.

Credits: 1-6

Grade Mode: S/U

**SAA 599 - Graduation Seminar**

Provides a capstone experience for graduating candidates. Readings and discussions to assist integration of overall program experience. Repeatable to a maximum of 3 credits. S/U grading.

**Prerequisites & Notes:** Final quarter classes excluding thesis/field project; program advisor approval.

Credits: 1-3

Grade Mode: S/U

**SAA 691 - Assessment and Research Seminar**

Graduate assessment and research project under the direction of program faculty. Repeatable to a maximum of 6 credits. S/U grading.

**Prerequisites & Notes:** SAA 501.

Credits: 1-6

Grade Mode: S/U



# Secondary Education

## Introduction

The Department of Secondary Education offers professional education programs that lead to recommendation to the Office of the Superintendent of Public Instruction for residency teacher certification in the state of Washington. The programs in Secondary Education are designed to prepare thoughtful, knowledgeable, and effective middle and secondary school teachers for a diverse society.

Consistent with state and national standards for what teachers should know and be able to do, the Secondary Education curriculum is a carefully sequenced professional program that is firmly backed by current research on effective teaching and learning. The program reflects a framework which embraces the artistic, scientific, and professional aspects of teaching.

Programs which address residency teacher certification require students to complete an academic major, the teacher certification sequence and a semester internship. Upon completion of the program successful candidates will be recommended to the Certification Office of the Superintendent of Public Instruction to receive a certificate to teach in their endorsed field.

### *Information*

Individuals interested in teacher certification can obtain information from the website at [www.wce.wvu.edu/Admiss](http://www.wce.wvu.edu/Admiss). Inquiries should be directed to Woodring College Teacher Education Admissions Student Services, Miller Hall 150, phone 360-650-3313, e-mail address [TeacherAdmissions@wwu.edu](mailto:TeacherAdmissions@wwu.edu). Written inquiries may be addressed to Teacher Education Admissions, Western Washington University, MS-9090, 516 High St., Bellingham, WA 98225-9090.

Information about Secondary Education programs may be obtained by visiting the department website at [www.wce.wvu.edu/Depts/SEC](http://www.wce.wvu.edu/Depts/SEC). Advising related to the academic major or endorsement will take place in the academic major department. Students should meet with an academic major advisor before consulting with a Secondary Education advisor. Questions may be directed to the Secondary Education Department in Miller Hall 400, by phone at 360-650-3347 or by e-mail to [Janna.Cecka@wwu.edu](mailto:Janna.Cecka@wwu.edu).

Those persons interested in graduate programs should consult the Graduate School section of this catalog or contact the graduate school directly, phone 360-650-3170, e-mail [gradschl@wwu.edu](mailto:gradschl@wwu.edu). Written inquiries may be addressed to the Graduate School, Old Main 530, Western Washington University, MS-9037, 516 High St., Bellingham, WA 98225-9037.

## Faculty

**BRUCE LARSON** (1996) Chair and Professor. BAE, Pacific Lutheran University; MEd, PhD, University of Washington.

**DONALD BURGESS** (2004) Associate Professor. MEd, State University of New York, Cortland; PhD, University of British Columbia.

**ANGELA HARWOOD** (1997) Professor. BA, University of Utah; MA, PhD, Emory University.

**LAUREN MCCLANAHAN** (2000) Professor. BA, MA, PhD, The Ohio State University.

**VICTOR NOLET** (1997) Professor. BA, MEd, University of Maine; PhD, University of Oregon

**ROSALIE ROMANO** (2008) Associate Professor. BA, PhD, University of Washington

**CHRISTINE SCHAEFER** (1996) Affiliated Teaching Faculty. BA, Whitman College; MEd, PhD, University of Washington.

**SHELBY SHEPPARD** (Educational Foundations) (1997) Associate Professor. MA, BGS, PhD, Simon Fraser University.

**MOLLY WARE** (2007) Assistant Professor. BA, Principia College; MEd, University of Georgia.

**RAY WOLPOW** (1994) Professor. BA, Wagner College; MA, Columbia University; PhD, Pennsylvania State University.

### *Secondary Education Programs*

The Department of Secondary Education offers two programs which lead to teacher certification by the state of Washington.

- Secondary Education: Undergraduate and Post baccalaureate
  - This Secondary Education program leads to a recommendation to the state of Washington for a teaching certificate endorsed in at least one subject area. This program requires completion of the Secondary professional education course sequence, a baccalaureate degree and academic preparation for a qualifying endorsement, and a full semester internship
- Master's in Teaching with Residency Certification (MIT)
  - This program is designed for candidates who have already completed a baccalaureate degree and academic preparation for a qualifying endorsement and who wish to complete a master's degree while gaining teacher certification. The MIT program is available on the Western campus or at the off-campus site in Everett.

### *Certification*

The Washington Administrative Code specifies the requirements for earning a Washington state teacher certificate. State-approved preparation programs and certification requirements align with state learning goals and essential academic learning requirements, and require candidates to demonstrate that they have made a positive impact on student learning. First-level residency certification programs are designed around the standards of foundational knowledge, effective teaching, and professionalism. Second-level professional certification programs are designed around the standards of effective teaching, professional development, and professional contribution. Teacher certificates are issued by the state, upon the recommendation of the regionally accredited college or university where the candidate completed a state-approved preparation program.

**State requirements for teacher certification at the time of completion of a student's program will supersede those outlined in this catalog. These changes may affect the time it takes for a student to complete the teacher education program.**

### *Residency Teacher Certification*

**The first-level residency certificate is awarded to new teachers upon the completion of these general requirements:**

- A baccalaureate or higher-level degree from a regionally accredited college or university
- A state-approved, performance-based teacher preparation program that includes preparation in an endorsable subject area, teaching methodology, and an internship
- Evidence of good moral character and personal fitness

Candidates for residency certification must pass a subject knowledge assessment, the Washington Educator Skills Test — Endorsements (WEST-E), to receive an endorsement for certification. WWU requires submission of a passing WEST-E score for each endorsement to be earned, before commencement of the student teaching internship. For current information on test requirements, registration, fees, and test dates and locations, refer to the WEST-E Resource Website, [www.wce.wvu.edu/Resources/Endorsements/WEST-E.shtml](http://www.wce.wvu.edu/Resources/Endorsements/WEST-E.shtml). Candidates for residency certification must also complete the state of Washington Performance-based Pedagogy Assessment during the student teaching internship. Application for the residency certificate is made to Woodring College Teacher Certification, Student Services, Miller Hall 150, 360-650-4930, no later than three months prior to the start of student teaching.

The first-issue residency certificate is valid until completion of two consecutive years of certificated employment and acceptance of a third year contract with a Washington State public school district or a state-approved private school. Application is then made for a reissued residency certificate, valid for an additional five-year term.

## SECONDARY EDUCATION

### *Professional Teacher Certification*

The second-level professional certificate is awarded to experienced teachers who hold a valid residency certificate and who pass the Washington ProTeach Portfolio assessment or earn national board certification through the National Board of Professional Teaching Standards. For further information, contact the Woodring College of Education certification officer at 360-650-4630, Miller Hall 150.

### *Endorsements*

An endorsement identifies the subject matter in which a teacher is prepared and authorized by the state to teach. One qualifying endorsement is required for residency certification. Courses required for a state teaching endorsement and the professional education sequence must be completed with a grade of C (2.0) or better. Secondary Education students earn a qualifying endorsement by completing a state-approved program delivered through an academic major or approved equivalent. Students completing a major in theatre arts, physical education and health, music, special education, visual arts or world languages (Spanish, French, German or Japanese) will be prepared to teach grade levels P-12. The remaining majors prepare students to teach at the secondary level. The Secondary Education Department also offers an additional endorsement in Humanities — Middle Level. For information on additional endorsement programs offered throughout the University, contact the Woodring College of Education certification officer at 360-650-4630, Miller Hall 150.

### *Choosing an Academic Major/Endorsement*

Secondary education graduates are in high demand as teachers in many fields and grade levels. Areas of greatest demand fluctuate. Students who are interested in a teaching career are encouraged to visit the Career Services Center, Old Main 280, for information as to which endorsements are in greatest demand. Certain academic majors require sequences of classes in the first two years of college in order to complete a baccalaureate degree in four years. All secondary education students are advised to speak with an academic department advisor. The following Western Washington University majors or approved equivalent meet content requirements for a qualifying teaching endorsement:

#### *Level (Middle and High School)*

- English-Literature Emphasis
- Mathematics - Secondary
- Sciences:
  - Biology
  - Chemistry
  - Chemistry/Biology - Secondary
  - Chemistry/Mathematics - Secondary
  - Chemistry/Physics - Secondary
  - Earth Science - Secondary
  - Earth Science/Science - Secondary
  - Physics/Mathematics - Secondary
  - General Science - Secondary (Biology, Chemistry, Earth & Space Science or Physics; and Science)
- Social Studies:
  - Anthropology/Social Studies
  - Economics/Social Studies
  - Geography/Social Studies
  - History/Social Studies
  - Political Science/Social Studies
  - Sociology/Social Studies

*All Levels (P-12)*

- Art - P-12 Specialist
- Dance, BA
- Dance, BFA
- French with a Teaching Endorsement
- German with a Teaching Endorsement
- Japanese with a Teaching Endorsement
- Music Education - P-12 Choral, General or Instrumental
- Physical Education & Health - P-12
- Spanish with a Teaching Endorsement
- Special Education - P-12
- Theatre, BA (Educational Theatre)

The No Child Left Behind (NCLB) "highly qualified teacher" requirement may impact eligibility for certain middle school teaching assignments in a core academic subject(s). Students are responsible for consulting with an advisor for further information on NCLB.

*Content Methods Courses*

Content methods courses are required for all endorsements. For specific course numbers and schedule information, students are advised to contact their academic department advisor.

**Undergraduate and Post-Baccalaureate Certification Program***Program Description*

This certification program is designed for candidates who are completing their degree or are post-baccalaureates while gaining state of Washington residency certification. This program combines the endorsement preparation with certification course work. This program is designed around current research of effective teaching and promoting student learning.

*Program Length*

While it is possible, in some majors, to earn a bachelor's degree and residency teaching certificate in four academic years, most students require closer to five years. Undergraduate students usually take certification courses while completing their academic major during their junior and senior years. Students who apply to the undergraduate certification program should have satisfied all of the General University Requirements and should have completed at least 60-80% of the coursework toward their academic major.

Students in the post-baccalaureate program usually complete the certification sequence in three academic quarters plus a one-semester internship. This time frame could be extended if additional course work is needed to meet department or state endorsement requirements. Applicants to the post-baccalaureate program who have completed a baccalaureate degree and academic preparation for a qualifying endorsement with a minimum 3.0 GPA are strongly encouraged to consider the MIT program outlined below.

*Admission Requirements*

All applicants to the Woodring College of Education programs must be formally admitted to and currently enrolled at Western Washington University or must apply to Western for the same quarter they apply to teacher education. Woodring College teacher education program application materials are available in Miller Hall 150 and are also printable from [www.wce.wvu.edu/Admiss](http://www.wce.wvu.edu/Admiss).

The requirements listed below are minimum application criteria. Enrollment restrictions apply to teacher education programs. Meeting the following requirements makes the applicant eligible for admission consideration but does not guarantee admission. Students will be evaluated on all information provided with the application, including required copies of transcripts from all prior colleges. Application criteria:

- Undergraduate candidates should have completed all GURs and 60-80% of their major endorsement credits

## SECONDARY EDUCATION

- Post baccalaureate candidates should have a degree in their academic major.
- Cumulative grade point average of 2.75 or higher overall college-level work or over the last 45 credits
- Passing score on all three subtests (reading, mathematics, writing) of the Washington Educator Skills Test-Basic (WEST-B). Visit the WEST-B Website at [www.west.nesinc.com](http://www.west.nesinc.com) for more information
- Completion of an English composition course with a grade of B (3.0) or higher
- Adequate academic major preparation. Please see an advisor from the academic major department prior to submitting an application to Secondary Education or consulting with a Secondary Education advisor. The academic major departments will participate in review and recommendations for admission
- Consideration will be given to those applicants with endorsements in academic areas of current critical need

### *Advising and Orientation*

Upon acceptance, each student is assigned a Secondary Education faculty advisor. **All newly accepted students must attend a required orientation and advising session before beginning first quarter classes.** Students may be dropped from Secondary Education for failing to attend the required orientation.

### *Program Continuation*

Students admitted to the Woodring College of Education must meet specified requirements throughout the course of their teacher education program in order to remain in the program.

### *Requirements Upon Program Admission*

- Completion of an *Institutional Application for a Teacher's Certificate and Character and Fitness Supplement*, and background checks as described below under *Character and Fitness*
- Completion of the Woodring College of Education Prevention of Sexual Harassment Training
- Completion of the Woodring College of Education Blood-Borne Pathogens Training

### *Character and Fitness*

The Washington Administrative Code requires applicants for teacher certification to give evidence of "good moral character and personal fitness." Students provide evidence of character and fitness through two separate but related processes:

- Institutional Application for a Teacher's Certificate and Character and Fitness Supplement, provided to students upon acceptance into the program. The application for certification requires candidates to answer questions regarding professional fitness, criminal history and personal conduct. Students with "yes" responses must report to the certification officer in Miller Hall 150 before registering for classes.
- Washington State Patrol and FBI background checks through a fingerprinting process. Procedures and fee information are provided to students upon acceptance into the program.

**No student in a teacher education program may participate in a University-sponsored activity in the public schools until cleared by the Washington State Patrol, or in some cases, investigated and then cleared by the Washington State Office of Superintendent of Public Instruction.** Clearances are validated for specified time frames. Students must maintain character and fitness clearance until they have been recommended for a residency teacher certificate following completion of the teacher education program. In addition to the Washington state character and fitness requirements noted above, students must abide by the Woodring College of Education conduct policies acknowledged in the Student Conduct and Requirements Agreement, which is submitted with program application materials.

### *General Retention Requirements*

- Students must maintain at least a 2.75 GPA (graduate students a 3.0 GPA), beginning with the quarter they are notified of admission to Secondary Education. This requirement applies even to quarters where no education courses are being taken. Students who fail to meet this standard will receive a letter advising them that they have been dropped from the program.

- Students must earn a grade of C (2.0) or better in both the professional education sequence and in all courses required for the endorsement
- Students must successfully complete a minimum of one certification course each calendar year
- Students must demonstrate a high level of competence in the English language. Those who have a difficulty in their verbal and/or written communications should expect to seek remediation before beginning the internship
- Students are responsible for compiling a portfolio illustrating the quality of their work in each professional education class.
- Students must complete all certification and endorsement course work
- Students are required to conduct themselves in a professional manner, in terms of moral code, use of written or verbal language, abstention from sexual harassment, gender, ethnic and racial bias

### *Program Completion*

To qualify for program completion and recommendation for state of Washington residency certification, students must complete the following requirements and assessments:

- A baccalaureate or higher-level degree from a regionally accredited college or university
- A state-approved, performance-based teacher preparation program that includes preparation in an endorsable subject area, teaching methodology, and an internship
- Evidence of good moral character and personal fitness
- Minimum scores set by the state of Washington on the Washington Educator Skills Test (WEST-E) for the qualifying endorsement area(s) required by the teacher preparation program
- Completion of the Washington Performance-based Pedagogy Assessment
- Successful completion of the student teaching internship as shown by performance on the WWU Intern Development and Evaluation System (IDES)
- Students who interrupt enrollment in a teacher education program for more than two consecutive quarters (summer quarter not included) must meet all program admission, completion and certification requirements in place for the quarter in which they expect to return

## **Other Departmental Information**

### *Internships*

All secondary internships are a **semester** in length and require students to teach under the direct supervision of a certified teacher in a school setting. While sequences of activities differ within different placements, generally speaking, interns spend time early in the semester being acclimated to the school, students and affiliated clinical faculty (cooperating teacher), and begin teaching by assuming responsibility for one class per day for a period of time and gradually work toward assuming responsibility for teaching four to five classes per day for the final eight to ten weeks of the semester.

Teaching internships will begin upon completion of all certification course work and upon a recommendation of the secondary faculty. The secondary faculty review the list of interns for the forthcoming semester internship and review the portfolios of any students whom they feel may not be competent to student teach.

Recommendation by the secondary faculty is based on an evaluation of the student's competence in the following:

- written communication
- verbal communication
- presentation skills
- working with students from racial and ethnic populations other than his/her own, and with special needs students
- academic major requirements
- student portfolio
- Teacher Education Standards and Secondary Education Department Code of Ethics

## SECONDARY EDUCATION

Should the faculty question the readiness of the student for the internship, a conference with a faculty review committee will be arranged, at which time faculty concerns will be presented to the student. The student will have the opportunity to defend the materials viewed by the faculty and bring forth any supporting evidence. Following the conference the faculty will make one of the following decisions: 1) approval to begin the internship, 2) develop a plan for monitoring specific behaviors during the internship, 3) develop a plan for remediation, delaying the internship, or 4) drop the student from the program.

The semester internship spans two academic quarters. Students must successfully complete the entire semester to receive credit for the internship and recommendation for certification.

### *Application for Internship*

The Office of Field Experiences is the service agency of the College of Education which seeks placements for prospective interns. Students must have completed a residency teacher certificate application packet including endorsement evaluation, and Washington State Patrol/FBI fingerprinting before OFE will seek an internship placement.

Before commencement of the internship, passing scores on the WEST-E for each endorsement must be submitted, all education and endorsement course work and practica must be completed, and fingerprint/character and fitness clearance must be valid. Students who interrupt enrollment for a quarter or more must meet the deadline for filing a returning student application.

OFE does not guarantee placements and reserves the right to place students anywhere within the WWU service area.

Placement in a school is contingent on:

- Fulfillment of all requirements (satisfactory academic work, education and endorsement program course work, and practica)
- Submission of passing scores on the WEST-E tests in their endorsement areas
- Availability of placements and supervision in specific subjects, grade levels, and specific geographic area
- Acceptance by P-12 school personnel
- Fingerprint clearance, and character and fitness clearance through the end of the internship

Students are required to interview with the certified teacher and/or school administrator at the school where the placement is being considered. A maximum of three interviews for an internship placement are arranged by OFE. Any subsequent placement after a voluntary or non-voluntary withdrawal from an internship is granted only by faculty recommendation following a case conference.

Time commitment to the internship requires seven clock hours daily Monday through Friday plus preparation time, seminars, and responsibilities outside the school. Students should not register for other course work, hold jobs, or obligate themselves to time-demanding commitments without the approval of the department chair and OFE.

Students must submit an application for an internship placement to OFE in January prior to a fall/winter internship or in April prior to a winter/spring internship. All out-of-area or special placement requests require a petition. Applications, placement locations, petitions, and other information are available in the Office of Field Experiences, Student Services, Miller Hall 150.

## **Additional Endorsement**

### **Humanities — Middle Level - Additional Endorsement**

Department of Secondary Education, Woodring College of Education

**29-41 credits**

### **Introduction/What is the Study of Humanities?**

This additional endorsement program must be accompanied by the professional preparation program in Secondary Education, and preparation for an English Language Arts or Social Studies endorsement. Professional education program admission, completion, and teacher certification requirements are provided within this *Secondary Education* section of the catalog.

Secondary Education students who complete this program will build on their preparation for an English Language Arts or Social Studies endorsement to earn an additional endorsement in Middle Level Humanities. The Middle Level-Humanities endorsement prepares individuals to teach these core subjects and an integrated language arts/social studies core block classroom in the middle and junior high school.

### **Why Consider a Middle Level Additional Endorsement in Humanities?**

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

#### **Grade Requirements**

Students must earn a grade of C (2.0) or better in the Secondary Education professional program and in all courses required for the endorsement

#### Requirements

##### Middle School Pedagogy

- SEC 450 - Introduction to Middle Schools

##### Content and Methods — Option I or Option II

##### Option I - Requirements

#### **English Language Arts Endorsement**

See English for a description of the major in English – Literature Emphasis with Teaching Endorsement leading to an endorsement in English Language Arts.

#### **Social Studies Supporting Component**

- ENVS 204 - Human Geography
- HIST 103 - Introduction to American Civilization: American History to 1865
- HIST 104 - Introduction to American Civilization: American History Since 1865
- HIST 391 - History of the Pacific Northwest
- One course from:
  - HIST 111 - Introduction to Western Civilization: Prehistory to 476
  - HIST 121 - World History to 500 (preferred)
  - PLSC 250 - The American Political System
  - SEC 426 - Social Studies for the Secondary School
- One course from:
  - ECON 206 - Introduction to Microeconomics
  - ECON 446 - Economics for the Teacher (preferred)



## SECONDARY EDUCATION

Option II - Requirements

### **Social Studies Endorsement**

See Social Studies Education for majors leading to the endorsement in Social Studies. Students earning the Middle Level-Humanities additional endorsement under Option I should include HIST 111 in their selection of history courses for the Social Studies endorsement.

### **English Language Arts Supporting Component**

- ENG 202 - Writing About Literature
- ENG 370 - Introduction to Language
- ENG 443 - Teaching English Language Arts in the Secondary Schools I
- ENG 347 - Studies in Young Adult Literature
- One course from:
  - ENG 301 - Introduction to Writing Studies
  - ENG 302 - Introduction to Technical and Professional Writing
  - ENG 350 - Introduction to Creative Writing
  - ENG 371 - Introduction to Rhetoric and Rhetorical Analysis

Additional Requirements

### **Secondary Education Undergraduate and Post-baccalaureate Professional Program Requirements (68 credits)**

- SEC 301 - Educational Psychology I: Development and Individual Differences
- SEC 302 - Educational Psychology II: Motivation, Learning and Assessment
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools
- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching Laboratory
- SEC 435 - Middle Level Practicum
- SEC 436 - Secondary School Practicum
- SEC 444 - Supporting Teaching and Learning with Technology
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

## **Master of Education**

### **Master in Education, MEd**

*Woodring College of Education*

This program is not currently accepting new students. For further information contact the Graduate School, Western Washington University, 516 High St., Bellingham, WA 98225-9037, 360-650-3170, [gradschool@wwu.edu](mailto:gradschool@wwu.edu).

# Master in Teaching

## Master in Teaching, Non-Thesis, MIT

*Woodring College of Education*

### Graduate Faculty

**Burgess, Donald**, PhD.

**Harwood, Angela**, PhD, graduate advisor.

**Larson, Bruce**, PhD.

**McClanahan, Lauren**, PhD., graduate advisor.

**Nolet, Victor**, PhD.

**Romano, Rosalie**, Ph.D.

**Sheppard, Shelby L.**, PhD., graduate advisor.

**Ware, Molly**, PhD.

**Wolpow, Ray**, PhD.

### Program Description

This degree program is designed for candidates who wish to complete a master's degree while gaining state of Washington residency certification. Candidates must have completed a baccalaureate degree and academic preparation for a qualifying endorsement. This degree program combines the endorsement preparation with a graduate-level program of certification course work to produce a Master in Teaching program. This degree is firmly backed by current research of effective teaching and reflects a conceptual framework which embraces three basic strands in education: artistic, scientific and professional. Completion of the MIT sequence usually takes two years.

The MIT program is available on the Bellingham campus and at our Everett site.

### Goals

The program prepares candidates to teach at the secondary school level (middle and high school).

### Prerequisites/Qualification Examination

Candidates must meet the admission requirements of the Graduate School (see Graduate School Admissions section in this catalog) as well as the following department requirements:

- Graduate Record Exam, General Test, for exams taken before August 2011, a combined minimum score of 1,000 on the Verbal and Quantitative, and a minimum of 4.5 on the Analytic Writing. For the "Revised" General Test (beginning August 2011), the combined minimum Verbal Reasoning and Quantitative Reasoning score of 297 on the new scale and 4.5 Analytic Writing. Miller Analogies Test, with a score of 403. Test scores are not required if an applicant holds an advanced degree
- Minimum passing scores on all three subtests (reading, math, writing) of The Washington Educator Skills Test - Basic (WEST-B). For schedule and registration information, refer to the WEST-B website, [www.west.nesinc.com](http://www.west.nesinc.com). Out-of-state applicants may meet this requirement through alternative tests and should contact the Secondary Education Department for further information
- English composition course with a grade of B or better
- Interview by Secondary Education faculty. Details will be provided once applications are received

**Candidates for the Master in Teaching Degree** must have completed a baccalaureate degree and academic preparation for a qualifying endorsement, including a minimum 80% of required endorsement coursework (see listing of WWU academic majors in the Secondary Education section of the current catalog). The MIT leads to a recommendation to the Office of the Superintendent of Public Instruction for State of

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Washington residency teacher certification. Teacher certification candidates must sign the "Student Conduct Requirements and Agreement" form, complete **Character and Fitness** requirements, the sexual harassment prevention education workshop, and the blood-borne pathogen workshop. It is possible to be awarded certification prior to completion of master's degree requirements; the MIT will be awarded only to those who successfully complete all requirements for Washington state certification, including a successful student internship. Therefore, the MIT cannot be awarded without certification.

### **Program Application/Admission Requirements**

Applications and supporting materials must be received by the Graduate School for the corresponding quarter of admission by the following deadlines for priority consideration:

- Fall quarter: April 1
- Winter quarter: October 1
- Everett location (summer quarter only):\* March 1  
\*This off-campus, summer-start program admits students only for summer; Late applications accepted only on a space available basis.

Required supporting materials include:

- Résumé
- A personal statement that describes your experience(s) with adolescents and background as it applies to the teaching profession. The Secondary Education faculty believe experience with diverse, multicultural populations benefit prospective teachers. Make sure to include any and all background or experience(s) you have had with diverse populations
- Three letters of recommendation that address 1) your educational potential to do graduate-level course work; 2) your successful experience with adolescents and your experience with diverse populations; and 3) character and maturity
- English competency:  
Completion of an approved English composition course, with a grade of B or higher. ENG 101, 201, 202 and 301 at Western or equivalent courses fulfill this requirement.
- An interview with Secondary Education faculty
- Student Conduct:  
The **Student Conduct Requirements and Agreement** portion of the supplemental Woodring College application must be completed

Students' applications are first reviewed by the Graduate School before consideration for admission to a specific program.

No graduate Record Exams (GRE) or Miller Analogies Test (MAT) is required if an applicant holds an advanced degree.

### **Advising and Orientation**

Upon acceptance, each student is assigned an education graduate faculty advisor. All newly accepted secondary students must attend a required orientation and advising session before beginning first quarter classes. Students may be dropped from Secondary Education for failing to attend the required orientation.

### **Program Length**

All requirements for the degree must be completed within five years of the initial quarter of registration. Normally, full-time graduate students complete the program in two years. This time frame could be extended if additional course work is needed to meet department or state endorsement requirements.

### **Program Continuation**

Students admitted to the Woodring College of Education must meet specified requirements throughout the course of their teacher education program in order to remain in the program.

## Requirements Upon Program Admission

- Completion of an **Institutional Application for a Teacher’s Certificate and Character and Fitness Supplement**, and background checks as described below under **Character and Fitness**
- Completion of the Woodring College of Education Prevention of Sexual Harassment Training
- Completion of the Woodring College of Education Blood-Borne Pathogens Training

## Character and Fitness

The Washington Administrative Code requires applicants for teacher certification to give evidence of “good moral character and personal fitness.” Students provide evidence of character and fitness through two separate but related processes:

- Institutional Application for a Teacher’s Certificate and Character and Fitness Supplement, provided to students upon acceptance into the program. The application for certification requires candidates to answer questions regarding professional fitness, criminal history and personal conduct. Students with “yes” responses must report to the certification officer in Miller Hall 250 before registering for classes.
- Washington State Patrol and FBI background checks through a fingerprinting process. Procedures and fee information are provided to students upon acceptance into the program.

**No student in a teacher education program may participate in a University-sponsored activity in the public schools until cleared by the Washington State Patrol, or in some cases, investigated and then cleared by the Washington State Office of Superintendent of Public Instruction.** Clearances are validated for specified time frames. Students must maintain character and fitness clearance until they have been recommended for a residency teacher certificate following completion of the teacher education program. In addition to the Washington state character and fitness requirements noted above, students must abide by the Woodring College of Education conduct policies acknowledged in the Student Conduct and Requirements Agreement, which is submitted with program application materials.

## General Retention Requirements

- Students must maintain at least a 2.75 GPA (graduate students a 3.0 GPA), beginning with the quarter they are notified of admission to Secondary Education. This requirement applies even to quarters where no education courses are being taken. Students who fail to meet this standard will receive a letter advising them that they have been dropped from the program.
- Students must earn a grade of C (2.0) or better in both the professional education sequence and in all courses required for the endorsement
- Students must successfully complete a minimum of one certification course each calendar year
- Students must demonstrate a high level of competence in the English language. Those who have a difficulty in their verbal and/or written communications should expect to seek remediation before beginning the internship
- Students are responsible for compiling a portfolio illustrating the quality of their work in each professional education class.
- Students must complete all certification and endorsement course work
- Students are required to conduct themselves in a professional manner, in terms of moral code, use of written or verbal language, abstention from sexual harassment, gender, ethnic and racial bias

## Program Completion

To qualify for program completion and recommendation for state of Washington residency certification, students must complete the following requirements and assessments:

- A baccalaureate or higher-level degree from a regionally accredited college or university
- A state-approved, performance-based teacher preparation program that includes preparation in an endorsable subject area, teaching methodology, and an internship
- Evidence of good moral character and personal fitness

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- Minimum scores set by the state of Washington on the Washington Educator Skills Test (WEST-E) for the qualifying endorsement area(s) required by the teacher preparation program
- Completion of the Washington Performance-based Pedagogy Assessment
- Successful completion of the student teaching internship as shown by performance on the WWU Intern Development and Evaluation System (IDES)
- Students who interrupt enrollment in a teacher education program for more than two consecutive quarters (summer quarter not included) must meet all program admission, completion and certification requirements in place for the quarter in which they expect to return

### Requirements

- Research and Foundations — 12 credits
  - SEC 501 - Introduction to Educational Research Inquiry for Secondary Teachers
  - SEC 512 - Seminar in Educational Philosophy
  - SEC 513 - Seminar in Socio-Cultural and Legal Issues in Education
- Secondary Master's Requirements — 34 credits
  - SEC 433 - Teaching Laboratory
  - SEC 435 - Middle Level Practicum
  - SEC 436 - Secondary School Practicum
  - SEC 510 - Teacher As Communicator
  - SEC 525 - Content Reading, Writing and Communication in Secondary Schools
  - SEC 531 - Teaching Adolescents
  - SEC 532 - Curriculum and Instruction in Secondary Schools
  - SEC 533 - Assessment and Professional Development in Secondary Schools
  - SEC 534 - Management, Motivation and Discipline in the Secondary Schools
  - SPED 510 - Secondary Students With Special Needs
  - I T 544 - Instructional Technology and Education
- Internship (24 cr)
  - SEC 595 - Graduate Internship
- Research Course (1-6 cr)
  - SEC 691 - Research Seminar

### Additional Information

#### **Competency in Instructional Technology**

Students admitted to programs in the Woodring College of Education are required to possess competence in the use of instructional technology in education prior to completion of their program and, when applicable, prior to being recommended for certification. Procedures for demonstrating or developing competence are available in Miller Hall 204.

#### **Comprehensive Assessment**

Woodring College of Education students in the non-thesis option are required to complete a comprehensive assessment. The format, timeline and criteria are defined by specific departments. For procedures, students should see their graduate advisors.

#### **Second Master's Degree**

Enrollment must be for a single MEd, MA or MIT program. Students who have earned an MEd or MIT may apply for admission to another MEd program but all requirements of the second program must be met (with

possible allowance for some course work taken in the first program). However, all programs must be completed with the minimum number of required credits.

**NOTE:** Due to a review and revision process which may affect Woodring College of Education programs and courses, the information contained in the Education section of this catalog is subject to change.

Remaining program and certification requirements can be found in the Secondary Education section of this catalog.

## Minor

### Education and Social Justice Minor

Combined minor offered by Woodring College of Education, Fairhaven College of Interdisciplinary Studies and American Cultural Studies Program

#### 31-32 Credits

#### Introduction/What is the Study of Education and Social Justice?

The Education and Social Justice Minor helps prepare youth workers, professional educators, counselors, and community organizers to understand and effectively use social justice frameworks, critical reflection and praxis to address equity issues in formal and informal educational settings, nonprofit, public service, and private organizations.

Key concepts that thread through the program include: critical and decolonizing theories and pedagogies, studies of the social and political context of education in its broadest sense, the construction of individual and collective identities, systems and mechanisms of social and cultural reproduction, critical consciousness, and resources, forms of resistance and processes of empowerment.

#### Why Consider an Education and Social Justice Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Students may declare the minor through Fairhaven College (Contact: Marie Eaton), Woodring College of Education (Contact: Rosalie Romano, Victor Nolet, Trula Nicholas or Bruce Larson) or American Cultural Studies (Contact: Lawrence Estrada).

#### Grade Requirements

A grade of S or C- or better is required for this minor.

#### Program Requirements

Core (12 Credits)

- EDUC 411 - Education and Social Justice
- FAIR 314E - Critical Pedagogy
  - One of the following:

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- AMST 301 - Comparative Cultural Studies
- FAIR 366E - Comparative Cultural Studies

Electives (At least 16 Credits)

Choose at least 1 course from each category under advisement

Social/Political Context

- ANTH 484 - Intercultural Education
  - FAIR 319B - Current Issues in Law (topic approved by advisor)
  - FAIR 336B - Topics in Social Issues (topic approved by advisor, such as Education and Social Order)
  - SOC 361 - Sociology of Education
- One course from:
- ELED 310 - Education, Culture, and Equity
  - SEC 310 - Education, Culture, and Equity
  - SPED 310 - Education, Culture, and Equity

Equity Pedagogy

FAIR 311C - Alternatives in Education

- FAIR 336B - Topics in Social Issues
- One from:
- EDUC 412 - Seminar in Educational Equity
  - AMST 412 - Seminar in Educational Equity
- One from:
- EDUC 413 - Bridge Barriers w/Migrants
  - AMST 413 - Bridging Barriers with Migrant Youth
- One from:
- ELED 464 - Multicultural Education for Teachers
  - AMST 464 - Multicultural Ed for Teachers

Children & Youth in Society

- FAIR 322M - Memoirs and Memory: Childhood in America
  - FAIR 336B - Topics in Social Issues (topic approved by advisor)
  - FAIR 448T - Risk and Resilience in Adolescent Girls: Development, Culture and Identity
  - HSP 315 - Human Development and Human Services
  - PSY 332 - Adolescent Development
  - SOC 380 - Sociology of Youth
- One from:
- ECE 435 - Child Abuse and Neglect
  - ELED 435 - Child Abuse and Neglect

Identity in Culture

- AMST 314 - Contemporary Latino/A Issues
- AMST 316 - Contemporary African American Issues
- ANTH 481 - Childhood and Culture
- FAIR 312E - Transgender Identities and Histories
- FAIR 313E - Queer Issues in Education
- FAIR 336B - Topics in Social Issues (topic approved by advisor)
- FAIR 374B - The Cultural Creation of Identity
- FAIR 436B - Advanced Topics in Social Issues (topic approved by advisor)
- HSP 455 - Diversity & Social Justice Dynamics
- PSY 119 - Psychology of Gender
- SAA 375 - Diversity in Higher Education and Student Affairs
- SOC 369 - Sociology of Race and Ethnicity

One from:

- AMST 315 - Contemporary American Indian Issues
- FAIR 399B - Contemporary American Indian Issues

One course from:

- ELED 310 - Education, Culture, and Equity
- SEC 310 - Education, Culture, and Equity
- SPED 310 - Education, Culture, and Equity

Praxis/Capstone (at least 4 credits)

EDUC 400 - Independent Applied Experience (by advisement)

- EDUC 414 - Topics in Social Justice Education
- FAIR 400 - Independent Applied Experience (by advisement)
- FAIR 414D - Special Topics in Social Justice Education

## State Issued Certificate Preparation (Non-Degree)

### Secondary Education Professional Program

Department of Secondary Education, Woodring College of Education

**68 credits**

#### Introduction/What is the Study of Secondary Education?

#### Why Consider a Secondary Education Professional Program?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Go to the Admission Requirements on the Secondary Education department page for more information.

#### Grade Requirements

Students must earn a grade of C (2.0) or better in the Secondary Education professional program and in all courses required for the endorsement.

#### Requirements

- SEC 301 - Educational Psychology I: Development and Individual Differences
- SEC 302 - Educational Psychology II: Motivation, Learning and Assessment
- SEC 310 - Education, Culture, and Equity
- SEC 410 - Dynamics of Teaching
- SEC 411 - Philosophical Foundations of Education
- SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools



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- SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards
- SEC 431 - Secondary School Methods II-Assessment and Long Term Planning
- SEC 432 - Secondary School Methods III - Management, Motivation and Discipline
- SEC 433 - Teaching Laboratory
- SEC 435 - Middle Level Practicum
- SEC 436 - Secondary School Practicum
- SEC 444 - Supporting Teaching and Learning with Technology
- SEC 495 - Internship - Secondary
- SPED 363 - Secondary Students With Special Needs

Academic content methods courses are required for content methods courses are required for all major endorsement areas. For specific course numbers and schedule information, students are advised to contact their academic major department advisor.

## Secondary Education Courses

### **SEC 301 - Educational Psychology I: Development and Individual Differences**

Principles of human development and individual differences as they relate to both academic and non-academic functioning. Emphasis on implications for P-12 classrooms.

**Prerequisites & Notes:** Admission to Woodring College of Education or permission of department chair.

Credits: 4

### **SEC 302 - Educational Psychology II: Motivation, Learning and Assessment**

Principles of human motivation and learning and their implications for P-12 classrooms; basic statistical and applied concepts used in assessment of student performance.

**Prerequisites & Notes:** SEC 301 or EDUC 301.

Credits: 4

### **SEC 310 - Education, Culture, and Equity**

Issues of culture and social justice as they impact education, schools, and teaching. Includes a service learning component.

**Prerequisites & Notes:** Admission to Woodring College of Education or permission of instructor or department chair.

Credits: 4

### **SEC 410 - Dynamics of Teaching**

Required of all secondary students the first quarter in the program. Methods and active learning of the use of visuals, vocals and verbals in becoming a better teacher/communicator in order to perfect teaching-learning as an expressive art. Examines differences in usage of the 3 'Vs' within multiple cultures.

**Prerequisites & Notes:** admission to Secondary Ed

Credits: 2

### **SEC 411 - Philosophical Foundations of Education**

This course examines the central concepts, basic premises and historical underpinnings that frame contemporary ideas of education and teachings practice.

**Prerequisites & Notes:** SEC 410

Credits: 4

### **SEC 415 - Analysis and Strategies of Teaching**

Systematic study of teaching; observation; analysis and development of teaching skills and strategies; individual projects.

**Prerequisites & Notes:** One course from educational psychology or foundations area, or instructor permission

Credits: 4

### **SEC 423 - Curricula in Basic Language Arts Skills in Secondary Schools**

Designed for those who will be working in development and implementation of curricula to meet new accountability standards. Involves study of these standards and work with actual public school materials.

**Prerequisites & Notes:** admission to a professional studies program  
Credits: 3

### **SEC 425 - Developmental Reading, Writing and Learning in Secondary Schools**

Developmental reading, writing and learning skills and strategies specific to content area instruction in the secondary school. Includes techniques for assessing texts, students' literacy levels; designing appropriate instruction; evolution of literacy definitions, academic language, and the integration of reading and writing with current K-12 Content Standards for instruction and assessment. May include field experience.

**Prerequisites & Notes:** SEC 431.  
Credits: 4

### **SEC 426 - Social Studies for the Secondary School**

Social studies methods, resources, curriculum, objectives, planning. For secondary certification.

**Prerequisites & Notes:** SEC 431 or SEC 533 or permission of instructor.  
Credits: 4

### **SEC 427 - Law-Focused Teaching and Curriculum**

Course to enable teachers to teach about criminal justice system, police, juvenile justice, consumer law, due process, etc. Provides teachers with tested classroom procedures, substantive law and field experience with justice agencies. Repeatable under different topics.

**Prerequisites & Notes:** junior standing  
Credits: 1-5

### **SEC 428 - Social Studies in the Secondary Curriculum**

Functions, programs and materials in the social studies.

**Prerequisites & Notes:** teaching experience or instructor permission  
Credits: 3

### **SEC 429A - Innovative Techniques in Social Studies**

Designed for pre-service and in-service teachers. Materials and techniques to effectively teach social studies methods courses: a) discussion, primary sources, simulations, map use; b) integration of social studies content, current events, inquiry, service learning; c) using technology to teach social studies.

**Prerequisites & Notes:** SEC 431 or teaching experience  
Credits: 1-4

### **SEC 429B - Innovative Techniques in Social Studies**

Designed for pre-service and in-service teachers. Materials and techniques to effectively teach social studies methods courses: a) discussion, primary sources, simulations, map use; b) integration of social studies content, current events, inquiry, service learning; c) using technology to teach social studies.

**Prerequisites & Notes:** SEC 431 or teaching experience  
Credits: 1-4

### **SEC 429C - Innovative Techniques in Social Studies**

Designed for pre-service and in-service teachers. Materials and techniques to effectively teach social studies methods courses: a) discussion, primary sources, simulations, map use; b) integration of social studies content, current events, inquiry, service learning; c) using technology to teach social studies.

**Prerequisites & Notes:** SEC 431 or teaching experience  
Credits: 1-4

### **SEC 430 - Secondary School Methods I - Instructional Strategies, Daily Planning, and Standards**

An exploration of secondary curricula, lesson planning, instructional strategies and their

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relationship to assessment and classroom management. Introduces methods to infuse multicultural perspective into instruction and use of multicultural educational resources.

**Prerequisites & Notes:** Admission to Secondary Education, co-req: SEC 410.  
Credits: 4

### **SEC 431 - Secondary School Methods II- Assessment and Long Term Planning**

Develop professional practices that align long-range planning with assessment strategies. Develop unit plans and collect evidence of student learning through formative and summative assessment. Articulate that planning and assessment are linked to: classroom and time management; differentiating instruction; problem-based learning and culminating projects; and, community contexts. Discuss field experiences.

**Prerequisites & Notes:** EDUC 301 or SEC 301; SEC 410; SEC 430 (or equivalent); coreq: SEC 435.  
Credits: 4

### **SEC 432 - Secondary School Methods III - Management, Motivation and Discipline**

Study of theories of behavior management, motivation, and disciplinary approaches. Exploration of family and community contexts and their implications for student behavior.

**Prerequisites & Notes:** SEC 430, SEC 431; concurrent registration in SEC 433, SEC 436  
Credits: 4

### **SEC 433 - Teaching Laboratory**

Videotaped lesson presentations; peer, instructor, and self-evaluations. S/U grading.

**Prerequisites & Notes:** SEC 431 or SEC 533 or permission of instructor; SEC 436 concurrent or permission of instructor.  
Credits: 1  
Grade Mode: S/U

### **SEC 434 - Service Learning**

Introduction to the pedagogy of service learning. Addresses the definition, rationale, service-learning techniques, and assessment. Students articulate

their own proposed service-learning curriculum. A 2-credit option for the course includes field-based practicum working with a school that is implementing a service-learning program. S/U grading.

Credits: 1-2  
Grade Mode: S/U

### **SEC 435 - Middle Level Practicum**

In school practicum focused on helping early adolescents learn. Includes applications of technology to enhance teaching and learning. S/U grading.

**Prerequisites & Notes:** Concurrent registration in SEC 431 or SEC 533 or permission of instructor.  
Credits: 1-2  
Grade Mode: S/U

### **SEC 436 - Secondary School Practicum**

Assigned placement at the high school level with opportunity to assist and learn from cooperating teacher. S/U grading.

**Prerequisites & Notes:** Co-reqs: SEC 433; and SEC 432 or SEC 534; or permission of instructor.  
Credits: 1  
Grade Mode: S/U

### **SEC 444 - Supporting Teaching and Learning with Technology**

Learn and improve skills necessary to effectively integrate technology for teaching and learning into professional teaching practices, including planning, assessment, and classroom management. Lab course tied to practicum experience.

**Prerequisites & Notes:** SEC 430; IT 344 or portfolio of basic technology skills; co-requisites: SEC 431 and SEC 435.  
Credits: 2

### **SEC 450 - Introduction to Middle Schools**

Designed to give students an overview of middle school curriculum and instruction. Examines various forms of curricula currently used in middle schools, developmental issues concerning middle school students and appropriate instructional strategies. Provides an opportunity to closely examine issues through on-site visits to middle

schools in the area.

Credits: 4

**SEC 451 - Curriculum and Instruction in Middle Schools**

Interdisciplinary middle school curricula; team planning strategies; thematic unit and lesson development; instructional and skill building strategies.

**Prerequisites & Notes:** EDF 310, PSY 351; PSY 316 or PSY 352 or PSY 353; (SEC 410 for SEC students)  
Credits: 4

**SEC 452 - Intensive Middle School Practicum**

In-school observation with a focus on the needs of early adolescents; assisting teachers in their classrooms. Reflective journal writing and individual inquiry projects required. S/U grading.

**Prerequisites & Notes:** Admission to Woodring College of Education and SEC 450.  
Credits: 3  
Grade Mode: S/U

**SEC 464 - Multicultural Education for Teachers**

Preparation for teaching in a multicultural society. Participants will learn how to design a curriculum that reflects diversity and an instructional methodology that promotes the learning of diverse students.

Credits: 4

**SEC 480 - Evaluating Pupil Growth**

Evaluative techniques related to significant or complex objectives; assessing outcomes of innovative teaching.

**Prerequisites & Notes:** teaching experience or instructor permission; for experienced teachers or research workers  
Credits: 3

**SEC 481 - Working With Student Teachers**

Techniques for the orientation of student teachers, major problems which confront student teachers, and evaluation of their achievement.

**Prerequisites & Notes:** teaching experience  
Credits: 3

**SEC 490 - Teaching Laboratory**

Diagnosis of students, lesson preparation, videotaped peer teaching, analysis of teaching, lesson redesign.

**Prerequisites & Notes:** program advisor permission  
Credits: 4

**SEC 490A - September Experience**

Observation and participation in the opening of school. S/U grading.

**Prerequisites & Notes:** department permission  
Credits: 2-3  
Grade Mode: S/U

**SEC 491 - Public School Practicum**

Practicum experience in a school setting. Designed to provide students with the opportunity to practice and receive feedback on instruction, management, assessment, and professionalism.

**Prerequisites & Notes:** SPED 484  
Credits: 4

**SEC 495 - Internship - Secondary**

Supervised teaching experience to develop and demonstrate teaching competence at the junior high/middle school or senior high school level. Interact with diverse students and utilize planning and teaching strategies which attend to needs of diverse populations. Repeatable to a maximum of 24 cr. S/U grading.

**Prerequisites & Notes:** recommended for supervised teaching  
Credits: 2-18  
Grade Mode: S/U

**SEC 501 - Introduction to Educational Research Inquiry for Secondary Teachers**

History, paradigms, and theories of action research in school settings. Examining and interpreting information about student performance; designing and planning school-based inquiry to improve professional teaching practice. May include community service.

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**Prerequisites & Notes:** SEC 531 or permission of instructor.  
Credits: 4

### **SEC 510 - Teacher As Communicator**

Methods and means of becoming a more effective communicator. Examination and practice of oral, visual and listening communication skills as part of the teaching/learning process. Review of current research in the area of teaching communication practice.

**Prerequisites & Notes:** Admission to graduate program or permission of program advisor.  
Credits: 3

### **SEC 512 - Seminar in Educational Philosophy**

Examines the central concepts, basic premises and underlying assumptions of controversial issues in contemporary educational practice.

**Prerequisites & Notes:** Admit to Secondary MIT or instructor permission  
Credits: 4

### **SEC 513 - Seminar in Socio-Cultural and Legal Issues in Education**

This seminar examines the larger cultural issues affecting education within a social, political and legal framework.

**Prerequisites & Notes:** SEC 512 or permission of instructor.  
Credits: 4

### **SEC 518 - Current Issues in Education**

Examination and discussion of current issues in contemporary education. Repeatable.

Credits: 1-5

### **SEC 518Y - Current Issues in Education**

Examination and discussion of current issues in contemporary education. Repeatable.

Credits: 1-5

### **SEC 520 - Teaching and Administering in Schools Abroad: K-12**

Practicum of education in various countries abroad. Preparation includes reading, test questions,

research paper assignment spring quarter. Practicum requires supervised team teaching and/or administering in a school for one week.

Credits: 3

### **SEC 521 - Summer Study Abroad**

Lectures and experiences in philosophy, administration, culture, history and curriculum integration in various schools abroad. Seminars on how principles and practices in schools abroad can be adapted to the context of U.S. schools. Culminating project is required.

Credits: 6

### **SEC 524 - Seminar in Secondary School Language Arts Curriculum**

Planning and developing curriculum in language, literature and composition. Advanced study in specialized curriculum design and materials.

Credits: 2-4

### **SEC 525 - Content Reading, Writing and Communication in Secondary Schools**

Techniques for integrating the Essential Academic Learning Requirements in reading, writing and communication into the various subject areas taught in secondary schools. Strategies for assessing, teaching, and supporting students of diverse skill levels in literacy and with special needs through the context of content-area courses. May include a supervised field experience.

**Prerequisites & Notes:** SEC 533 or permission of instructor.  
Credits: 4

### **SEC 531 - Teaching Adolescents**

Advanced study of adolescents in educational settings. Application of the biopsychosocial theories of development of the adolescent to secondary classroom teaching and learning. Define and examine multicultural issues and their effect on the developing adolescent. Communicate and interact with parents and community agencies to support student learning. Includes community service learning component.

**Prerequisites & Notes:** program advisor permission

Credits: 4

**SEC 532 - Curriculum and Instruction in Secondary Schools**

Planning and development of curriculum. Advanced study of curriculum design, instructional strategies, unit planning and lesson design. Emphasis on current studies and trends. Introduces methods to infuse multicultural perspective into instruction and the use of multicultural educational resources. Independent research.

**Prerequisites & Notes:** Admission to Secondary MIT or permission of instructor.  
Credits: 4

**SEC 533 - Assessment and Professional Development in Secondary Schools**

Design effective lessons, study a variety of assessment strategies. Create curricula and assessments that address and support the many aspects of diversity. Student portfolio review, certification requirements, legal rights and responsibilities of the profession.

**Prerequisites & Notes:** SEC 532; co-requisite SEC 435; or permission of instructor.  
Credits: 4

**SEC 534 - Management, Motivation and Discipline in the Secondary Schools**

Theories of adolescent development, including issues of diversity as a basis for creating effective learning environments. Emphasis on classroom models of management, creating an individual management plan, and the importance of student motivation.

**Prerequisites & Notes:** SEC 533; co-requisite: SEC 436 and SEC 433; or permission of instructor.  
Credits: 4

**SEC 555 - Middle School Curriculum Designs and Instructional Strategies**

Current trends in middle-level education; includes a review of developing curriculum ideas endorsed by the National Middle School Association. Physical, social and emotional growth of early adolescents; instructional strategies for middle-level schools; requires topical or action research project.

**Prerequisites & Notes:** SEC 531; co-requisite: SEC 452 or SEC 434  
Credits: 4

**SEC 580 - Seminar in Secondary Curriculum**

Historical and philosophical perspectives on school curriculum as these relate to modern curricula.

Credits: 4

**SEC 582 - Analysis of Research in Secondary Education**

Examination and analysis of research related to contemporary issues in secondary education.

**Prerequisites & Notes:** EDU 501  
Credits: 4

**SEC 590 - Seminar in Analyzing Teaching and Supervision**

Advanced studies in the principles of supervision; utilization of instructional resources and the evaluation and improvement of teaching.

**Prerequisites & Notes:** SEC 481 or department permission  
Credits: 3

**SEC 595 - Graduate Internship**

Supervised teaching experience to develop and demonstrate teaching competence at the middle or senior high school level. Interact with diverse students and utilize planning and teaching strategies which attend to needs of diverse populations. Repeatable to a maximum of 24 cr. S/U grading.

**Prerequisites & Notes:** department permission  
Credits: 2-18  
Grade Mode: S/U

**SEC 598 - Advanced Practicum: Secondary Education**

Supervised teaching performance. Participants develop plans and procedures designed for the improvement of instruction and submit a plan to the course instructor and appropriate public school authority for classroom implementation and evaluation. Repeatable to a maximum of 12 cr. S/U grading.

## SECONDARY EDUCATION

**Prerequisites & Notes:** graduate advisor permission  
Credits: 2-12  
Grade Mode: S/U

### **SEC 639 - Current Topics in Education**

Studies of current topics in Secondary Education.

**Prerequisites & Notes:** MA degree; instructor permission  
Credits: 1-5

### **SEC 690 - Thesis**

Research study under the direction of a faculty committee. S/U grading.

**Prerequisites & Notes:** advancement to candidacy; graduate committee approval  
Credits: 1-9  
Grade Mode: S/U

### **SEC 691 - Research Seminar**

Graduate research under the direction of a program advisor/committee. Repeatable to a maximum of 6 cr. S/U grading.

**Prerequisites & Notes:** graduate committee/program advisor approval  
Credits: 1-6  
Grade Mode: S/U

# Special Education and Education Leadership

## Introduction

The Department of Special Education & Education Leadership is comprised of three components: Special Education programs designed to prepare teachers for P-12 schools or community-based agencies, Educational Administration programs that prepare educational leaders in the P-12 schools, and Compass 2 Campus (C2C). The Western Washington University C2C program is designed to increase access to higher education by providing an opportunity for 5th-12th grade students from traditionally underrepresented and diverse backgrounds in Whatcom and Skagit counties to be mentored by university students.

The Special Education component offers professional education programs that lead to recommendation to the Office of the Superintendent of Public Instruction for residency teacher certification in the state of Washington. Some programs have a non-certification option. The programs in special education are designed to *prepare thoughtful, knowledgeable, and effective special education teachers for a diverse society.*

Consistent with state and national standards for what special education teachers should know and be able to do, the curriculum is a carefully sequenced academic and professional program that is grounded in current research on effective teaching and learning. This sequence includes a significant amount of training in best practices with an emphasis on Curriculum-Based Evaluation (CBE) and Response to Intervention (RtI).

Programs which address residency teacher certification require students to complete an academic major, the teacher certification sequence and an internship. Special Education offers two academic majors: Special Education and Early Childhood Special Education. Special Education majors may also complete the dual endorsement program and earn endorsements to teach both special education and elementary education. Upon completion of the program, successful candidates will be recommended to the Superintendent of Public Instruction to receive a certificate to teach in their endorsement area(s).

There are two definitions of special education. One is the education of students with disabilities. The other is the application of exceptional teaching. We in the special education department at Western Washington University believe very strongly in the second definition. We think it is our mission to prepare exceptional teachers and, while students who have disabilities often require the services of such teachers, we also believe that there are many other students who can benefit from high-quality instruction. We also think that there is much satisfaction to be gained from the acquisition of the highest levels of teaching skill and that the teachers trained in our program benefit professionally and personally from the acquisition of these skills. That is why the word "special" in our title is a source of pride to us and to our graduates.

## Information

Individuals interested in teacher certification can obtain information from the Website at [www.wce.wvu.edu/Admiss](http://www.wce.wvu.edu/Admiss). Inquiries should be directed to Woodring College Teacher Education Admissions, Student Services, Miller Hall 150, phone 360-650-3313, e-mail address [TeacherEdAdmissions@wwu.edu](mailto:TeacherEdAdmissions@wwu.edu). Written inquiries may be addressed to Teacher Education Admissions, Western Washington University, MS-9090, 516 High St., Bellingham, WA 98225-9090.

Information about special education programs may be obtained by visiting the department Website at [www.wce.wvu.edu/Depts/SPED](http://www.wce.wvu.edu/Depts/SPED). Applicants who wish to speak with a faculty advisor may request an appointment through the special education department in Miller Hall 200 or by phone at 360-650-3330 or by e-mail to [Pam.Hamilton@wwu.edu](mailto:Pam.Hamilton@wwu.edu).

Those persons interested in graduate programs in special education should consult the *Graduate School* section of this catalog or contact the Graduate School directly, phone 360-650-3170, e-mail [gradschl@wwu.edu](mailto:gradschl@wwu.edu). Written inquiries may be addressed to the Graduate School, Old Main 530, MS-9037, Western Washington University, 516 High St., Bellingham, WA 98225-9037.



# SPECIAL EDUCATION AND EDUCATION LEADERSHIP

## Faculty

**GAIL COULTER** (2008) Chair and Associate Professor. BA, MA, California State University-Chico; PhD, University of Oregon.

**WARREN ALLER** (1993) Senior Instructor. BS, University of Idaho; MEd, Western Washington University.

**JOSEPH HUNTER** (2012) Assistant Professor. BSEd, MSED, Southern Oregon State College; EdD, Portland State University.

**KEITH J. HYATT** (2002) Professor. BS, MS, University of Idaho; EdS, EdD, University of Nevada-Las Vegas.

**BRIDGET KELLEY** (1995) Associate Professor. BS, University of Pittsburgh; MEd, Arizona State University; PhD, University of Washington.

**CHUCK LAMBERT** (2004) Associate Professor. BEd, Gonzaga University; MA, San Francisco State University; PhD, Ohio State University.

**DONALD E. LARSEN** (2005) Associate Professor & Director of Education Administration (2005) BA, Seattle Pacific University; MA, Pacific Lutheran University; PhD, Washington State University.

**JENNY PARKER** (2003) Senior Lecturer. BA, University of Washington; MEd, Antioch University, Seattle.

**WAYNE T. ROBERTSON** (1992) Instructor. BAE, MEd, Central Washington University; EdD, University of Washington.

**LEANNE K. ROBINSON** (2002) Professor. BAE, Central Washington University; MEd, Western Washington University; PhD, Washington State University.

**ROGER H. SASNETT** (2012) Assistant Professor, MEd, Central Washington University, PhD., Ohio State University.

**LINDA SCHLEEF** (1997) Senior Instructor. BAE, MEd, Western Washington University.

**BETH STICKLEY** (2003) Senior Instructor. BA, University of Northern Iowa; MEd, Western Washington University.

**TRACY THORNDIKE-CHRIST** (2005) Associate Professor. BA, MS, Western Washington University; PhD, University of Nebraska-Lincoln.

## Special Education Programs

Students at Western Washington University may choose from five initial teacher preparation options that result in residency certification with an endorsement to teach special education in the state of Washington. The No Child Left Behind "highly qualified teacher" requirement may impact the eligibility for certain teaching assignments in a core academic subject(s). Students are responsible for consulting with an advisor for further information on NCLB.

- Early Childhood Special Education Major
  - Completion of this major and the required professional education courses results in a BA in Education. Students in this major typically seek employment in private child development centers and governmental agencies; they do not qualify for a teaching certificate.
- Early Childhood Special Education Major (P-3)
  - Completion of this major and required professional education courses results in a BA in Education with recommendation for a Washington State certificate with endorsement in Early Childhood Special Education, Preschool through Grade 3 (P-3). Students have the option of completing additional coursework to add the Special Education (P-12) endorsement or the Early Childhood Education endorsement for P-3 general education.
- Special Education Major
  - Completion of this major and the required professional education courses results in a BA in Education. Students who complete this major typically seek employment in non-school settings, such as health and human services and non-profit organizations; they do not qualify for a teaching certificate.
- Special Education Major (P-12)

- Completion of this major and the required professional education courses results in a BA in Education with recommendation for a Washington State teaching certificate and an endorsement in Special Education, Preschool through Grade 12 (P-12).
- Special Education Major (P-12) with Elementary Education Endorsement (Dual Endorsement)
  - Completion of this major and the required elementary professional education courses results in a BA in Education with recommendation for a Washington State teaching certificate with endorsements in Special Education (P-12) and Elementary Education.
- Special Education Endorsement (P-12) with Secondary Education
  - Completion of coursework leading to a P-12 Special Education endorsement can be arranged in coordination with a secondary education department advisor.
- Post-baccalaureate Special Education (P-12)
  - Completion of Special Education coursework and required professional education courses results in recommendation for a Washington state teaching certificate and an endorsement in Special Education Preschool through Grade 12 (P-12).

Teachers who hold a valid and endorsable Washington State certificate may earn an endorsement in Special Education (P-12) by completing core coursework requirements.

The Special Education and Early Childhood Education Special Education Majors are academically rigorous programs aligned with the content and performance standards of the Council for Exceptional Children.

### Certification

The Washington Administrative Code specifies the requirements for earning a Washington state teacher certificate. State-approved preparation programs and certification requirements align with state learning goals and essential academic learning requirements, and require candidates to demonstrate that they have made a positive impact on student learning. First-level residency certification programs are designed around the standards of effective teaching, professional development, and teaching as a profession. Second-level professional certification requirements are designed around the standards of effective teaching, professional development, and professional contributions.

**State requirements for teacher certification at the time of completion of a student's program will supersede those outlined in this catalog.** These changes may affect the time it takes for a student to complete the teacher education program.

#### *Residency Teacher Certification*

The first-level residency certificate is awarded to new teachers upon the completion of these general requirements:

- A baccalaureate or higher-level degree from a regionally accredited college or university
- A state-approved, performance-based teacher preparation program that includes preparation in an endorsable subject area, teaching methodology, and an internship
- Evidence of good moral character and personal fitness

Candidates for residency certification must pass a subject knowledge assessment, the Washington Educator Skills Test-Endorsements (WEST-E), to receive an endorsement for certification. WWU requires submission of a passing test score for each endorsement to be earned, before commencement of the student teaching internship. For current information on test requirements, registration, fees, and test dates and locations, refer to the WEST-E Resource Website, [www.wce.wvu.edu/Resources/Endorsements/WEST-E.shtml](http://www.wce.wvu.edu/Resources/Endorsements/WEST-E.shtml). Candidates for residency certification must also complete the state of Washington Preservice Teacher Performance Assessment during the student teaching internship. Application for the residency certificate is made to Woodring College Certification Office, Student Services, Miller Hall 150, 360-650-4930, no later than three months prior to the start of the internship.

The first-issue residency certificate has no defined expiration date. It is valid until the teacher completes at least 1.5 years of successful teaching experience accumulated over a minimum of two years in a state-approved public, private or state-operated education program. A three year residency certificate is then issued

## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

by the state. The timeline for earning a second level professional certificate begins with the re-issued residency certificate.

### *Professional Teacher Certification*

The second-level professional certificate is awarded to experienced teachers who hold a valid residency certificate, and who pass the Washington ProTeach Portfolio assessment or earn national board certification through the National Board for Professional Teaching Standards. For further information on professional certification requirements contact the Woodring College of Education certification officer at 360-650-4630, Miller Hall 150.

### *Endorsements*

An *endorsement* identifies the subject matter a teacher is prepared and authorized by the state to teach. One qualifying endorsement is required for residency certification. Courses required for a teaching endorsement and the professional education sequence must be completed with a grade of C (2.0) or better.

## **Professional Program Requirements**

### **Program Length**

Time to completion of the Special Education major and teacher certification, after completion of all General University Requirements (GURs) or an Associate of Arts degree from a state of Washington community college, ranges from two to three years. Students earning both Special Education P-12 and Elementary Education endorsements should plan on approximately 10 academic quarters for completion. Western students who apply to Teacher Education programs should have satisfied most of the GURs. Transfer students from a community college should have satisfied all of the GURs and preferably have received an AA degree.

## **Admission Requirements**

All applicants to the Woodring College of Education undergraduate and post-baccalaureate teacher education programs must be formally admitted to and currently enrolled at Western Washington University or must apply to Western for the same quarter they apply to teacher education. Woodring College teacher education program application materials are available in Miller Hall 150 and are also printable from [www.wce.wvu.edu/Admiss](http://www.wce.wvu.edu/Admiss).

The requirements listed below are minimum application criteria. Enrollment restrictions apply to teacher education programs. Meeting the following requirements makes the applicant eligible for admission consideration but does not guarantee admission. Students who meet all criteria are further evaluated to determine the most qualified applicants. Students will be evaluated on all information provided with the application, including required copies of transcripts from all prior colleges.

Application criteria:

- Completion of at least 45 quarter credits of college-level course work
- Cumulative grade point average of 2.75 or higher overall college-level course work or over the last 45 credits.
- Passing scores on all three subtests (reading, mathematics, writing) of the Washington Educator Skills Test-Basic (WEST-B). Visit the WEST-B Website at [www.west.nesinc.com](http://www.west.nesinc.com) for more information
- Completion of an English composition course with a grade of B- (2.7) or higher
- It is recommended that all students seek advisement from the special education department prior to submitting an application to best satisfy the admissions criteria. Experiences with children, strong interpersonal communication skills, and other skills helpful in teaching children are considered

### *Advisement and Orientation*

Upon acceptance, each student is assigned an advisor. Students are required to make an advising appointment before registering for classes each quarter. **Additionally, all accepted students must attend**

**a required orientation.** Students may be dropped from Special Education for failing to attend the required orientation.

### *Program Continuation*

Students admitted to the Woodring College of Education must meet specified requirements throughout the course of their teacher education program in order to remain in the program.

### *Requirements Upon Program Admission*

- *Institutional Application for a Teacher's Certificate and Character and Fitness Supplement*, and fingerprinting by the Washington State Patrol as described below under Character and Fitness
- Woodring College of Education Professionalism Orientation
- Woodring College of Education Prevention of Sexual Harassment Training
- Woodring College of Education Blood-Borne Pathogens Training

### *Character and Fitness*

The Washington Administrative Code requires applicants for teacher certification to give evidence of "good moral character and personal fitness." Students provide evidence of character and fitness through two separate but related processes:

- An Institutional Application for a *Teacher's Certificate and Character and Fitness Supplement*, provided to students upon acceptance into the program. The application for certification requires candidates to answer questions regarding professional fitness, criminal history and personal conduct. Students with "yes" responses must report to the certification officer in Miller Hall 150 before registering for classes.
- Washington State Patrol and FBI background checks through a fingerprinting process. Procedures and fee information are provided to students upon acceptance into the program

**No student in a teacher education program may participate in a University-sponsored activity in the public schools until cleared by the Washington State Patrol, or in some cases, investigated and then cleared by the Washington State Office of the Superintendent of Public Instruction.** Clearances are valid for specified time frames. Students must maintain character and fitness clearance until they have been recommended for a residency teacher certificate following completion of the teacher education program. In addition to the Washington state character and fitness requirements noted above, students must abide by the Woodring College of Education conduct policies acknowledged in the Student Conduct Requirements and Agreement, which is submitted with program application materials. Students must also abide by the Department of Special Education Professionalism Expectations document provided at the mandatory orientation.

### *General Retention Requirements*

- Students must maintain at least a 2.75 quarterly GPA beginning the quarter they are notified of admission to Special Education. This requirement applies even to quarters when no education courses are being taken. Students who fail to meet this standard will receive a letter advising them they have been dropped from the program
- Students must earn a grade of C (2.0) or better in the professional education sequence and in all courses required for the endorsement and the academic major
- Students must understand and demonstrate a high level of competence in use of the English language. Those who have difficulty in their verbal and/or written communications should expect to seek remediation before beginning the internship
- Students must complete all certification and endorsement course work prior to the internship
- Students who interrupt enrollment in a teacher education program for more than two consecutive quarters (summer quarter not included) must meet all program admission, completion and certification requirements in place for the quarter in which they expect to return

# SPECIAL EDUCATION AND EDUCATION LEADERSHIP

## *Program Completion*

To qualify for program completion and recommendation for state of Washington residency certification, students must complete the following requirements and assessments:

- A baccalaureate or higher-level degree from a regionally accredited college or university
- A state-approved, performance-based teacher preparation program that includes preparation in an endorsable subject area, teaching methodology, and an internship
- Evidence of good moral character and personal fitness
- Minimum scores set by the state of Washington on the Washington Educator Skills Test-Endorsements (WEST-E) for the qualifying endorsement area(s) required by the teacher preparation program
- Completion of the Washington Preservice Teacher Performance Assessment
- Successful completion of the student teaching internship as shown by performance on the WWU Intern Development and Evaluation System (IDES)

## **Other Special Education Information**

### *Internship*

An important experience for teaching certification candidates is the student teaching internship. During the internship, students teach under the direct supervision of a certified teacher in a school setting. The internship involves intensive practice in integrated methods, content area knowledge, and classroom organizational strategies.

Special Education and Early Childhood Special Education majors seeking certification are required to complete one quarter of internship for 16 credits. Students enroll in either SPED 496, 498 or 499. Those students completing the Special Education and Elementary Education dual endorsement program must also complete an internship in a general elementary education classroom. The one quarter Elementary internship is completed after the one quarter Special Education internship.

The Office of Field Experiences (OFE) is the service agency of the Woodring College of Education that seeks placements for prospective interns. Students apply for their internship around January prior to a fall internship start quarter, or April prior to a winter or spring internship start quarter. Specific dates for informational meetings and application deadlines are published on the OFE Website, [www.wce.wvu.edu/Resources/OFE](http://www.wce.wvu.edu/Resources/OFE). Students must have completed Prevention of Sexual Harassment Training, blood-borne pathogens training, a residency teacher certificate application packet including credit evaluation, and Washington State Patrol/FBI fingerprinting before OFE will seek an internship placement.

Before commencement of the internship, passing scores on the WEST-E for each endorsement must be submitted, all education and endorsement course work and practica must be completed, and fingerprint/character and fitness clearance must be valid. Students who interrupt enrollment for a quarter or more must meet the deadline for filing a returning student application.

OFE does not guarantee placements. Placement in a school is contingent on:

- Fulfillment of all program requirements (satisfactory academic work, education and endorsement program course work and training, practica, and faculty recommendations)
- Submission of passing scores on the WEST-E test(s) for each endorsement
- Availability of placements and supervision in specific subjects and grade levels
- Acceptance by P-12 school personnel
- Fingerprint/character and fitness clearance through the point of certification

Students are required to interview with the public school teacher to whom they will be assigned, for final approval of placement. OFE will make every effort to arrange up to three initial interviews but does not guarantee an interview.

Any subsequent placement after a voluntary or nonvoluntary withdrawal from an internship will be granted only by faculty recommendation following a case conference.

Time commitment to the internship requires seven clock hours daily Monday through Friday plus class preparation time, seminars and responsibilities outside of school. Students may not register for other course work or hold jobs or other time-demanding commitments without the approval of the department and OFE.

Placement locations are listed on the map available in the department office or the Office of Field Experiences. OFE reserves the right to place students anywhere within the WWU service area. For further information, contact the Woodring College of Education, Office of Field Experiences, Student Services, phone 360- 650-3310, Miller Hall 150.

### **Educational Administration Programs**

The Educational Administration component is designed to prepare principals, superintendents, and effective P-12 district level leaders for a diverse society. Upon successful completion of the program, candidates are recommended for the master's degree and/or residency administrator certificate (principal), or the initial administrator certificate (superintendent). Consistent with national and state standards for P-12 school administrators, the program emphasizes leadership and management related to curriculum, school instruction, personnel, staff/community relations, financial and legal matters. Master's and residency administrator certificate (principal) programs are offered in Bellingham, Bremerton and Seattle; the initial administrator certificate (superintendent) programs is offered in Everett. Candidates are directed to the Graduate School section of this catalog for more information; the program office is located in Miller Hall 417, phone 360-650-3708, toll-free 866-913-3323; e-mail EdAdmin@wwu.edu.

**Note:** Evidence of good moral character and personal fitness is required if the candidate does not hold a valid Washington educator certificate at the time of recommendation for the administrator certificate. Instructions and forms are available through the certification office:  
[www.wce.edu/Resources/Certification/CFReq/Overview.shtml](http://www.wce.edu/Resources/Certification/CFReq/Overview.shtml).

#### **Degrees granted:**

- Masters of Education in Educational Administration (Elementary/Secondary) - Instructional Technology is not available at this time.
- Residency Administrator Certificate (Principal)
- Initial Administrator Certificate (Superintendent)

## **Bachelor of Arts in Education**

### **Early Childhood Special Education P-3, BAE**

Department of Special Education, Woodring College of Education

#### **132-134 credits**

#### **Introduction/What is the Study of Early Childhood Special Education?**

Special Educators need to have extensive knowledge in four areas: they need to know about students and how they learn; they need to know about effective instruction; they need to know about the content of the lessons they will teach; and, they need to know about the context (social, legal, and political) in which they will work. Therefore, training to become a Special Educator will include work in each of these areas. The program includes coursework and extensive supervised practicum experiences in the public schools. The program is rigorous and the expectations are high. However, the rewards are also high. This program will prepare you to be an excellent teacher in whatever position you eventually choose. Our graduates are actively recruited by school districts to work in a variety of rewarding special education settings.

This plan of study is designed to prepare personnel to work with children from birth through eight years who have been identified as at-risk for developmental delay and disability and with their families. The major combines studies in Early Childhood and Special Education and leads to recommendation for a Washington State teaching certificate with endorsement in Early Childhood Special Education, Preschool through Grade 3 (P-3). Students may choose to complete additional coursework required to add the P-12 Special Education endorsement or the Early Childhood Education (P-3) endorsement.

# SPECIAL EDUCATION AND EDUCATION LEADERSHIP

## Why Consider an Early Childhood Special Education P-3 Major?

There are two definitions of Special Education. One is the education of students with disabilities. The other is the application of exceptional teaching. We in the Special Education Program at Western Washington University believe very strongly in the second definition. We think that it is our mission to prepare exceptional teachers and, while students who have disabilities often require the services of such teachers, we also believe that there are many other students who can benefit from high quality instruction. We also think that there is much satisfaction to be gained from the acquisition of the highest levels of teaching skill and that the teachers trained in our program benefit professionally and personally from the acquisition of these skills. That is why the word "Special" in our title is a source of pride to us and to our graduates.

Contact Information		
Department Chair	Program Advisor	Teacher Education Admissions
Gail Coulter	Keith Hyatt	Miller Hall 150
Miller Hall 201E	Miller Hall 201C	360-650-3313
360-650-2667	360-650-2353	<a href="http://www.wce.wwu.edu/admiss">http://www.wce.wwu.edu/admiss</a>
<a href="mailto:Gail.Coulter@wwu.edu">Gail.Coulter@wwu.edu</a>	<a href="mailto:Keith.Hyatt@wwu.edu">Keith.Hyatt@wwu.edu</a>	
Sample Careers		
Special Education Pre-School Teacher   Early Interventionist   Inclusive Classroom Teacher   Family Resource Coordinator   Behavior Interventions Specialist		
Major/Career Resources		
<a href="http://www.wwu.edu/careers/students_choosingamajor.shtml">http://www.wwu.edu/careers/students_choosingamajor.shtml</a>		

## How to Declare (Admission and Declaration Process)

Admission to Western Washington University and admission to the Department of Special Education are required before a student may begin taking courses in education. Requirements include:

- completion of a minimum of 45 credits (see list of recommended GUR courses),
- cumulative grade point average of 2.75 or higher for the last 45 credits,
- completion of an English composition course, with grade of B- or higher,
- acceptable WEST-B scores. This test is offered 6-7 times a year at various sites in the State. For details on registration and fees, refer to the WEST-B website at <http://www.west.nesinc.com>.

Enrollment restrictions apply in all teacher education programs. Meeting the above criteria makes the applicant eligible for admission, but does not guarantee admission. Students who meet all criteria are further evaluated by the department to determine the most qualified applicants. For more information on the application process, contact Teacher Education Admissions in Miller Hall 150, call 360.650.3313, or visit the website at <http://www.wce.wwu.edu/Admiss/teacherEducationPrograms>.

Retention in the program requires continuous demonstration of competence in standard oral and written English in all coursework. Retention also requires maintenance of a 2.75 quarterly GPA including the quarter in which the application was reviewed by the Department of Special Education. The State of Washington requires students to earn a "C" or better in all major endorsement and education courses.

## Certification Advisement

Each student will be assigned an adviser when admitted to the Department of Special Education; the adviser for the Early Childhood major is Dr. Keith Hyatt. Students will be assisted and monitored by Dr. Hyatt on a regular basis throughout their program.

## Grade Requirements

Students must earn a grade of C (2.0) or better in the special education professional program and in all courses required for the endorsement.

Requirements

Major — Early Childhood Special Education (P-3): 79-81 credits

One course from:

- ECE 380 - Foundations of Literacy for Early Childhood Education
- ELED 480 - Literacy: Beginning Communicators
- ECE 390 - Infant and Toddler Practicum and Seminar
- ECE 391 - Preschool Practicum and Seminar
- ECE 430 - Creativity & Play in ECE
- ECE 431 - Fundamentals of Early Childhood Education
- ECE 432 - Social Studies for Early Childhood Education

One course from:

- ECE 434 - Environments for Early Learning
- ECE 436 - Child Guidance: Principles and Practices
- SPED 360 - Introduction to Special Education
- SPED 443 - Early Development Variations
- SPED 444 - Assessment and Intervention in Early Childhood Special Education
- SPED 460 - Interventions for Classroom Management
- SPED 466 - Assessment, Evaluation and IEP
- SPED 467 - Curriculum-Based Evaluation
- SPED 468 - Effective Collaboration with Families, Professionals and Community
- SPED 474 - Students With Complex Needs
- SPED 480 - Practicum II: Literacy I
- SPED 483 - Reading Instruction for Students With Special Needs
- SPED 484 - Designing Written Expression Interventions
- SPED 485 - Designing Math Interventions
- SPED 486 - Case Study Applications in Special Education

One course from:

- CSD 251 - Introduction to Communication Disorders
- CSD 354 - Speech and Language Development in Children

Professional Studies Core: 31 credits

- ECE 435 - Child Abuse and Neglect
- SPED 301 - Educational Psychology I: Development and Individual Differences
- SPED 302 - Educational Psychology II: Motivation, Learning and Assessment
- SPED 310 - Education, Culture, and Equity
- I T 443 - Classroom Use of Instructional Technology (Special Education)
- MATH 381 - Teaching K-8 Mathematics I
- SPED 420 - Effective Teaching
- SPED 440 - School Practicum

Public School Practica and Internship — Special Education: 22 credits

- SPED 481 - Practicum III: Literacy 2
- SPED 482 - Practicum IV: Math
- SPED 496 - Internship - Exceptional Children/Early Childhood



## Early Childhood Special Education, BAE

Department of Special Education, Woodring College of Education

### 110-112 credits

#### Introduction/What is the Study of Early Childhood Special Education?

This plan of study is designed to prepare personnel to work with children from birth through eight years who have been identified as at-risk for developmental delay and disability and with their families. The major combines studies in Early Childhood and Special Education.

Students in this major typically seek employment in private child development centers and governmental agencies; they do not qualify for a teaching certificate.

#### Why consider an Early Childhood Special Education major?

There are two definitions of Special Education. One is the education of students with disabilities. The other is the application of exceptional teaching. We in the Special Education Program at Western Washington University believe very strongly in the second definition. We think that it is our mission to prepare exceptional teachers and, while students who have disabilities often require the services of such teachers, we also believe that there are many other students who can benefit from high quality instruction. We also think that there is much satisfaction to be gained from the acquisition of the highest levels of teaching skill and that the teachers trained in our program benefit professionally and personally from the acquisition of these skills. That is why the word "Special" in our title is a source of pride to us and to our graduates.

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<a href="mailto:Gail.Coulter@wwu.edu">Gail.Coulter@wwu.edu</a>	<a href="mailto:Keith.Hyatt@wwu.edu">Keith.Hyatt@wwu.edu</a>	

Major/Career Resources  
[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

Admission Requirements

#### Grade Requirements

Students must earn a grade of C (2.0) or better in the special education professional program and in all courses required for the endorsement.

#### Requirements

Major — Early Childhood Special Education: 79-81 credits

One course from:

- ECE 380 - Foundations of Literacy for Early Childhood Education
- ELED 480 - Literacy: Beginning Communicators
- ECE 390 - Infant and Toddler Practicum and Seminar
- ECE 391 - Preschool Practicum and Seminar
- ECE 430 - Creativity & Play in ECE

## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

- ECE 431 - Fundamentals of Early Childhood Education
- ECE 432 - Social Studies for Early Childhood Education
- One course from:
  - ECE 434 - Environments for Early Learning
  - ECE 436 - Child Guidance: Principles and Practices
  - SPED 360 - Introduction to Special Education
  - SPED 443 - Early Development Variations
  - SPED 444 - Assessment and Intervention in Early Childhood Special Education
  - SPED 460 - Interventions for Classroom Management
  - SPED 466 - Assessment, Evaluation and IEP
  - SPED 467 - Curriculum-Based Evaluation
  - SPED 468 - Effective Collaboration with Families, Professionals and Community
  - SPED 474 - Students With Complex Needs
  - SPED 480 - Practicum II: Literacy I
  - SPED 483 - Reading Instruction for Students With Special Needs
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  - SPED 485 - Designing Math Interventions
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- ECE 435 - Child Abuse and Neglect
- SPED 301 - Educational Psychology I: Development and Individual Differences
- SPED 302 - Educational Psychology II: Motivation, Learning and Assessment
- SPED 310 - Education, Culture, and Equity
- I T 443 - Classroom Use of Instructional Technology (Special Education)
- MATH 381 - Teaching K-8 Mathematics I
- SPED 420 - Effective Teaching
- SPED 440 - School Practicum

### **Special Education – P-12 and Elementary Education (Dual Endorsement), BAE**

Department of Special Education, Woodring College of Education

#### **152-153 credits (major and professional program)**

##### **Introduction/What is the Study of Special Education and Elementary Education?**

Special Educators need to have extensive knowledge in four areas: they need to know about students and how they learn; they need to know about effective instruction; they need to know about the content of the lessons they will teach; and, they need to know about the context (social, legal, and political) in which they will work. Therefore, training to become a Special Educator will include work in each of these areas. The program includes coursework and extensive supervised practicum experiences in the public schools. The program is rigorous and the expectations are high. However, the rewards are also high. This program will prepare you to be an excellent teacher in whatever position you eventually choose. Our dual endorsement graduates are actively recruited by school districts to teach in both elementary classrooms and special education settings.

## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

Students seeking a bachelor's degree with teacher certification and endorsements in Special Education and Elementary Education complete the Special Education Major (P-12), Elementary Program Curriculum and Methods, the Professional Studies Core, and two internships.

### **Why Consider a Dual Endorsement in Special Education P-12 and Elementary Education Major?**

There are two definitions of Special Education. One is the education of students with disabilities. The other is the application of exceptional teaching. We in the Special Education Program at Western Washington University believe very strongly in the second definition. We think that it is our mission to prepare exceptional teachers and, while students who have disabilities often require the services of such teachers, we also believe that there are many other students who can benefit from high quality instruction. We also think that there is much satisfaction to be gained from the acquisition of the highest levels of teaching skills and that the teachers trained in our program benefit professionally and personally from the acquisition of these skills. That is why the word "Special" in our title is a source of pride to us and to our graduates.

Contact Information		
Department Chair	Department Manager	Teacher Education Admissions
Gail Coulter	Pam Clark Hamilton	Miller Hall 150
Miller Hall 201E	Miller Hall 201D	360-650-3313
360-650-2667	360-650-3981	<a href="http://www.wce.wwu.edu/admiss">http://www.wce.wwu.edu/admiss</a>
<a href="mailto:Gail.Coulter@wwu.edu">Gail.Coulter@wwu.edu</a>	<a href="mailto:Pam.Hamilton@wwu.edu">Pam.Hamilton@wwu.edu</a>	

Sample Careers  
Special Education Resource Room Teacher | Special Education Teacher | Consultant | Inclusive Classroom Teacher | Behavior Interventions Specialist | Elementary Teacher

Major/Career Resources  
[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### **How to Declare (Admission and Declaration Process):**

Admission to Western Washington University and admission to the Department of Special Education are required before a student may begin taking courses in education. Requirements include:

- completion of a minimum of 45 credits (see list of recommended GUR courses),
- cumulative grade point average of 2.75 or higher for the last 45 credits,
- completion of an English composition course, with grade of B- or higher,
- acceptable WEST-B scores. This test is offered 6-7 times a year at various sites in the State. For details on registration and fees, refer to the WEST-B website at <http://www.west.nesinc.com>.

Enrollment restrictions apply in all teacher education programs. Meeting the above criteria makes the applicant eligible for admission, but does not guarantee admission. Students who meet all criteria are further evaluated by the department to determine the most qualified applicants. For more information on the application process, contact Teacher Education Admissions in Miller Hall 150, call 360.650.3313, or visit the website at <http://www.wce.wwu.edu/Admiss/teacherEducationPrograms>.

Retention in the program requires continuous demonstration of competence in standard oral and written English in all coursework. Retention also requires maintenance of a 2.75 quarterly GPA including the quarter in which the application was reviewed by the Department of Special Education. The State of Washington requires students to earn a "C" or better in all major endorsement and education courses.

### **Certification Advisement**

Each student will be assigned an adviser when admitted to the Department of Special Education. Students will be assisted and monitored by their adviser on a regular basis throughout their programs.

## Grade Requirements

Students must earn a grade of C (2.0) or better in the special education professional program and in all courses required for the endorsements.

### Requirements

Major — Special Education: 58 credits

- SPED 360 - Introduction to Special Education
- SPED 390 - Special Education Practicum I
- SPED 460 - Interventions for Classroom Management
- SPED 466 - Assessment, Evaluation and IEP
- SPED 467 - Curriculum-Based Evaluation
- SPED 468 - Effective Collaboration with Families, Professionals and Community
- SPED 471 - Interventions for Learning Problems
- SPED 472 - Behavior Assessment and Intervention
- SPED 474 - Students With Complex Needs
- SPED 480 - Practicum II: Literacy I
- SPED 481 - Practicum III: Literacy 2
- SPED 482 - Practicum IV: Math
- SPED 483 - Reading Instruction for Students With Special Needs
- SPED 484 - Designing Written Expression Interventions
- SPED 485 - Designing Math Interventions
- SPED 486 - Case Study Applications in Special Education

Elementary Program Curriculum and Methods: 29-30 credits

- One course from:
  - ART 398 - Integrated Arts for Elementary Educators
  - DNC 398 - Integrated Arts for Elementary Educators
  - MUS 398 - Integrated Arts for Elementary Educators
  - THTR 398 - Integrated Arts for Elementary Educators

- One course from:
  - ART 380 - Art Educating the Child
  - DNC 433 - Creative Movement for Educators With Lab
  - MUS 361 - Music for Elementary Teachers
  - THTR 350 - Theatre for Youth
  - THTR 351 - Creative Pedagogy
  - ELED 426 - Social Studies Methods
  - MATH 382 - Teaching K-8 Mathematics II
  - MATH 383 - Teaching K-8 Mathematics III
  - PE 345 - Physical Education for Elementary School
  - SCED 480 - Science Methods and Curriculum for the Elementary School
  - SCED 490 - Laboratory/Field Experience in Elementary Science

Professional Studies Core: 33-34 credits

- SPED 301 - Educational Psychology I: Development and Individual Differences
- SPED 302 - Educational Psychology II: Motivation, Learning and Assessment
- SPED 310 - Education, Culture, and Equity
- HLED 455 - Health Education Grades K-8
- I T 443 - Classroom Use of Instructional Technology (Special Education)

## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

- MATH 381 - Teaching K-8 Mathematics I
- SPED 420 - Effective Teaching
- SPED 440 - School Practicum
- ELED 424 - Language Arts in the Elementary Curriculum

Internships — Special Education and Elementary Education: 32 credits

- ELED 494 - Internship - Elementary
- SPED 498 - Internship - Exceptional Children/Elementary

### Special Education — P-12 Outreach Program, BAE

Department of Special Education, Woodring College of Education

#### 141–144 credits (professional program and major)

#### Introduction/What is the Study of Special Education?

Students seeking a bachelor's degree with teacher certification and an endorsement in Special Education - P-12 through Teacher Education Outreach Programs located in Bremerton, Everett and Seattle should complete the Elementary Education Professional Program - Outreach Program and the Special Education (P-12) - Outreach Program requirements. Program coursework listed below is delivered through a cohort-based, integrated model designed specifically for outreach program sites. Graduates may earn an endorsement in special education by completing a second internship (16 credits) through the special education additional endorsement program. Courses must be completed with a grade of C (2.0) or better.

#### Contact Information

##### Assistant Dean

Larry Antil  
Miller Hall 256B  
360-650-7505  
Larry.Antil@wwu.edu

##### Program Manager

Linda Luttrell  
Miller Hall 256C  
360-650-6148  
Linda.Luttrell@wwu.edu

#### How to Declare (Admission and Declaration Process):

Before students may begin taking courses in education, they must be admitted to both Western Washington University and Teacher Education Outreach Programs. Admission to our programs occurs once a year in the fall. Program admission requirements include:

- Transferable A.A. degree from a Washington state community college, or satisfaction of Western's General Education Requirements
- Minimum grade point average of 2.75 overall or for the most recent 45 quarter credit hours
- State minimum scores on the Washington Educator Skills Test Basic (WEST-B). This test is offered 6 times a year at various sites in the state. Visit the WEST-B website at <http://www.west.nesinc.com> for more information
- English composition course, completed with a B- or better
- Three letters of recommendation
- Reflective essay

For more details about program admission, please see the Frequently Asked Questions page at <http://www.wce.wwu.edu/depts/teop>.

Enrollment restrictions apply in all teacher education programs. Meeting the above criteria makes the applicant eligible for admission, but does not guarantee admission. Students who meet all criteria are further evaluated by the department to determine the most qualified applicants. Retention in the program requires continuous demonstration of competence in standard oral and written English in all coursework. Retention also

requires maintenance of a 2.75 quarterly GPA for each quarter after admission. The State of Washington requires students to earn a "C" or better in all major endorsement and most education courses.

## **Advisement**

Prospective elementary education students are invited to meet with an advisor for more information about the program (see above for site contacts). At all TEOP sites, the student advisor is the Academic Program Director. Students will be assisted and monitored by their advisors and their program coordinator on a regular basis throughout their program.

## **Grade Requirements**

Students must earn a grade of C (2.0) or better in the elementary education professional program and in all courses required for the endorsement.

## Requirements

Elementary Education Professional Program – Outreach Program: 99 credits

- ART 380 - Art Educating the Child
- SPED 301 - Educational Psychology I: Development and Individual Differences
- SPED 302 - Educational Psychology II: Motivation, Learning and Assessment
- ELED 310 - Education, Culture, and Equity
- ELED 372 - Introduction to Teaching Seminar
- ELED 373 - Introduction to Teaching - Practicum
- ELED 380 - Literacy I: Foundations
- ELED 426 - Social Studies Methods
- ELED 472 - Developing Teaching Seminar
- ELED 473 - Developing Teaching - Practicum
- ELED 474 - Documenting Teaching Seminar
- ELED 475 - Documenting Teaching - Practicum
- ELED 478 - Literacy: Fluent Communicators Seminar
- ELED 479 - Literacy: Fluent Communicators - Practicum
- ELED 494 - Internship - Elementary
- HLED 455 - Health Education Grades K-8
- I T 344 - Basic Instructional Technology Skills
- I T 442 - Classroom Use of Instructional Technology (Elementary)
- MATH 381 - Teaching K-8 Mathematics I
- MATH 382 - Teaching K-8 Mathematics II
- MATH 383 - Teaching K-8 Mathematics III
- MUS 361 - Music for Elementary Teachers
- PE 345 - Physical Education for Elementary School
- SCED 480 - Science Methods and Curriculum for the Elementary School
- SCED 490 - Laboratory/Field Experience in Elementary Science
- SPED 360 - Introduction to Special Education
- SPED 440 - School Practicum

Special Education (P-12) - Outreach Program

- SPED 466 - Assessment, Evaluation and IEP
- SPED 467 - Curriculum-Based Evaluation
- SPED 468 - Effective Collaboration with Families, Professionals and Community
- SPED 471 - Interventions for Learning Problems

# SPECIAL EDUCATION AND EDUCATION LEADERSHIP

- SPED 472 - Behavior Assessment and Intervention
- SPED 474 - Students With Complex Needs
- SPED 480 - Practicum II: Literacy I
- SPED 481 - Practicum III: Literacy 2
- SPED 482 - Practicum IV: Math
- SPED 483 - Reading Instruction for Students With Special Needs
- SPED 484 - Designing Written Expression Interventions
- SPED 485 - Designing Math Interventions
- SPED 486 - Case Study Applications in Special Education
  - Elective under advisement:
    - SPED 470 - Violent and Aggressive Youth

## Special Education — P-12, BAE

Department of Special Education, Woodring College of Education

### 107-108 credits (major and professional program)

#### Introduction/What is the Study of Special Education P-12?

Special Educators need to have extensive knowledge in four areas: they need to know about students and how they learn; they need to know about effective instruction; they need to know about the content of the lessons they will teach; and, they need to know about the context (social, legal, and political) in which they will work. Therefore, training to become a Special Educator will include work in each of these areas. The program includes coursework and extensive supervised practicum experiences in the public schools. The program is rigorous and the expectations are high. However, the rewards are also high. This program will prepare you to be an excellent teacher in whatever position you eventually choose. Our graduates are actively recruited by school districts to work in a variety of rewarding special education settings.

Students seeking a bachelor's degree with recommendation for a Washington State teacher certification and an endorsement in Special Education must complete the Special Education (P-12) major, the Professional Studies Core, and internship. Graduates are not endorsed to be the sole teacher in the general education classroom but may serve as a consultant to the teacher of record. Although graduates are endorsed to teach special education populations in grades P-12, federal Highly Qualified Teacher (HQT) requirements require additional evidence of content knowledge in order to teach core academic subjects.

#### Why Consider a Special Education P-12 Major?

There are two definitions of Special Education. One is the education of students with disabilities. The other is the application of exceptional teaching. We in the Special Education Program at Western Washington University believe very strongly in the second definition. We think that it is our mission to prepare exceptional teachers and, while students who have disabilities often require the services of such teachers, we also believe that there are many other students who can benefit from high quality instruction. We also think that there is much satisfaction to be gained from the acquisition of the highest levels of teaching skill and that the teachers trained in our program benefit professionally and personally from the acquisition of these skills. That is why the word "Special" in our title is a source of pride to us and to our graduates.

Contact Information		
<b>Department Chair</b>	<b>Department Manager</b>	<b>Teacher Education Admissions</b>
Gail Coulter	Pam Clark Hamilton	Miller Hall 150
Miller Hall 201E	Miller Hall 201D	360-650-3313
360-650-2667	360-650-3981	<a href="http://www.wce.wvu.edu/admiss">http://www.wce.wvu.edu/admiss</a>
<a href="mailto:Gail.Coulter@wwu.edu">Gail.Coulter@wwu.edu</a>	<a href="mailto:Pam.Hamilton@wwu.edu">Pam.Hamilton@wwu.edu</a>	

**Sample Careers**

Special Education Resource Room Teacher | Special Education Teacher | Consultant | Inclusive Classroom Teacher

**Major/Career Resources**

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

Admission to Western Washington University and admission to the Department of Special Education are required before a student may begin taking courses in education. Requirements include:

- completion of a minimum of 45 credits (see list of recommended GUR courses),
- cumulative grade point average of 2.75 or higher for the last 45 credits,
- completion of an English composition course, with grade of B- or higher,
- acceptable WEST-B scores. This test is offered 6-7 times a year at various sites in the State. For details on registration and fees, refer to the WEST-B website at <http://www.west.nesinc.com>.

Enrollment restrictions apply in all teacher education programs. Meeting the above criteria makes the applicant eligible for admission, but does not guarantee admission. Students who meet all criteria are further evaluated by the Department to determine the most qualified applicants. For more information on the application process, contact Teacher Education Admissions in Miller Hall 150, call 360.650.3313, or visit the website at <http://www.wce.wvu.edu/Admiss/teacherEducationPrograms>.

Retention in the program requires continuous demonstration of competence in standard oral and written English in all coursework. Retention also requires maintenance of a 2.75 quarterly GPA including the quarter in which the application was reviewed by the Department of Special Education. The State of Washington requires students to earn a "C" or better in all major endorsement and education courses.

**Certification Advisement**

Each student will be assigned an adviser when admitted to the Department of Special Education. Students will be assisted and monitored by their adviser on a regular basis throughout their program.

**Grade Requirements**

Students must earn a grade of C (2.0) or better in the special education professional program and in all courses required for the endorsement.

Major — Special Education: 58 credits

- SPED 360 - Introduction to Special Education
- SPED 390 - Special Education Practicum I
- SPED 460 - Interventions for Classroom Management
- SPED 466 - Assessment, Evaluation and IEP
- SPED 467 - Curriculum-Based Evaluation
- SPED 468 - Effective Collaboration with Families, Professionals and Community
- SPED 471 - Interventions for Learning Problems
- SPED 472 - Behavior Assessment and Intervention
- SPED 474 - Students With Complex Needs
- SPED 480 - Practicum II: Literacy I
- SPED 481 - Practicum III: Literacy 2
- SPED 482 - Practicum IV: Math
- SPED 483 - Reading Instruction for Students With Special Needs
- SPED 484 - Designing Written Expression Interventions
- SPED 485 - Designing Math Interventions
- SPED 486 - Case Study Applications in Special Education



# SPECIAL EDUCATION AND EDUCATION LEADERSHIP

## Professional Studies Core: 33-34 credits

- SPED 301 - Educational Psychology I: Development and Individual Differences
- SPED 302 - Educational Psychology II: Motivation, Learning and Assessment
- SPED 310 - Education, Culture, and Equity
- HLED 455 - Health Education Grades K-8
- I T 443 - Classroom Use of Instructional Technology (Special Education)
- MATH 381 - Teaching K-8 Mathematics I
- SPED 420 - Effective Teaching
- SPED 440 - School Practicum
- ELED 424 - Language Arts in the Elementary Curriculum

## Internship — Special Education: 16 credits

One course from:

- SPED 498 - Internship - Exceptional Children/Elementary
- SPED 499 - Internship - Exceptional Children/Secondary

Note(s): Post-baccalaureate teacher certification with Special Education endorsement has essentially the same requirements as the undergraduate teacher certification program in Special Education, including the Professional Studies Core and internship requirements.

## Special Education, BAE

Department of Special Education, Woodring College of Education

### 85-86 credits

### Introduction/What is the Study of Special Education?

Completion of this major and the required professional education courses results in a BA in Education. Students who complete this major typically seek employment in non-school settings, such as health and human services and non-profit organizations; they do not qualify for a teaching certificate.

### Why consider a Special Education Major?

There are two definitions of Special Education. One is the education of students with disabilities. The other is the application of exceptional teaching. We in the Special Education Program at Western Washington University believe very strongly in the second definition. We think that it is our mission to prepare exceptional teachers and, while students who have disabilities often require the services of such teachers, we also believe that there are many other students who can benefit from high quality instruction. We also think that there is much satisfaction to be gained from the acquisition of the highest levels of teaching skill and that the teachers trained in our program benefit professionally and personally from the acquisition of these skills. That is why the word "Special" in our title is a source of pride to us and to our graduates.

#### Contact Information

<b>Department Chair</b>	<b>Department Manager</b>	<b>Teacher Education Admissions</b>
Gail Coulter	Pam Clark Hamilton	Miller Hall 150
Miller Hall 201E	Miller Hall 201D	360-650-3313
360-650-2667	360-650-3981	<a href="http://www.wce.wvu.edu/admiss">http://www.wce.wvu.edu/admiss</a>
<a href="mailto:Gail.Coulter@wwu.edu">Gail.Coulter@wwu.edu</a>	<a href="mailto:Pam.Hamilton@wwu.edu">Pam.Hamilton@wwu.edu</a>	

#### Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## Admission and Declaration Process

Admission Requirements

## Grade Requirements

Students must earn a grade of C (2.0) or better in the special education professional program and in all courses required for the endorsement.

Major — Special Education: 52 credits

- SPED 360 - Introduction to Special Education
- SPED 390 - Special Education Practicum I
- SPED 460 - Interventions for Classroom Management
- SPED 466 - Assessment, Evaluation and IEP
- SPED 467 - Curriculum-Based Evaluation
- SPED 468 - Effective Collaboration with Families, Professionals and Community
- SPED 471 - Interventions for Learning Problems
- SPED 472 - Behavior Assessment and Intervention
- SPED 474 - Students With Complex Needs
- SPED 480 - Practicum II: Literacy I
- SPED 483 - Reading Instruction for Students With Special Needs
- SPED 484 - Designing Written Expression Interventions
- SPED 485 - Designing Math Interventions
- SPED 486 - Case Study Applications in Special Education

Professional Studies Core: 33-34 credits

- SPED 301 - Educational Psychology I: Development and Individual Differences
- SPED 302 - Educational Psychology II: Motivation, Learning and Assessment
- SPED 310 - Education, Culture, and Equity
- HLED 455 - Health Education Grades K-8
- I T 443 - Classroom Use of Instructional Technology (Special Education)
- MATH 381 - Teaching K-8 Mathematics I
- SPED 420 - Effective Teaching
- SPED 440 - School Practicum
- ELED 424 - Language Arts in the Elementary Curriculum

## Master of Education

### Educational Administration, Instructional Technology, MEd (In Moratorium)

*Department of Educational Leadership*

# SPECIAL EDUCATION AND EDUCATION LEADERSHIP

This program is not currently accepting new students. For further information contact the Graduate School, Western Washington University, 516 High St., Bellingham, WA 98225-9037, 360-650-3170, [gradschool@wwu.edu](mailto:gradschool@wwu.edu).

## **Educational Administration, Thesis, MEd**

### **Graduate Faculty**

**Hunter, Joseph**, EdD.

**Larsen, Donald E.**, PhD.

**Graduate Program Advisor:** Dr. Donald Larsen, Miller Hall 418C, 360-650-4336, [Donald.Larsen@wwu.edu](mailto:Donald.Larsen@wwu.edu)

**Program Manager:** Judy Gramm, Miller Hall 417A, 360-650-3708, [Judy.Gramm@wwu.edu](mailto:Judy.Gramm@wwu.edu)

### **Program Goals**

The Educational Administration program is designed to prepare elementary and secondary school teachers to assume leadership roles as principals, vice principals, program and department leaders, or instructional technology specialists. Candidates are recommended for the master's degree and/or principal certification. Satisfactory completion of the Superintendent Certificate qualifies candidates for the superintendency as well as other district-level leadership roles.

The Educational Administration program is offered at four sites — Bellingham, Bremerton, Seattle, and Everett (initial superintendent certification).

### **Application Information**

#### **Prerequisite/Supporting Materials:**

- Course background appropriate to level of specialization
- Three years of documented successful school-based instructional experience with students (e.g., teaching or ESA employment)
- Application for admission to Graduate School
- Candidate Information Form
- Photocopy of your valid Washington State teacher or ESA certificate. If submitting an ESA certificate, include a letter from your supervisor describing your assignment and service that supports successful school-based instructional experience with students
- A current résumé outlining your education and professional history
- Professional Reference forms (3): one each from two building-level administrators, and one from a district-level administrator
- Official transcript(s) showing all previous course work
- Satisfactory Graduate Record Exam (GRE) or Miller Analogies Test (MAT) scores
- Letter of application stating (a) why you want to become a school administrator, (b) how your understanding of diversity relates to improving learning for all students, and (c) defining your goals and objectives as an education leader
- Prerequisite Experience for a Principal's Certificate (Form SPI/CERT 4001F-C) if you are also pursuing your principal's certificate
- An interview with a program advisor may be required

Please collect all admission materials, then forward the packet directly to the Graduate School, Old Main 530.

#### **Program Requirements (52 credits)**

##### Core courses: [20 credits]

- EDAD 501 - Introduction to Educational Research and Evaluation
- EDAD 512 - Policy Studies in Educational Administration
- EDAD 541 - Theory in Educational Administration
- EDAD 543 - Supervision in the Public Schools

- EDAD 552 - Planning for Curriculum Administration  
Thesis: [9 credits]
    - One course from:
  - EDAD 690 - Thesis or
  - I T 690 - Thesis
    - Electives selected under advisement, e.g., law, finance, personnel, staff/community relations, instructional technology [23 credits]
- For further information, see the Educational Administration Program website at [www.wce.wvu.edu/Depts/EDAD](http://www.wce.wvu.edu/Depts/EDAD).

### Additional Information

#### ***Competency in Instructional Technology***

Students admitted to programs in the Woodring College of Education are required to possess competence in the use of instructional technology in education prior to completion of their program and, when applicable, prior to being recommended for certification. Procedures for demonstrating or developing competence are available in Miller Hall 417A.

#### ***Second Master's Degree***

Enrollment must be for a single MEd, MA or MIT program. Students who have earned an MEd or MIT may apply for admission to another MEd program but all requirements of the second program must be met (with possible allowance for some course work taken in the first program). However, all programs must be completed with the minimum number of required credits.

**NOTE:** Due to a review and revision process which may affect Woodring College of Education programs and courses, the information contained in the Education section of this catalog is subject to change.

### **Educational Administration, With Comprehensive Assessment, Non-Thesis, MEd**

#### **Graduate Faculty**

**Hunter, Joseph**, EdD.

**Larsen, Donald E.**, PhD.

**Graduate Program Advisor:** Dr. Donald Larsen, Miller Hall 418C, 360-650-4336, [Donald.Larsen@wwu.edu](mailto:Donald.Larsen@wwu.edu)

**Program Manager:** Judy Gramm, Miller Hall 417A, 360-650-3708, [Judy.Gramm@wwu.edu](mailto:Judy.Gramm@wwu.edu)

#### **Program Goals**

The Educational Administration program is designed to prepare elementary and secondary school teachers to assume leadership roles as principals, vice principals, program and department leaders, or instructional technology specialists. Candidates are recommended for the master's degree and/or principal certification. Satisfactory completion of the Superintendent Certificate qualifies candidates for the superintendency as well as other district-level leadership roles.

The Educational Administration program is offered at four sites — Bellingham, Bremerton, Seattle, and Everett (initial superintendent certification).

#### **Application Information**

##### **Prerequisite/Supporting Materials:**

- Course background appropriate to level of specialization
- Three years of documented successful school-based instructional experience with students (e.g., teaching or ESA employment)

## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

- Application for admission to Graduate School
- Candidate Information Form
- Photocopy of your valid Washington State teacher or ESA certificate (if submitting an ESA certificate, include a letter from your supervisor describing your assignment and service that supports successful school-based instructional experience with students).
- A current résumé outlining your education and professional history
- Professional Reference forms (3): one each from two building-level administrators, and one from a district-level administrator
- Official transcript(s) showing all previous course work
- Satisfactory Graduate Record Exam (GRE) or Miller Analogies Test (MAT) scores
- Letter of application stating (a) why you want to become a school administrator and (b) how your understanding of diversity relates to improving learning for all students, and (c) defining your goals and objectives as an education leader
- Prerequisite Experience for a Principal's Certificate (Form SPI/CERT 4001F-C) if you are also pursuing your principal's certificate
- An interview with a program advisor may be required

Please collect all admission materials, then forward the packet directly to the Graduate School, Old Main 530.

### Program Requirements (52 credits)

- EDAD 501 - Introduction to Educational Research and Evaluation
- EDAD 512 - Policy Studies in Educational Administration
- EDAD 541 - Theory in Educational Administration
- EDAD 543 - Supervision in the Public Schools
- EDAD 552 - Planning for Curriculum Administration
  - Electives selected under advisement, e.g., law, finance, personnel, staff/community relations, instructional technology [32 credits]
  - Comprehensive assessment

For further information, see the Educational Administration Program website at [www.wce.wvu.edu/Depts/EDAD](http://www.wce.wvu.edu/Depts/EDAD).

### Additional Information

#### ***Competency in Instructional Technology***

Students admitted to programs in the Woodring College of Education are required to possess competence in the use of instructional technology in education prior to completion of their program and, when applicable, prior to being recommended for certification. Procedures for demonstrating or developing competence are available in Miller Hall 417A.

#### ***Comprehensive Assessment***

Woodring College of Education students in Option II are required to complete a comprehensive assessment. The format, timeline and criteria are defined by specific departments. For procedures, students should see their graduate advisors.

#### ***Second Master's Degree***

Enrollment must be for a single MEd, MA or MIT program. Students who have earned an MEd or MIT may apply for admission to another MEd program but all requirements of the second program must be met (with possible allowance for some course work taken in the first program). However, all programs must be completed with the minimum number of required credits.

**NOTE:** Due to a review and revision process which may affect Woodring College of Education programs and courses, the information contained in the Education section of this catalog is subject to change.

## **Educational Administration, With Field Study and Comprehensive Assessment, Non-Thesis, MEd**

### **Graduate Faculty**

**Hunter, Joseph**, EdD.

**Larsen, Donald E.**, PhD.

**Graduate Program Advisor:** Dr. Donald Larsen, Miller Hall 418C, 360-650-4336, Donald.Larsen@wwu.edu

**Program Manager:** Judy Gramm, Miller Hall 417A, 360-650-3708, Judy.Gramm@wwu.edu

### **Program Goals**

The Educational Administration program is designed to prepare elementary and secondary school teachers to assume leadership roles as principals, vice principals, program and department leaders, or instructional technology specialists. Candidates are recommended for the master's degree and/or principal certification. Satisfactory completion of the Superintendent Certificate qualifies candidates for the superintendency as well as other district-level leadership roles.

The Educational Administration program is offered at four sites - Bellingham, Bremerton, Seattle, and Everett (initial superintendent certification).

### **Application Information**

#### **Prerequisite/Supporting Materials:**

- Course background appropriate to level of specialization
- Three years of documented successful school-based instructional experience with students (e.g., teaching or ESA employment)
- Application for admission to Graduate School
- Candidate Information Form
- Photocopy of your valid Washington State teacher or ESA certificate (if submitting an ESA certificate, include a letter from your supervisor describing your assignment and service that supports successful school-based instructional experience with students).
- A current résumé outlining your education and professional history
- Professional Reference forms (3): one each from two building-level administrators, and one from a district-level administrator
- Official transcript(s) showing all previous course work
- Satisfactory Graduate Record Exam (GRE) or Miller Analogies Test (MAT) scores
- Letter of application stating (a) why you want to become a school administrator, (b) how your understanding of diversity relates to improving learning for all students, and (c) defining your goals and objectives as an education leader
- Prerequisite Experience for a Principal's Certificate (Form SPI/CERT 4001F-C) if you are also pursuing your principal's certificate
- An interview with a program advisor may be required

Please collect all admission materials, then forward the packet directly to the Graduate School, Old Main 530.

#### **Program Requirements (54 credits)**

- Core courses: (20 credits)
  - EDAD 501 - Introduction to Educational Research and Evaluation
  - EDAD 512 - Policy Studies in Educational Administration

## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

- EDAD 541 - Theory in Educational Administration
  - EDAD 543 - Supervision in the Public Schools
  - EDAD 552 - Planning for Curriculum Administration
  - Field study: [6 credits] EDAD 556 - Field Study in Educational Administration
    - Electives selected under advisement, e.g., law, finance, personnel, staff/community relations, instructional technology [28 credits]
    - Comprehensive Assessment
- For further information, see the Educational Administration Program website at [www.wce.wvu.edu/Depts/EDAD](http://www.wce.wvu.edu/Depts/EDAD).

### Additional Information

#### ***Competency in Instructional Technology***

Students admitted to programs in the Woodring College of Education are required to possess competence in the use of instructional technology in education prior to completion of their program and, when applicable, prior to being recommended for certification. Procedures for demonstrating or developing competence are available in Miller Hall 417A.

#### ***Comprehensive Assessment***

Woodring College of Education students in Option II are required to complete a comprehensive assessment. The format, timeline and criteria are defined by specific departments. For procedures, students should see their graduate advisors.

#### ***Second Master's Degree***

Enrollment must be for a single MEd, MA or MIT program. Students who have earned an MEd or MIT may apply for admission to another MEd program but all requirements of the second program must be met (with possible allowance for some course work taken in the first program). However, all programs must be completed with the minimum number of required credits.

**NOTE:** Due to a review and revision process which may affect Woodring College of Education programs and courses, the information contained in the Education section of this catalog is subject to change.

### **Special Education, Non-Thesis, MEd (Endorsement Optional) (In Moratorium)**

Department of Special Education  
Miller Hall 200, 360-650-3981

No new applications are being accepted at this time. As this program has been placed in moratorium, please contact the department or see the department website for updated information.

#### **Graduate Faculty**

**Coulter, Gail**, PhD.

**Hyatt, Keith**, EdD.

**Kelley, Bridget**, PhD.

**Lambert, M. Charles**, PhD.

**Robinson, LeAnne**, PhD.

**Sasnett, Roger**, PhD, NCSP

**Thorndike-Christ, Tracy**, PhD.

#### **Goals**

The program prepares special educators to become master teachers and consultants in specialized instruction.

Graduate studies in special education are generally designed for students who have met Washington state teacher certification requirements, and are seeking a master's degree in combination with an endorsement to teach special education, and for certificated special education teachers. Prospective students who hold a bachelor's degree and are seeking a first Washington state certification should refer to the Special Education Post-Baccalaureate Program as preparation for graduate admission.

## **Application Information**

Candidates must meet the requirements of the Graduate School (see General Requirements in this section of the catalog) in addition to the following departmental requirements:

- Specific test requirements:
  - Miller Analogies Test or Graduate Record Exam, General Test.
- Supporting materials:
  - A résumé
  - A statement of purpose for seeking the MEd, and SPED endorsement, if applicable, not to exceed one page
  - Completion of Washington state residency certificate requirements
  - Three current letters of reference
  - An on-campus interview if requested by the department

In limited cases, students who do not meet departmental admission requirements may be granted provisional admission by the Graduate School.

## **Research Paper**

The department requires students to submit a proposal for a research paper (691). This proposal must be approved by the student's committee prior to registering for SPED 691. In SPED 691 students will design and carry out independent research under the direction of a faculty committee. Two faculty are required for the committee directing the research paper (691).

## **Comprehensive Assessment**

Student achievement of the program competencies will be assessed by faculty during the final two quarters of the program through one of two methods:

- Research paper (SPED 691)
- Qualifying examination - the qualifying exam is required by the end of the third quarter of enrollment, after completing SPED 501 with a grade of B- or better. Passage of the qualifying exam is required prior to registering for SPED 691 credits.

Courses (52 credits)

**NOTE:** curriculum undergoing revision

Options including a special education teaching endorsement (52 credits)

Core requirements:

- SPED 501 - Research in Special Education
- SPED 503 - Instructional Design for Diverse Learners
- SPED 567 - Advanced Issues in Special Education \*

SPED course work:

- SPED 466 - Assessment, Evaluation and IEP
- SPED 474 - Students With Complex Needs
- SPED 560 - Literacy Instruction for Students With Special Needs
- SPED 562 - Learning Problems
- SPED 563 - Curriculum and Methods in Special Education



## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

- SPED 564 - Social Skills
- SPED 565 - Communication and Collaboration in Special Education
- SPED 568 - Curriculum-Based Evaluation and Decision Making

☐ Research paper requirement:

- SPED 691 - Research Seminar

A one quarter student teaching internship may be required to earn the P-12 special education endorsement.

Options not including a special education teaching endorsement (52 credits)

☐ Core requirements:

SPED 501 - Research in Special Education  
SPED 503 - Instructional Design for Diverse Learners  
SPED 567\*

☐ SPED course work:

A minimum of 10 hours in Special Education and others by advisement

☐ Research paper requirement:

SPED 691

\*Repeatable — 6 credits required.

### **Special Education, Thesis, MEd (Endorsement Optional) (In Moratorium)**

Department of Special Education

Miller Hall 200, 360-650-3981

No new applications are being accepted at this time. As this program has been placed in moratorium, please contact the department or see the department website for updated information.

#### **Graduate Faculty**

**Coulter, Gail**, PhD.

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**Sasnett, Roger**, PhD, NCSP

**Thorndike-Christ, Tracy**, PhD.

#### **Goals**

The program prepares special educators to become master teachers and consultants in specialized instruction. Graduate studies in special education are generally designed for students who have met Washington state teacher certification requirements, and are seeking a master's degree in combination with an endorsement to teach special education, and for certificated special education teachers. Prospective students who hold a bachelor's degree and are seeking a first Washington state certification should refer to the Special Education Post-Baccalaureate Program as preparation for graduate admission.

#### **Application Information**

Candidates must meet the requirements of the Graduate School (see General Requirements in this section of the catalog) in addition to the following departmental requirements:

- Specific test requirements:
  - Miller Analogies Test or Graduate Record Exam, General Test.
- Supporting materials:
  - A résumé

## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

- A statement of purpose for seeking the MEd, and SPED endorsement, if applicable, not to exceed one page
- Completion of Washington state residency certificate requirements
- Three current letters of reference
- An on-campus interview if requested by the department

In limited cases, students who do not meet departmental admission requirements may be granted provisional admission by the Graduate School.

### Thesis

The department requires students to submit a proposal for a thesis (690). This proposal must be approved by the student's committee prior to registering for SPED 690 or SPED 691. In SPED 690 students will design and carry out independent research under the direction of a faculty committee. The thesis option (690) requires a committee of three faculty.

### Comprehensive Assessment

Student achievement of the program competencies will be assessed by faculty during the final two quarters of the program through one of two methods:

- Thesis proposal, paper, and defense (SPED 690)
- Qualifying examination - the qualifying exam is required by the end of the third quarter of enrollment, after completing SPED 501 with a grade of B- or better. Passage of the qualifying exam is required prior to registering for SPED 690 credits.

Courses (52 credits)

**NOTE:** curriculum undergoing revision

Options including a special education teaching endorsement (52 credits)

**NOTE:** curriculum undergoing revision

Core Requirements:

- SPED 501 - Research in Special Education
- SPED 503 - Instructional Design for Diverse Learners
- SPED 567 - Advanced Issues in Special Education \*

SPED course work:

- SPED 466 - Assessment, Evaluation and IEP
- SPED 474 - Students With Complex Needs
- SPED 560 - Literacy Instruction for Students With Special Needs
- SPED 562 - Learning Problems
- SPED 563 - Curriculum and Methods in Special Education
- SPED 564 - Social Skills
- SPED 565 - Communication and Collaboration in Special Education
- SPED 568 - Curriculum-Based Evaluation and Decision Making

Thesis requirement:

- Thesis requirement: SPED 690 - Thesis

A one quarter student teaching internship may be required to earn the P-12 special education endorsement.

Options not including a special education teaching endorsement (52 credits)

Core requirements:

- SPED 501 - Research in Special Education
- SPED 503 - Instructional Design for Diverse Learners
- SPED 567 - Advanced Issues in Special Education \*

## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

☐ SPED course work:

A minimum of 10 hours in Special Education and others by advisement

☐ Thesis requirement:

- SPED 690 - Thesis

\*Repeatable — 6 credits required.

## State Issued Certificate Preparation (Non-Degree)

### Initial Administrator Certificate (Superintendent)

#### 32 credits

(26 credits of coursework plus a 6 credit, 6 quarter field experience)

See <http://www.wce.wvu.edu/Depts/EDAD/SuperCert.shtml> for specific details.

#### Introduction/What is the Study of Initial Administrator Certificate?

Designed for aspiring superintendents and other school district leaders, such as assistant superintendents, executive directors and program managers. Candidates earn the Washington State initial superintendent's certificate.

#### Why Consider a Certificate in Initial Administrator (Superintendent)?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Application and Declaration Process):

All applicants must complete the Graduate School online application. This secure process includes credit card payment of a \$50 application fee and instructions for providing the following materials:

1. Official Transcripts: Two from the institution that awarded your master's degree. If you earned your master's degree at WWU, you do not need to provide your WWU transcript.
2. Letter of intent stating (a) your goals and objectives as a district-level leader and (b) how your understanding of diversity relates to improving learning for all students.
3. Résumé outlining your education and professional history.
4. Letter of recommendation from your prospective mentoring superintendent supporting your application and indicating his/her willingness to serve as your mentor.
5. One copy of valid Washington State certificate (teacher, ESA, principal, or program administrator).
6. Candidate Information Form

Prior to submitting an application, interested applicants to this program should contact the educational administration office, Miller Hall 417A.

## Program Requirements

### Eligibility

1. Master's degree or higher from a regionally accredited college or university.
2. Valid teacher, educational staff associate (ESA), program administrator, or principal certificate.

3. At least 45 credit hours (30 semester credit hours) of post-baccalaureate or graduate-level course work in education.

## **Internship**

- Washington State Requirement: All candidates for the initial superintendent's certificate must complete a six-credit, six-quarter field experience.
- Mentor Supervision: The intern shall be under the supervision of a mentoring superintendent with a minimum of three years of professional experience in the role they are supervising. Candidates are to discuss leadership goals and administrative career aspirations with the mentoring administrator before, or commensurate with, application to the program.
- District & University Approval: In addition to getting University approval for a specified internship, candidates must initiate and satisfy any internship approval procedures required by their district.
- University Credit: 540 hours of field experience (EDAD 692) translates to (6) credit hours across six quarters of (1) credit each.

Admission to the internship is separate from admission to the certificate program and is based on an individual evaluation of the candidate's preparation and experience.

## **Additional Information**

**Note:** Evidence of good moral character and personal fitness is required if the candidate does not hold a valid Washington educator certificate at the time of recommendation for the administrator certificate. Instructions and forms are available through the certification office:

[www.wce.wvu.edu/Resources/Certification/CFReq/Overview.shtml](http://www.wce.wvu.edu/Resources/Certification/CFReq/Overview.shtml)

## **Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## **Professional Administrator Certificate (In Moratorium)**

**7-15 credits (credit option); a non-credit option is also available.**

See <http://www.wce.wvu.edu/Depts/EDAD/ProCert.shtml> for specific details.

## **Introduction/What is the Study of Professional Administrator?**

Designed for Washington educators who hold a residency administrator certificate and have two years experience in an administrative role. Candidates earn the Washington State professional administrator certificate.

## **Why Consider a Professional Administrator Certificate?**

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## **How to Declare (Admission and Declaration Process):**

This program is currently in moratorium. The Educational Administration program will review this decision each spring for possible reinstatement.

## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

1. Official Transcripts: Two from the institution that awarded your master's degree. If you previously attended WWU, it is not necessary to provide WWU transcripts or other transcripts previously submitted to WWU.
2. Résumé outlining your education and professional history.
3. One copy of valid Washington State certificate (residency principal or residency program administrator).
4. Verification of Two Years Experience & Employment Form
5. Candidate Information Form
6. EESP Registration form (non-credit option only)

Prior to submitting an application, interested applicants to this program should contact the educational administration office, Miller Hall 416A.

### **Application Procedure (Credit Option)**

All applicants seeking the credit option must complete the Graduate School online application and items 1-5 of the supporting application materials indicated above. This secure process includes credit card payment of a \$50 application fee and instructions for providing the materials indicated above.

### **Application Deadline:**

Credit Option:

Admission to this cohort program is offered once a year; starting term is Fall. If selecting the credit option and to receive full consideration for admission, applicants must submit all application materials by the August 1 deadline. Applications will not be forwarded to the department for review until all required materials have been received.

### **Application Procedure (Non-Credit Option--Fee Only)**

All applicants seeking the non-credit option (fee only) must complete items 2-6 above and submit them directly to:

Educational Administration, MS 9087  
Department of Educational Leadership  
Western Washington University  
516 High Street  
Bellingham, WA 98225-9087

For applicants seeking the non-credit option, a fee of \$1299 (the support fee of \$1,200 plus the \$99 POLE 360 fee) is payable with your application and provides four consecutive academic quarters of facilitated assistance. Beyond four quarters there will be an additional minimum charge of \$500.

Non-Credit Option:

If seeking the non-credit (fee only) option, please bring all application materials, to the Information Session. The non-credit registration deadline is September 15.

### **Requirements:**

#### **Eligibility**

1. Valid residency principal or program administrator certificate.
2. Two years' experience in a certificated administrator position.
3. Contracted status as an administrator.

### **Additional Information (if necessary)**

**Note:** This program is currently in moratorium. The Educational Administration program will review this decision each spring for possible re-instatement.

## **Residency Administrator Certificate (Principal)**

### **48 credits**

(36 credits of coursework plus a 12 credit, year-long field experience)

See <http://www.wce.wvu.edu/Depts/EDAD/PrincipalCert.shtml> for specific details.

**Introduction/What is the Study of Residency Administrator?**

Designed for educators who hold a master's degree, or are currently enrolled in a master's program. Candidates earn the Washington State residency administrator certificate (principal).

**Why Consider a Certificate in Residency Administrator (Principal)?**

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):**

All applicants must complete the Graduate School online application. This secure process includes credit card payment of a \$100 application fee and instructions for providing the following materials:

1. Official Transcripts: Two from the institution that awarded your master's degree. If you previously attended WWU, it is not necessary to provide WWU transcripts or other transcripts previously submitted to WWU.
2. Letter of intent stating a) why you want to become a school administrator, b) how your understanding of diversity relates to improving learning for all students, and c) your goals and objectives as an education leader.
3. Résumé outlining your education and professional history.
4. One copy of valid Washington State certificate (teacher or educational staff associate). If submitting an ESA certificate, you must include a letter from your supervisor describing your assignment and three years of service that supports successful school-based instructional experience with students.
5. Prerequisite Experience for a Principal's Certificate (Form SPI/CERT 4001F-C) Professional Reference Forms (3): One each from two building-level administrators, and one from a district-level administrator.
6. Candidate Information Form

Prior to submitting an application, interested applicants to this program should contact the educational administration office, Miller Hall 417A.

**Application Deadlines**

To receive full consideration for admission to this program, applicants must submit all application materials by the following deadlines:

- Fall Quarter: August 1
- Winter Quarter: October 1
- Spring Quarter: February 1
- Summer Quarter: May 1

**Program Requirements****Eligibility**

1. Master's degree or higher from a regionally accredited college or university.
2. Valid Washington State teacher or educational staff associate (ESA) certificate.
3. Three years demonstrated successful school-based experience.

**Internship**

- Washington State Requirement: All candidates for the residency principal's certificate must spend 540 hours in a full school-year field experience, of which at least one half shall be when students and staff are present.
- Mentor Supervision: The intern shall be under the supervision of a mentoring principal or vice principal certificated at the appropriate level with a minimum one year experience in the role.

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- District & University Approval: In addition to getting University approval on all internship arrangements, candidates must initiate and satisfy any internship approval procedures required by their district.
- University Credit: 540 hours of field experience (EDAD 592) translates to (12) credit hours in one academic year; i.e., three consecutive quarters of (4) credits each.

Admission to the internship is separate from admission to the certificate program and is based on an individual evaluation of the candidate's preparation and experience.

### **Additional Information (if necessary)**

**NOTE:** Evidence of good moral character and personal fitness is required if the candidate does not hold a valid Washington educator certificate at the time of recommendation for the administrator certificate. Instructions and forms are available through the certification office:

[www.wce.wvu.edu/Resources/Certification/CFReq/Overview.shtml](http://www.wce.wvu.edu/Resources/Certification/CFReq/Overview.shtml)

### **Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## **Educational Administration Courses**

### **EDAD 501 - Introduction to Educational Research and Evaluation**

Introduction to fundamental concepts and procedures of educational research and evaluation. Interpreting research and evaluation literature and assessing appropriateness of methodology and application of research and evaluation models; utilization of databases for K-12 application in curriculum and instruction decision making.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
Credits: 4

### **EDAD 512 - Policy Studies in Educational Administration**

Introduction to philosophical, ethical, moral and legal bases of educational administration, policy decision-making, and formulation. Study of selected policy development and implementation models in relation to above perspectives.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
Credits: 4

### **EDAD 518 - Current Issues in Education**

Examination and discussion of several current and controversial issues in education. Repeatable with no maximum.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
Credits: 1-5

### **EDAD 538 - Case Studies in School Administration**

Studies to assist students in understanding school administration. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
Credits: 2-4

### **EDAD 539 - Educational Leadership**

Roles and responsibilities of persons serving as members of the leadership team in public schools.

**Prerequisites & Notes:** Teaching experience or instructor permission.  
Credits: 4

### **EDAD 540 - Political and Economic Forces Shaping Education**

A study of major forces and groups at the federal, local and state level which impact education through political and economic means.

**Prerequisites & Notes:** Graduate status or permission of instructor.

Credits: 4

**EDAD 541 - Theory in Educational Administration**

The study of major administrative theories and the impact of management, leadership and decision making for school administrators.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
Credits: 4

**EDAD 542 - Public School Organization and Administration**

Problems and potentials of the principalship.

Credits: 4

**EDAD 543 - Supervision in the Public Schools**

Supervision as educational leadership in continuous evaluation and improvement of school practice.

Credits: 4

**EDAD 544 - Collective Bargaining in the Public Schools**

Technical structure and protocol of collective bargaining as well as issues and practices.

Credits: 4

**EDAD 546 - Administrative Research Topics**

Identification, study and evaluation of research topics appropriate for building level administrators. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
Credits: 2-3

**EDAD 547 - Readings in School Administration**

Supervised study focusing on one or more selected topics. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 2-5

**EDAD 548 - School Law**

Legal principles underlying statutes and court decisions related to the schools.

Credits: 4

**EDAD 549 - Seminar in School Personnel Administration**

Professional relationships among certified employees and other school personnel; development and implementation of policies.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 4

**EDAD 550 - Developing Staff and Community Relations**

Models for planning, implementing and evaluating professional development and school/community relations programs.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
Credits: 4

**EDAD 551 - Systems Approach and Educational Management**

The systems approach as related to educational project planning and management.

Credits: 4

**EDAD 552 - Planning for Curriculum Administration**

Planning and decision-making process as related to development and administration of educational curriculum and innovations.

**Prerequisites & Notes:** Graduate status or permission of instructor.  
Credits: 4

**EDAD 553 - Administering Elementary and Secondary Schools**

Program articulation between elementary and secondary schools as well as unique aspects of these schools.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 4

**EDAD 554 - Administration and the International School**

An examination of the structure, organization and principles by which Western European schools are



## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

financed, staffed and administered. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** instructor permission  
Credits: 2-6

### **EDAD 555 - Seminar in Effective School Practices**

Review and analysis of research findings related to effective school practices.

Credits: 4

### **EDAD 556 - Field Study in Educational Administration**

Design, implementation and evaluation of a field project (6 credits maximum/minimum).

**Prerequisites & Notes:** Advancement to candidacy, permission of instructor and submission of outline indicating scope of project.

Credits: 2-3

### **EDAD 581 - Entry Seminar - Administrator Professional Certification**

Candidates conduct a self-assessment based on the ISLLC standards with a 360-degree review, and district evaluations, and develop a Professional Growth Plan. This is the first step toward Administrator Professional Certification required by the State of Washington. S/U grading.

#### **Prerequisites & Notes:**

Residency Principal or Program Administrator Certificate; two years contracted experience with current contract. Admission to the Administrator Professional Certification Program.

Credits: 3

Grade Mode: S/U

### **EDAD 582 - Core Seminar - Administrator Professional Certification**

This course is designed to guide Administrator Professional Certification candidates in implementing their Professional Growth Plan and developing their portfolio. It is the core of a three-part series designed to assist candidates to meet State Leadership Standards. Repeatable for credit with no maximum. S/U grading.

**Prerequisites & Notes:** EDAD 581 or concurrent;

admission to Administrator Professional Certification Program.

Credits: 2

Grade Mode: S/U

### **EDAD 583 - Culminating Seminar - Administrator Professional Certification**

This course is designed to prepare Administrator Professional Certification candidates for the final phase of the certification process. Candidates prepare and present their final Portfolio and future Professional Growth Plan (PGP). S/U grading.

**Prerequisites & Notes:** EDAD 581 and EDAD 582; Readiness sign-off by University Supervisor and Mentor.

Credits: 2

Grade Mode: S/U

### **EDAD 592 - Field Experience in Administration for the Principal**

Applicants for the Washington State Administrative Certificate. Repeatable with no maximum. S/U grading.

**Prerequisites & Notes:** Permission of instructor.  
Credits: 2-6

Grade Mode: S/U

### **EDAD 594 - Practicum in Action Research**

Field-based studies by entire school building staffs to resolve persistent and significant school problems. Course requirements include the development of an approved proposal for action research. May be repeated with different content. Repeatable to a maximum of 9 credits. S/U grading.

**Prerequisites & Notes:** Teaching experience, permission of instructor.

Credits: 3

Grade Mode: S/U

### **EDAD 640 - Current Topics in Education**

Studies of current topics in educational administration, personnel administration, interprogram topics. Repeatable with no maximum.

**Prerequisites & Notes:** Master's degree; permission of instructor.

Credits: 1-5

**EDAD 641 - Improving Student Learning**

Systematic examination of curriculum and instruction policy development, implementation and maintenance of curriculum models, and development of guidelines for curriculum governance.

**Prerequisites & Notes:** Master's degree; EDAD 552 or equivalent.  
Credits: 4

**EDAD 642 - Effective School System Management**

Examination of important school system management theories and models. Development of strategies for management models implementation, evaluation and maintenance.

**Prerequisites & Notes:** Master's degree; permission of instructor.  
Credits: 5

**EDAD 643 - Advanced Leadership Theory**

Examination of important leadership theories and governance styles as they relate to the role of the K-12 school superintendent. Key focus upon the ethics and fairness of reasoned decision making as a leader.

**Prerequisites & Notes:** Master's degree.  
Credits: 5

**EDAD 644 - Public Policy Formulation and Practice**

Exploration of research-based approaches to the development and implementation of public policy. Examines successful approaches to implementation and dissemination.

**Prerequisites & Notes:** Master's degree.  
Credits: 4

**EDAD 646 - Field Project in Educational Administration**

Repeatable to a maximum of 8 credits.

**Prerequisites & Notes:** Master's degree, permission of instructor and submission of a one-page outline indicating scope of proposed project.

Credits: 2-5

**EDAD 647 - Seminar for School District Leaders**

Current problems and issues facing school administrators.

**Prerequisites & Notes:** Master's degree; applicant for Washington State Superintendent's Certificate; and/or instructor permission.  
Credits: 4

**EDAD 690 - Thesis**

Research study under the direction of a faculty committee. Repeatable to a maximum of 9 credits. S/U grading.

**Prerequisites & Notes:** Advancement to candidacy; approval of student's graduate committee.  
Credits: 1-9  
Grade Mode: S/U

**EDAD 691 - Research Seminar**

Research study under the direction of a faculty committee. Repeatable to a maximum of 6 credits. S/U grading.

**Prerequisites & Notes:** Advancement to candidacy; approval of student's graduate committee/program advisor.  
Credits: 1-6  
Grade Mode: S/U

**EDAD 692 - Field Experience in Administration for the Superintendent**

Applicants for the Washington State Administrative Certificate. Repeatable with no maximum. S/U grading.

**Prerequisites & Notes:** Master's degree and written permission of instructor.  
Credits: 1-6  
Grade Mode: S/U

## Special Education Courses

**SPED 301 - Educational Psychology I: Development and Individual Differences**

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Principles of human development and individual differences as they relate to both academic and non-academic functioning. Emphasis on implications for P-12 classrooms.

**Prerequisites & Notes:** Admission to Woodring College of Education or permission of department chair.  
Credits: 4

**SPED 302 - Educational Psychology II: Motivation, Learning and Assessment**  
Principles of human motivation and learning and their implications for P-12 classrooms; basic statistical and applied concepts used in assessment of student performance.

**Prerequisites & Notes:** SPED 301 or EDUC 301.  
Credits: 4

**SPED 310 - Education, Culture, and Equity**  
Issues of culture and social justice as they impact education, schools, and teaching. Includes a service learning component.

**Prerequisites & Notes:** Admission to Woodring College of Education or permission of instructor or department chair.  
Credits: 4

**SPED 360 - Introduction to Special Education**  
An introduction to characteristics and categories of exceptionality, and the rules and regulations concerning provision of special education and related services. Includes federal and Washington state legislation pertinent to special education from preschool through high school. A minimum of 15 hours of practicum experience required during the quarter.

Credits: 4

**SPED 363 - Secondary Students With Special Needs**  
Introduction to the characteristics and needs of secondary students with special needs; pertinent federal and state laws; curricular and behavior management adaptations in the regular classroom; assessment of learning problems; instructional techniques; behavior management strategies.

**Prerequisites & Notes:** Admission to Woodring

College of Education or permission of instructor.  
Credits: 4

**SPED 364 - Teaching Each Student**  
Introduction to impact of disability and English language acquisition on access to the general education curriculum. Research-based practices in instructional planning to provide access to all elementary students.

**Prerequisites & Notes:** Admission to the Woodring College of Education.  
Credits: 4

**SPED 390 - Special Education Practicum I**  
Practicum experience in a school setting. Designed to provide opportunities for students to observe instructional intervention programs for individual students, small groups, and large groups.

**Prerequisites & Notes:** Special education majors or permission of instructor.  
Credits: 3

**SPED 410 - Supportive Learning Environments**  
Course provides an overview of classroom management, positive behavior intervention support, and strategies for responding to challenging behavior. Includes instruction in lesson design, with an emphasis on effectively using direct instruction and applying universal design for learning principles.

**Prerequisites & Notes:** Admission to Woodring College of Education.  
Credits: 4

**SPED 420 - Effective Teaching**  
Research-based recommended practices in the design, delivery and evaluation of instruction for diverse learners.

**Prerequisites & Notes:** Admission to Woodring College of Education or permission of instructor and concurrent enrollment in SPED 440 and SPED 460.  
Credits: 4

**SPED 430 - Problem Solving for Diverse Needs**

Legal issues and inclusive practices for diverse populations. A collaborative, problem-solving approach to best practices, with an emphasis on school-based services for students with academic, behavioral, and linguistic needs.

**Prerequisites & Notes:** SPED 364; concurrent enrollment in ELED 471  
Credits: 3

**SPED 440 - School Practicum**

Practicum experience in school setting designed to provide opportunities to demonstrate effective teaching and behavior management practices.

**Prerequisites & Notes:** Admission to Woodring College of Education; SPED 390 or permission of instructor; SPED 420 and SPED 460 concurrent.  
Credits: 1-4

**SPED 441 - Analysis and Strategies of Teaching**

Systematic study of teaching; observation; analysis and development of teaching skills and strategies; individual projects. Repeatable to a maximum of 10 cr.

**Prerequisites & Notes:** One course from educational psychology or foundations area, or permission of instructor.  
Credits: 3-5

**SPED 441A - Analysis and Strategies of Teaching**

Systematic study of teaching; observation; analysis and development of teaching and classroom management skills and strategies; individual projects. Repeatable to a maximum of 10 cr. S/U grading.

**Prerequisites & Notes:** One course from educational psychology or foundations area, or permission of instructor.  
Credits: 1-5  
Grade Mode: S/U

**SPED 441B - Analysis and Strategies of Teaching**

Systematic study of teaching; observation; analysis and development of teaching and classroom management skills and strategies;

individual projects. Repeatable to a maximum of 10 cr. S/U grading.

**Prerequisites & Notes:** One course from educational psychology or foundations area, or permission of instructor.  
Credits: 1-5  
Grade Mode: S/U

**SPED 441C - Analysis and Strategies of Teaching**

Systematic study of teaching; observation; analysis and development of teaching and classroom management skills and strategies; individual projects. Repeatable to a maximum of 10 cr. S/U grading.

**Prerequisites & Notes:** One course from educational psychology or foundations area, or permission of instructor.  
Credits: 1-5  
Grade Mode: S/U

**SPED 441D - Analysis and Strategies of Teaching**

Systematic study of teaching; observation; analysis and development of teaching and classroom management skills and strategies; individual projects. Repeatable to a maximum of 10 cr. S/U grading.

**Prerequisites & Notes:** One course from educational psychology or foundations area, or permission of instructor.  
Credits: 1-5  
Grade Mode: S/U

**SPED 441E - Analysis and Strategies of Teaching**

Systematic study of teaching; observation; analysis and development of teaching and classroom management skills and strategies; individual projects. Repeatable to a maximum of 10 cr. S/U grading.

**Prerequisites & Notes:** One course from educational psychology or foundations area, or permission of instructor.  
Credits: 1-5  
Grade Mode: S/U

## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

### **SPED 441F - Analysis and Strategies of Teaching**

Systematic study of teaching; observation; analysis and development of teaching and classroom management skills and strategies; individual projects. Repeatable to a maximum of 10 cr. S/U grading.

**Prerequisites & Notes:** One course from educational psychology or foundations area, or permission of instructor.

Credits: 1-5

Grade Mode: S/U

### **SPED 441G - Analysis and Strategies of Teaching**

Systematic study of teaching; observation; analysis and development of teaching and classroom management skills and strategies; individual projects. Repeatable to a maximum of 10 cr. S/U grading.

**Prerequisites & Notes:** One course from educational psychology or foundations area, or permission of instructor.

Credits: 1-5

Grade Mode: S/U

### **SPED 441H - Analysis and Strategies of Teaching**

Systematic study of teaching; observation; analysis and development of teaching and classroom management skills and strategies; individual projects. Repeatable to a maximum of 10 cr. S/U grading.

**Prerequisites & Notes:** One course from educational psychology or foundations area, or permission of instructor.

Credits: 1-5

Grade Mode: S/U

### **SPED 441I - Analysis and Strategies of Teaching**

Systematic study of teaching; observation; analysis and development of teaching and classroom management skills and strategies; individual projects. Repeatable to a maximum of 10 cr. S/U grading.

**Prerequisites & Notes:** One course from

educational psychology or foundations area, or permission of instructor.

Credits: 1-5

Grade Mode: S/U

### **SPED 441J - Analysis and Strategies of Teaching**

Systematic study of teaching; observation; analysis and development of teaching and classroom management skills and strategies; individual projects. Repeatable to a maximum of 10 cr. S/U grading.

**Prerequisites & Notes:** One course from educational psychology or foundations area, or permission of instructor.

Credits: 1-5

Grade Mode: S/U

### **SPED 441K - Analysis and Strategies of Teaching**

Systematic study of teaching; observation; analysis and development of teaching and classroom management skills and strategies; individual projects. Repeatable to a maximum of 10 cr. S/U grading.

**Prerequisites & Notes:** One course from educational psychology or foundations area, or permission of instructor.

Credits: 1-5

Grade Mode: S/U

### **SPED 441L - Analysis and Strategies of Teaching**

Systematic study of teaching; observation; analysis and development of teaching and classroom management skills and strategies; individual projects. Repeatable to a maximum of 10 cr. S/U grading.

**Prerequisites & Notes:** One course from educational psychology or foundations area, or permission of instructor.

Credits: 1-5

Grade Mode: S/U

### **SPED 441M - Analysis and Strategies of Teaching**

Systematic study of teaching; observation; analysis and development of teaching and

classroom management skills and strategies; individual projects. Repeatable to a maximum of 10 cr. S/U grading.

**Prerequisites & Notes:** One course from educational psychology or foundations area, or permission of instructor.

Credits: 1-5

Grade Mode: S/U

**SPED 441N - Inclusion Strategies Reg Ed**

S/U grading.

Credits: 2

Grade Mode: S/U

**SPED 443 - Early Development Variations**

Typical sequences and patterns of development and interrelationships across all areas from prenatal to age eight, and implications of developmental delays and disabilities.

**Prerequisites & Notes:** SPED 360 or SPED 364; or permission of instructor.

Credits: 4

**SPED 444 - Assessment and Intervention in Early Childhood Special Education**

Issues and resources related to developmental assessment, intervention, and monitoring of infants, toddlers, and preschoolers with delays and/or disabilities. Emphasizes family-centered services, cross-cultural competence, activity-based strategies and teaming.

**Prerequisites & Notes:** SPED 360 or SPED 364; SPED 420 or ELED 370; or permission of instructor.

Credits: 4

**SPED 460 - Interventions for Classroom Management**

Universal and targeted strategies for classroom management including behavioral, social, and cognitive interventions.

**Prerequisites & Notes:** SPED 360; co-requisites: SPED 420, SPED 440; or permission of instructor.

Credits: 4

**SPED 466 - Assessment, Evaluation and IEP**

Referral and assessment for special education eligibility, norm-referenced and teacher-developed assessments, legal and procedural issues in IEP development, and strategies for assessing students from culturally and linguistically diverse backgrounds.

**Prerequisites & Notes:** SPED 420; SPED 360; EDUC 302 or SPED 302; co-requisite: SPED 467. Credits: 4

**SPED 467 - Curriculum-Based Evaluation**

Curriculum-based procedures and formative evaluation. Determining present levels of educational performance, developing associated goals and objectives and monitoring progress. Guidelines for implementation of comprehensive Response to Intervention (RtI) procedures.

**Prerequisites & Notes:** SPED 360; SPED 420; EDUC 302 or SPED 302; co-requisite: SPED 466; or permission of instructor.

Credits: 4

**SPED 468 - Effective Collaboration with Families, Professionals and Community**

Provides students with knowledge and skills for developing and sustaining effective collaborative partnerships with other professionals, paraeducators, family members, and community members. Focus is on effective communication, problem solving, and cultural competence skills necessary for sustaining collaborative relationships within a diverse society.

**Prerequisites & Notes:** SPED 360.

Credits: 4

**SPED 470 - Violent and Aggressive Youth**

This course is designed to present information on the problem of violent and/or aggressive youth in school. The class will stress an educative approach by focusing on what educators can do to prevent, respond to and follow up on acts of violence. S/U grading.

Credits: 3

Grade Mode: S/U

**SPED 471 - Interventions for Learning Problems**

## SPECIAL EDUCATION AND EDUCATION LEADERSHIP

Learning characteristics of students with academic problems. Focuses on attention, motivation and self-monitoring. Emphasis on teaching task-related skills, strategies and content area knowledge needed for students to learn efficiently and effectively.

**Prerequisites & Notes:** SPED 360, SPED 420, SPED 460.  
Credits: 4

### **SPED 472 - Behavior Assessment and Intervention**

Assessment and intervention for students with intensive behavioral needs including functional behavior assessment, positive behavior supports, crisis management, and applied behavior analysis.

**Prerequisites & Notes:** SPED 460, SPED 466, SPED 467; or permission of instructor.  
Credits: 4

### **SPED 473 - Promoting Resiliency in Vulnerable Students**

Exploration of characteristics, identification and special needs of students who are at risk for academic and/or social failure in school due to chemical dependence issues, bilingualism, poverty, dysfunctional family situations or other factors that may interfere with a student's ability to succeed. Analyzes strategies that combine the skills of special and regular education teachers.

**Prerequisites & Notes:** Admission to Woodring College of Education or instructor permission.  
Credits: 3

### **SPED 474 - Students With Complex Needs**

History, philosophy, characteristics and services for students with low incidence disabilities. Empirically-based design of instruction and monitoring of functional curricula for people who need some level of continual support.

**Prerequisites & Notes:** SPED 420, SPED 360, SPED 466.  
Credits: 4

### **SPED 480 - Practicum II: Literacy I**

Practicum experience in school/community settings. Designed to provide opportunities for

students to develop, implement, and monitor literacy intervention programs for individuals or small groups of students.

**Prerequisites & Notes:** SPED 466, SPED 467; co-requisite: SPED 483  
Credits: 1-3

### **SPED 481 - Practicum III: Literacy 2**

Practicum experience in school/community settings. Designed to provide opportunities for students to develop, implement, and monitor instructional intervention programs in literacy for small and large groups.

**Prerequisites & Notes:** Special education majors or permission of instructor.  
Credits: 1-3

### **SPED 482 - Practicum IV: Math**

Practicum experience in school/community settings. Designed to provide opportunities for students to develop, implement, and monitor instructional intervention programs in Math for small and large groups.

**Prerequisites & Notes:** Special education majors or permission of instructor.  
Credits: 1-3

### **SPED 483 - Reading Instruction for Students With Special Needs**

Basic reading instruction for K-12 students in inclusive classrooms; emergent literacy, instructional methods, curriculum and materials; accommodating for individual differences.

**Prerequisites & Notes:** SPED 466, SPED 467; co-requisite: SPED 480  
Credits: 4

### **SPED 484 - Designing Written Expression Interventions**

Written expression decision-making and instruction strategies within the context of Response to Intervention. Aligning instructional strategies to student need through the application of problem-solving, progress monitoring and decision making. Focus on topics such as emergent writing skills, mechanics, sentence fluency, and the writing process.

**Prerequisites & Notes:** SPED 467, SPED 483;  
co-requisites: SPED 481, SPED 482, SPED 485,  
SPED 486  
Credits: 4

**SPED 485 - Designing Math Interventions**

Math decision-making and instruction strategies within the context of Response to Intervention. Aligning instructional strategies to student need through the application of problem-solving, progress monitoring and decision making. Focus on emergent numeracy, computation, problem solving, algebra and functional applications of measurement, time and money.

**Prerequisites & Notes:** MATH 381, SPED 466, SPED 467; co-requisites: SPED 481, SPED 482, SPED 484, SPED 486  
Credits: 4

**SPED 486 - Case Study Applications in Special Education**

Uses the case study method to present situations frequently encountered in special education settings, in review of special education course content and application in preparation for student teaching internships.

**Prerequisites & Notes:** All required SPED 400-level courses can be taken as prerequisites or concurrent.  
Credits: 2

**SPED 490 - Teaching Laboratory**

Diagnosis of students, lesson preparation, videotaped peer teaching, analysis of teaching, lesson redesign.

Credits: 4

**SPED 496 - Internship - Exceptional Children/Early Childhood**

Supervised teaching experience to develop and demonstrate teaching competence for exceptional children. Repeatable to 24 cr. S/U grading.

**Prerequisites & Notes:** Recommendation for supervised teaching.  
Credits: 2-18  
Grade Mode: S/U

**SPED 498 - Internship - Exceptional Children/Elementary**

Supervised teaching experience to develop and demonstrate teaching competence for exceptional children. Repeatable to 24 cr. S/U grading.

**Prerequisites & Notes:** Recommendation for supervised teaching.  
Credits: 2-18  
Grade Mode: S/U

**SPED 499 - Internship - Exceptional Children/Secondary**

Supervised teaching experience to develop and demonstrate teaching competence for exceptional children. Repeatable to 24 cr. S/U grading.

**Prerequisites & Notes:** Recommendation for supervised teaching.  
Credits: 2-18  
Grade Mode: S/U

**SPED 501 - Research in Special Education**

Introduction to the concepts and procedures of contemporary research within special education. Reviewing, analyzing and interpreting research literature applicable to special education. Planning research with exceptional populations including defining research problems, developing relevant hypotheses, and selecting appropriate research designs (including quantitative and qualitative approaches).

**Prerequisites & Notes:** Admission to Graduate school  
Credits: 4

**SPED 503 - Instructional Design for Diverse Learners**

Systematic analysis, design, development and evaluation of instructional systems and practices for diverse learners. Application of instructional design principles and supporting technologies in P-12 and transitional settings, within decision making frameworks and Response to Intervention.

**Prerequisites & Notes:** IT 443 or equivalent; Graduate status; SPED 501 or instructor permission



# SPECIAL EDUCATION AND EDUCATION LEADERSHIP

Credits: 4

## **SPED 510 - Secondary Students With Special Needs**

Rules, regulations, and related funding categories within special education. Includes specialized instruction and evaluation procedures for use in general education settings.

**Prerequisites & Notes:** Admission to Secondary MIT or instructor permission

Credits: 4

## **SPED 518 - Current Issues in Education: Special Education**

Examination and discussion of current issues in special education. Repeatable to a maximum of 10 cr.

Credits: 1-5

## **SPED 542 - Issues in Inclusive Early Education**

Current issues and best practices in early childhood program design and implementation. Emphasis on family-centered, play-based interagency models that serve children of all abilities. Applied research focus.

**Prerequisites & Notes:** Admission to Graduate School or permission of instructor.

Credits: 3

## **SPED 543 - Assessment of Young Children (Birth to 8 Years)**

Issues and resources for accurate and appropriate assessment of young children. Current best practices in instructionally relevant assessment, monitoring child progress and evaluating overall program success. Alternative strategies for assessing the very young child, family needs and special populations. Emphasis on critical evaluation of instruments, psychometric adequacy and technical aspects of test development.

**Prerequisites & Notes:** Admission to Graduate School or permission of instructor

Credits: 4

## **SPED 544 - Inclusive Curriculum in Early Childhood**

Curriculum development and adaptation for infants, toddlers and preschool children. Includes available resources, best practices with the developmentally young and play-based curricula. Focus on model program curricular approaches, the use of daily routines and parent-child interaction as a context and content for curriculum, and peer-mediated learning strategies. Emphasis on efficacy research and the impact of various curricular models.

**Prerequisites & Notes:** Admission to Graduate School or permission of instructor

Credits: 3

## **SPED 560 - Literacy Instruction for Students With Special Needs**

Advanced study of literacy instruction for K-12 students in inclusive classrooms; emphasis on supportive learning environments including computers, adaptive equipment, peer-mediated learning strategies, and accommodation for individual differences; includes theories of literacy acquisition, research-based instructional methods, curriculum and material, related disabilities, and assessment and evaluation.

**Prerequisites & Notes:** SPED 480, SPED 483; or equivalent; or permission of instructor.

Credits: 4

## **SPED 562 - Learning Problems**

Information processing and learning theory as it applies to students with mild disabilities. Discusses assessment and evaluation of cognitive strategies and their application to academic and social skill development.

**Prerequisites & Notes:** Admission to graduate program or permission of instructor.

Credits: 4

## **SPED 563 - Curriculum and Methods in Special Education**

Analysis and application of curricular design, research-based instructional models, and assistive technology with discussions of universal design and legal mandates.

Credits: 4

**SPED 564 - Social Skills**

Applied behavior analysis for children with learning and behavioral problems. Emphasis on functional assessment, single-subject research design and the teaching of social skills.

**Prerequisites & Notes:** Admission to graduate program or permission of instructor  
Credits: 4

**SPED 565 - Communication and Collaboration in Special Education**

The collaborating teacher's role in providing special education services to children in integrated settings. Emphasizes instructional and communication skills needed to achieve that role.

**Prerequisites & Notes:** SPED 468; or equivalent; or permission of instructor  
Credits: 4

**SPED 567 - Advanced Issues in Special Education**

Intensive study of legal, intervention and ethical issues in special education. Repeatable to a maximum of 6 credits.

Credits: 2

**SPED 568 - Curriculum-Based Evaluation and Decision Making**

Advanced evaluation and decision-making processes. Focus on curriculum-based procedures, formative evaluation, and educational decision making. Emphasis on generating present levels of educational performance and associated goals and objectives.

Credits: 4

**SPED 570 - Violent and Aggressive Youth**

This course is designed to present information on the problem of violent and/or aggressive youth in school. The class will stress an educative approach by focusing on what educators can do to prevent, respond to and follow up on acts of violence. S/U grading.

Credits: 3  
Grade Mode: S/U

**SPED 590 - Seminar in Demonstration Teaching and Supervision**

Advanced studies in the principles of supervision; utilization of instructional resources and the evaluation and improvement of teaching.

**Prerequisites & Notes:** ELED 442.  
Credits: 3

**SPED 598 - Residency in Special Education**

Full-time residency placement in a special education environment in the public schools. Repeatable to a maximum of 16 cr.

Credits: 4-16

**SPED 599 - Internship: Exceptional Children**

Full-time teaching placement in a special education environment for ME. certification students. Not applicable to graduate plans of study. Repeatable to 24 credits. S/U grading.

Credits: 8-16  
Grade Mode: S/U

**SPED 690 - Thesis**

Research study under the direction of a faculty committee. Repeatable to a maximum of 9 cr. S/U grading.

**Prerequisites & Notes:** Approval of student's graduate committee and successful completion of the qualifying exam.

Credits: 1-9  
Grade Mode: S/U

**SPED 691 - Research Seminar**

Graduate research under the direction of a program advisor/committee. Repeatable to a maximum of 6 credits. S/U grading.

**Prerequisites & Notes:**

Approval of student's graduate committee and successful completion of the qualifying exam.

Credits: 1-6  
Grade Mode: S/U

# Teacher Education Outreach Programs

## Teacher Education Outreach Programs

Teacher Education Outreach Programs offers professional education programs that lead to recommendation to the Office of the Superintendent of Public Instruction for residency teacher certification in the state of Washington. These programs integrate studies in Elementary Education, Special Education, and across eight additional disciplines, including math, science, health, and physical education.

The course work for undergraduate and post-baccalaureate programs is offered in a prescribed sequence with evening classes, and daytime practicum work. Upon completion of the major (undergraduates), the professional studies core, the endorsement course work and internship, students will receive a teaching certificate with an endorsement in elementary education. Students may choose to complete a second internship to earn an additional endorsement in special education.

The programs, designed to prepare thoughtful, knowledgeable, and effective educators for a diverse society, offer courses and certification sequences at Western Washington University program sites in Bremerton, Everett, and Seattle. Prospective students are encouraged to contact the site office closest to them for information on program offerings that meet their individual needs.

### Information

Individuals interested in Teacher Education Outreach Programs can obtain general information from the Website, [www.wce.wvu.edu/Depts/TEOP](http://www.wce.wvu.edu/Depts/TEOP).

Inquiries should be directed to the site you wish to attend. Bremerton, 360-475-7272; Everett, 425-259-8918; Seattle, 206-934-6052.

## Teacher Education Outreach Programs

- BA in Education (Special Education major) leading to a teacher certificate endorsed in Elementary Education
- Post-Baccalaureate teacher certification with Elementary Education endorsement
- Special Education (P-12) additional endorsement (certificated teachers only)
- Elementary Education additional endorsement (certificated teachers only)
- The No Child Left Behind (NCLB) "highly qualified teacher" requirement may impact eligibility for certain middle school teaching assignments in a core academic subject(s). Students are responsible for consulting with an advisor for further information on NCLB.

### Certification

The Washington Administrative Code specifies the requirements for earning a Washington state teacher certificate. State-approved preparation programs and certification requirements align with state learning goals and essential academic learning requirements, and require candidates to demonstrate that they have made a positive impact on student learning. First-level residency certification programs are designed around the standards of effective teaching, professional development, and teaching as a profession. Second-level professional certification requirements are designed around the standards of effective teaching, professional development, and professional contributions. State requirements for teacher certification at the time of completion of a student's program will supersede those outlined in this catalog. These changes may affect the time it takes for a student to complete the teacher education program.

### Residency Teacher Certification

The first-level residency certificate is awarded to new teachers upon the completion of these general requirements:

- A baccalaureate or higher-level degree from a regionally accredited college or university
- A state-approved, performance-based teacher preparation program that includes preparation in an endorsable subject area, teaching methodology, and an internship
- Evidence of good moral character and personal fitness

## TEACHER EDUCATION OUTREACH PROGRAMS

Candidates for residency certification must pass a subject knowledge assessment, the Washington Educator Skills Test — Endorsements (WEST-E), to receive an endorsement for certification. WWU requires submission of a passing WEST-E score for each endorsement to be earned, before commencement of the student teaching internship. For current information on test requirements, refer to the WEST-E Resource Website, [www.wce.wvu.edu/Resources/Endorsements/WEST-E.shtml](http://www.wce.wvu.edu/Resources/Endorsements/WEST-E.shtml). Candidates for residency certification must also complete the state of Washington Preservice Teacher Performance Assessment during the student teaching internship.

Application for the residency certificate is made to the Woodring Certification Office, Teacher Education Student Services, Miller Hall 150, phone 360-650-4930, no later than three months prior to the start of the internship. Candidates will be contacted by the program site or certification supervisor with required application materials.

The first-issue residency certificate has no defined expiration date. It is valid until the teacher completes 1.5 FTE years of successful teaching experience accumulated over a minimum of two years in a state-approved public, private or state operated education program. A three year residency certificate is then issued by the state. The timeline for earning a second level professional certificate begins with the reissued residency certificate.

### *Professional Teacher Certification*

The second-level professional certificate is awarded to experienced teachers who hold a valid residency certificate and who pass the Washington ProTeach Portfolio assessment or earn national board certification through the National Board of Professional Teaching Standards. For further information on professional certification requirements, contact the Woodring College of Education certification officer at 360-650-4630, Miller Hall 150.

### **Endorsements**

An endorsement identifies the subject matter in which a teacher is prepared and authorized by the state to teach. One qualifying endorsement is required for residency certification. Courses required for a teaching endorsement and the professional education sequence must be completed with a grade of C (2.0) or better. For information on additional endorsement programs offered throughout the University, contact the Woodring College of Education certification officer at 360-650-4630, Miller Hall 150.

### *Approved Academic Majors*

Post-baccalaureate students seeking teacher certification and an endorsement in elementary education through Teacher Education Outreach programs must have completed an approved academic major in anthropology, art, communication, English, environmental studies, foreign language, general science, geography, geology (earth science), history, humanities, elementary education studies, mathematics, music, psychology (human development), social studies, sociology, special education or student/faculty designed major. For further information on the applicability of a particular major, contact any Teacher Education Outreach Programs site.

### *Program Length*

The sequence of study for teacher certification is designed for students who hold a transferable Associate of Arts degree (DTA) from a Washington State community college, or have satisfied Western's General University Requirements, or have a bachelor's degree with an approved major and are seeking certification. Students begin their program in the fall at all sites and move through their programs as a cohort.

- Students earning a BA in Education attend class for 11 quarters, including the internship, or 12 quarters if earning the Special Education endorsement through the additional endorsement program.
- Post-Baccalaureate students attend classes for 7 quarters, including the internship.

### *Admission Requirements*

All applicants to undergraduate and post-baccalaureate teacher certification programs must be formally admitted to both Western Washington University and the applicable program. Admission occurs once a year in the fall.

The requirements listed below are minimum application criteria. Enrollment restrictions apply to all teacher education programs. Meeting the following requirements makes the applicant eligible for admission

## TEACHER EDUCATION OUTREACH PROGRAMS

consideration but does not guarantee admission. Students who meet all criteria are further evaluated by the department to determine the most qualified applicants. Students will be evaluated on all information provided with the application, including required copies of transcripts from all prior colleges.

### *Application criteria:*

- Transferable associates degree from a Washington State community college or satisfaction of the Western Washington University general education requirements (undergraduate program only).
- Bachelor's degree in an approved academic major (post-baccalaureate program only).
- Cumulative grade point average of 2.75 or higher overall college-level course work or over the last 45 credits.
- Passing scores on all three subtests (reading, mathematics, writing) of the Washington Educator Skills Test-Basic (WEST-B); visit the WEST-B website at [www.west.nesinc.com](http://www.west.nesinc.com) for more information.
- Completion of an English composition course with a grade of B- (2.7) or higher.
- Three letters of recommendation and a reflective essay.

### *Advisement and Orientation*

Upon acceptance to the Woodring College of Education, each student is assigned an advisor. At all Teacher Education Outreach Program sites, the advisor is the academic program director. Additionally, all accepted students must attend a required orientation. Students may be dropped from their program for failing to attend the orientation.

### *Program Continuation*

Students admitted to the Woodring College of Education must meet specified requirements throughout the course of their teacher education program in order to remain in the program.

### *Requirements upon Program Admission*

- Institutional Application for a Teacher's Certificate and Character and Fitness Supplement, and background checks as described below under Character and Fitness
- Woodring College of Education Professionalism Orientation
- Woodring College of Education Prevention of Sexual Harassment Training
- Woodring College of Education Blood-Borne Pathogens Training

### *Character and Fitness*

The Washington Administrative Code requires applicants for teacher certification to give evidence of "good moral character and personal fitness." Students provide evidence of character and fitness through two separate but related processes:

- An Institutional Application for a Teacher's Certificate and Character and Fitness Supplement, provided to students upon acceptance into the program. The application for certification requires candidates to answer questions regarding professional fitness, criminal history and personal conduct. Students with "yes" responses must contact the certification officer at (360) 650-4630 before registering for classes
- Washington State Patrol and FBI background checks through a fingerprinting process. Procedures and fee information are provided to students upon acceptance into the program

No student in a teacher education program may participate in a University-sponsored activity in the public schools until cleared by the Washington State Patrol, or in some cases, investigated and then cleared by the Washington State Office of Superintendent of Public Instruction. Clearances are valid for specified time frames. Students must maintain character and fitness clearance until they have been recommended for a residency teacher certificate following completion of the teacher education program.

In addition to the Washington state character and fitness requirements noted above, students must abide by the Woodring College of Education conduct policies acknowledged in the Student Conduct Requirements and Agreement, which is submitted with program application materials.

### *General Retention Requirements*

- Students must maintain at least a 2.75 GPA, beginning with the quarter they are notified of admission. This requirement applies even to quarters where no education courses are being taken. Students who fail to meet this standard will receive a letter advising them that they have been dropped from the program.

## TEACHER EDUCATION OUTREACH PROGRAMS

- Students must earn a grade of C (2.0) or better in both the professional education sequence and in all courses required for the endorsement
- Students must understand and demonstrate a high level of competence in the English language. Those who have difficulty in their verbal and/or written communications should expect to seek remediation before beginning the internship
- Students who interrupt enrollment in a teacher education program for more than two consecutive quarters (summer quarter not included) must meet all program admission, completion and certification requirements in place for the quarter in which they expect to return.

### *Program Completion*

To qualify for program completion and recommendation for state of Washington residency certification, students must complete the following requirements and assessments:

- A baccalaureate or higher-level degree from a regionally accredited college or university
- A state-approved, performance-based teacher preparation program that includes preparation in an endorsable subject area, teaching methodology, and an internship
- Evidence of good moral character and personal fitness
- Minimum scores set by the state of Washington on the Washington Educator Skills Test (WEST-E) for the qualifying endorsement area(s)
- Completion of the Washington Pre Service Teacher Performance Assessment
- Successful completion of the student teaching internship as shown by performance on the WWU Intern Development and Evaluation System (IDES)

## **Other Departmental Information**

### *Internship*

An important experience for teacher certification candidates is the student teaching internship. Students spend two quarters taking final classes in the program along with time in their assigned classroom preparing for quarter three when they are full-time teaching under the direct supervision of a certificated teacher in a school setting. This internship involves intensive practice in integrating methods, content area knowledge, and classroom organizational strategies.

Students will be able to work part time during two quarters of the three quarter internship. Candidates are advised not to work during the full-time internship so they may gain maximum benefit from the experience and perform at their highest ability.

The Office of Field Experiences (OFE) is the service agency of the Woodring College of Education that seeks placement for prospective interns. Students apply for their internship around January prior to a fall internship start quarter, or April prior to a winter or spring internship start quarter. Specific dates for informational meetings and application deadlines are published on the OFE Website, [www.wce.wvu.edu/Resources/OFE](http://www.wce.wvu.edu/Resources/OFE). Before commencement of the internship, passing scores on the WEST-E for each endorsement must be submitted, all educational endorsement course work and practica must be completed, and fingerprint/character and fitness clearance must be valid. Students who interrupt enrollment for a quarter or more must meet the deadline for filing a returning student application.

OFE does not guarantee placements. Placement in a school is contingent upon:

- Fulfillment of all program requirements (satisfactory academic work, education and endorsement program course work and training, practica, and faculty recommendations)
- Submission of passing scores on the WEST-E test(s) for each endorsement
- Availability of placements and supervision in specific subjects and grade levels
- Acceptance by P-12 school personnel
- Fingerprint/character and fitness clearance through the point of certification

Students are required to interview with the public school teacher to whom they will be assigned, for final approval of placement. OFE will make every effort to arrange up to three initial interviews but does not guarantee an interview.

## TEACHER EDUCATION OUTREACH PROGRAMS

Any subsequent placement after a voluntary or non-voluntary withdrawal from an internship will be granted only by faculty recommendation following a case conference.

For further information, contact the Woodring College Office of Field Experiences, Student Services, phone 360-650-3310, Miller Hall 150.

# Interdisciplinary Studies

## All-University Programs

Western Washington University is organized into seven colleges and a Graduate School. This organization not only accommodates Western's size and complexity, but also enables flexibility and innovation in Western's curriculum.

Some programs at Western are available through one department or college; some are interdisciplinary, involving several academic units; and some, the All-University Programs listed below, involve all or most of Western's departments and colleges.

### Center for International Studies

360-650-7544

<http://www.wwu.edu/international/>

The Center for International Studies serves Washington State by providing internationally-focused educational experiences that prepare students to be global citizens and by supporting faculty and staff who are engaged inter-culturally.

## International Programs and Exchanges

### *Study Abroad*

International Programs and Exchanges (IPE) administers and cooperates in more than 100 international study abroad programs in Asia, Europe, Latin America, Middle East, Oceania and Africa. A variety of study abroad, exchange and international internship options are available for a quarter, semester, or year-round. Qualified students for all study abroad and international exchange programs are concurrently enrolled at the University and the study abroad program or institution, earn WWU credit and maintain financial aid eligibility and residency.

Faculty-led Global Learning and international study courses within departments are normally assigned x37 course numbers. At the completion of a study abroad or exchange program, credits for course work may be applied to major, minor or electives toward graduation. Since special application and registration procedures are required for participation in study abroad or exchange programs, it is important to contact IPE well in advance of the program deadline.

IPE, in collaboration with Extended Education (EE), provides support to the development and implementation of Global Learning programs. IPE also provides administrative support to the International Programs and Advisory Committee (IPAC).

For more information, contact International Programs and Exchanges, Miller Hall 208, 360-650-3298, [ipe@wwu.edu](mailto:ipe@wwu.edu); [www.wwu.edu/ipe](http://www.wwu.edu/ipe).

## International Student and Scholar Services

The ISSS Office serves international students, faculty and scholars at Western by providing orientation sessions, advising, and co-curricular activities as well as preparation and maintenance of immigration records. In coordination with other university offices and community resources, ISSS also assists with resolving financial, personal, academic, and employment issues for Western's international population.

For more information, contact International Student and Scholar Services, Miller Hall 212, 360-650-6517.

### Center for Service-Learning

360-650-7542

[www.wwu.edu/csl](http://www.wwu.edu/csl)



## INTERDISCIPLINARY STUDIES

Service-learning is an experiential learning method in which students learn through active participation in meaningful service experiences that meet community needs. Service-learning offers students the opportunity to learn outside the classroom, explore the richness and diversity of their community, and examines social justice issues while applying classroom theory in a community setting.

The Center for Service-Learning provides resources, including training and program support, to students, faculty, and community partner organizations.

Western offers many courses that include service-learning; look for the SL designation on Classfinder or contact the Center to learn more.

### **Field Experience Programs**

Western Washington University recognizes that work experience outside of the classroom can enhance student learning by providing opportunities to put theory into practice. To this end, the University works closely with a wide variety of businesses and community and governmental agencies which offer internship opportunities, and many academic departments require or make academic credit available for field experience.

Students interested in exploring field experience opportunities should contact the Career Services Center, Old Main 280.

### **Pre-Professional Pathways**

Admission to graduate professional schools requires a baccalaureate degree and is competitive. Early consultation with the relevant advisor and excellent academic work are crucial to success.

#### *Dentistry*

Admission to dental schools is highly selective and includes evaluation of GPA, letters of recommendation, scores from the Dental Admission Test (DAT), and an interview, as well as demonstrated dental knowledge and community service.

Course requirements for entry into a dental program afford each applicant an opportunity to pursue almost any area of interest as a major field of study and still acquire the background necessary to prepare for the DAT and to pursue a dental curriculum. The DAT must be taken the year prior to admission to dental school; normally it is taken in the junior year.

Early consultation with a pre-professional advisor is strongly recommended. Students will find it valuable to engage in early and regular discussions of matters such as selection of a major, course sequences and graduation requirements at Western, as well as dental school entrance requirements, application procedures, the DAT, mock interview, and other pertinent information.

Typical freshman year curriculum:

- CHEM 121, 122, 123 (begin 121 as soon as possible)
- BIOL 204, 205, 206 (continues into second year)
- ENG 101
- MATH (pre-calculus or calculus, depending upon major)

Pre-dentistry students should also seek advising in their major department.

Advisors: Dr. George Kriz, Director of Advising for Pre-Healthcare Professions, [George.Kriz@wwu.edu](mailto:George.Kriz@wwu.edu); Renée Murray, Graduate and Pre-Professional Programs Advisor, [Renee.Murray@wwu.edu](mailto:Renee.Murray@wwu.edu); Old Main 280, 360-650-3268.

[www.wwu.edu/careers/prehealth\\_dentistry.shtml](http://www.wwu.edu/careers/prehealth_dentistry.shtml).

#### *Law*

Law schools require a baccalaureate degree. They do not require a specific undergraduate major, but do seek students who are broadly educated. Admission is selective based primarily on GPA, LSAT scores and letters of recommendation. Law schools want students who excel in oral and written communication; understand economic, political and social institutions; and have well-developed objective and critical thinking skills.

Western's General University Requirements are intended to aid students in honing these skills.

The Law School Admission Test (LSAT), normally required of applicants to American and Canadian law schools, is offered on the Western campus several times each year. Applications and test schedule information may be obtained from the Testing Center and the Department of Political Science. Students should plan to take the LSAT late in their junior year or early in their senior year.

Students are encouraged to explore academic and extracurricular opportunities provided by Fairhaven College's Center for Law, Diversity and Justice (CLDJ). All WWU students are eligible to apply to join the Law, Diversity and Justice minor, and Fairhaven students are eligible to pursue a Law, Diversity and Justice concentration (major). For more information on the Center for Law, Diversity and Justice and the LDJ curriculum, contact Prof. Julie A. Helling, Fairhaven College of Interdisciplinary Studies.

Advisors: Dr. Paul Chen, Department of Political Science, Arntzen Hall 436, 360-650-4876, Paul.Chen@wwu.edu; Julie A. Helling, Fairhaven College, FA 311, 360-650-4907, Julie.Helling@wwu.edu.

### *Medicine*

The faculties of the School of Medicine at the University of Washington and other medical and osteopathic schools in the U.S. believe that the appropriate level of scholarly achievement and preparation for medicine can best be developed in a liberal arts program with the emphasis on a discipline selected by the student. In recognition of the diverse opportunities afforded the graduate in medicine, specified entrance requirements are purposely kept to a minimum. This enables each student to pursue, as a major field of study, almost any area of interest — the arts, humanities, social sciences, biological or physical sciences — and still acquire the background necessary to prepare for the Medical College Admission Test (MCAT) and to pursue a medical curriculum. The MCAT must be taken at least one full year prior to the date of admission to medical school; normally it is taken in the junior year.

Early consultation with the pre-professional advisors is strongly recommended. Students will find it valuable to engage in early and regular discussions of matters such as selection of a major, course sequences, community service, physician shadowing, and graduation requirements at Western, as well as medical school entrance requirements, application procedures, the MCAT, mock interview, and other pertinent information.

Typical freshman year curriculum:

- CHEM 121, 122, 123 (begin 121 as soon as possible)
- BIOL 204, 205, 206 (continues into second year)
- ENG 101
- MATH 124 and 125
- PSY 101
- General University Requirements

Premed students should also seek advising in their major department.

Advisors: Dr. George Kriz, Director of Advising for Pre-Healthcare Professions, George.Kriz@wwu.edu; Renée Murray, Graduate and Pre-Professional Programs Advisor, Renee.Murray@wwu.edu, Old Main 280, 360-650-3268; [www.wwu.edu/careers/prehealth.shtml](http://www.wwu.edu/careers/prehealth.shtml).

### *Optometry*

Twenty-one accredited optometry programs in the U.S. offer the Doctor of Optometry (OD). Admission into an optometry program is highly selective and includes evaluation of GPA, letters of recommendation, scores from the Optometry Admission Test (OAT), an interview, and demonstrated exposure to the profession.

A strong and broad undergraduate academic background in Chemistry, Biology, Mathematics, Physics, English and Psychology is emphasized yet no specific major is preferred. Students may pursue a major of any area of interest while still acquiring the background necessary to prepare for the Optometry Admission Test (OAT) and to pursue an optometry curriculum. The OAT must be taken at least one full year prior to admission to optometry school; normally it is taken in the junior year.

Early consultation with the pre-professional advisors is strongly recommended. Students will find it valuable to engage in early and regular discussions of matters such as selection of a major, course sequences, community service, and graduation requirements at Western, as well as optometry school entrance requirements, application procedures, the OAT, mock interview, and other pertinent information.

## INTERDISCIPLINARY STUDIES

Typical freshman year curriculum:

- CHEM 121, 122, 123 (begin 121 as soon as possible)
- BIOL 204, 205, 206 (continues into the second year)
- ENG 101
- MATH 124
- PSY 101
- General University Requirements (including public speaking)

Pre-optometry students should also seek advising in their major department.

Advisors: Dr. George Kriz, Director of Advising for Pre-Healthcare Professions, [George.Kriz@wwu.edu](mailto:George.Kriz@wwu.edu); Renée Murray, Graduate and Pre-Professional Programs Advisor, [Renee.Murray@wwu.edu](mailto:Renee.Murray@wwu.edu); OM 280, 360-650-3268, [www.wwu.edu/careers/prehealth.shtml](http://www.wwu.edu/careers/prehealth.shtml).

### *Pharmacy*

Programs at Washington State University, University of Washington, and other institutions lead to a Doctor of Pharmacy degree. Western provides courses that prepare students for admission to these and other programs. Admission into a pharmacy program is highly selective and includes evaluation of GPA, letters of recommendation, scores from the Pharmacy College Admissions Test (PCAT) or Graduate Record Examination (GRE), and an interview.

Students can pursue almost any area of interest as a major field of study and still acquire the background necessary to prepare for the PCAT (or GRE) and pursue a pharmacy curriculum. The PCAT (or GRE) must be taken the year prior to admission to pharmacy school; normally it is taken in the junior year.

Because admission requirements at pharmacy programs are highly variable, students are strongly encouraged to seek advisement from the pre-healthcare professions advisors. Students will find it valuable to engage in early and regular discussions of matters such as selection of a major, course sequences, GUR courses, community service, and graduation requirements at Western, as well as pharmacy school entrance requirements, application procedures, the PCAT and GRE, mock interview, and other pertinent information.

Typical freshman year curriculum:

- CHEM 121, 122, 123 (begin 121 as soon as possible)
- BIOL 204, 205, 206 (continues into the second year)
- ENG 101
- MATH 124
- PSY 101
- General University Requirements (including public speaking)

Pre-Pharmacy students should also seek advising in their major department.

Advisors: Dr. George Kriz, Director of Advising for Pre-Healthcare Professions, [George.Kriz@wwu.edu](mailto:George.Kriz@wwu.edu); Renée Murray, Graduate and Pre-Professional Programs Advisor, [Renee.Murray@wwu.edu](mailto:Renee.Murray@wwu.edu), OM 280, 360-650-3268, [www.wwu.edu/careers/prehealth.shtml](http://www.wwu.edu/careers/prehealth.shtml).

### *Physical Therapy*

Admission to a graduate program in physical therapy is highly selective. Students prepare for entry by obtaining a baccalaureate degree, completing the prerequisite course work for entry into each specific program, and by obtaining volunteer clinical experience. Students may complete undergraduate degrees in any area. Most physical therapy programs are three-year programs offered at the doctoral level.

Admission requirements for entry into a physical therapy program include the completion of a required prerequisite set of courses, three letters of recommendation and the completion of an internship under the direction of a physical therapist (200 to 500 hours). Most programs require submission of scores from the Graduate Record Exam (GRE — general test only) and some require a minimum score on the two sections of the GRE. The GRE should be taken in the fall quarter of the application year.

Specific information on each program can be obtained from the PT Education link on the American Physical Therapy Association home page at [www.apta.org](http://www.apta.org). Program prerequisites, statistics, and curriculums are

presented by geographic location. Students are encouraged to review prerequisite courses early in their academic planning and to develop a plan of study within the first quarter of entry to Western.

Courses which are common to many prerequisite requirements for physical therapy programs:

- BIOL 204, 205
- BIOL 348, 349
- CHEM 121, 122, 123
- PHYS 114, 115, 116
- PSY 101, 230 or 250
- Statistics

Advisors: Dr. Gordon Chalmers, ET 275, 360-650-3113, Gordon.Chalmers@wwu.edu; Dr. Dave Suprak, CV 105, 360-650-2586, Dave.Suprak@wwu.edu

To schedule a meeting with an advisor contact: PEHR General Office (CV 102, Sherena.Geariety@wwu.edu, 360-650-3505) and she will assign you to an advisor. Then you should contact your assigned advisor to schedule an appointment.

Pre-physical therapy advising webpage: <http://www.wwu.edu/alliedhealth/Pre-Physical%20Therapy.shtml>

### *Pre-Nursing & Nursing*

Western does not offer a nursing education program but many Western students enter nursing programs by transferring to a nursing program or by entering a nursing program after graduation. Registered Nurse (R.N.) credentials are obtained after successfully completing a state board examination following completion of a certified nursing program at the community college Associate of Science in Nursing (ASN), also known as an Associate Degree in Nursing (ADN), a four-year university (BSN) or direct-entry Masters of Science (MSN) program. (A 'direct entry masters' is a master's degree that accepts students who have a bachelor's degree, but do not have a RN credential. Some MSN programs, such as University of Washington's are only for students who already are RNs). To be eligible for a nursing education program, students must complete a specified set of prerequisites and obtain volunteer or paid health care experience. Students may work on completing the prerequisites at WWU and apply for entry into the ASN or BSN program, with or without a degree at WWU. Completion of a degree is required for the direct-entry MSN program. Western's RN to BSN program is for nurses who have already obtained RN credentials, and subsequently wish to obtain a Bachelor's degree in nursing (BSN). Information on Western's RN to BSN program is available from the university Extended Education office and website: <http://www.acadweb.wwu.edu/eesp/template/bsn/bsn.shtml>.

Information on nursing education programs can be obtained from: the National League For Nursing Accrediting Commission, [www.nlnac.org/Forms/directory\\_search.htm](http://www.nlnac.org/Forms/directory_search.htm), the American Association of Colleges of Nursing, [www.aacn.nche.edu/CCNE/reports/accprog.asp](http://www.aacn.nche.edu/CCNE/reports/accprog.asp), and [www.allnursingschools.com/](http://www.allnursingschools.com/).

Pre-Nursing is not a major at WWU. Examples of Western majors that cover some or all of the prerequisites include: Biology-Anthropology, Biology, Community Health and Kinesiology/Pre-Healthcare Professions.

Volunteer work: It is recommended that students obtain 200+ hours of volunteer or paid health care experience. It is also recommended that students consider obtaining the Certified Nursing Assistant license via a local technical or community college.

Advisors: Dr. Gordon Chalmers, ET 275, 360-650-3113, Gordon.Chalmers@wwu.edu; Dr. Dave Suprak, CV 105, 360-650-2586, Dave.Suprak@wwu.edu

To schedule a meeting with an advisor contact: PEHR General Office (CV 102, Sherena.Geariety@wwu.edu, 360-650-3505) and she will assign you to an advisor. Then you should contact your assigned advisor to schedule an appointment.

Pre-nursing advising webpage: <http://www.wwu.edu/alliedhealth/Pre-Nursing.shtml>

### *Occupational Therapy*

Students prepare for entry to a graduate program in occupational therapy by obtaining a baccalaureate degree, completing the prerequisite course work for entry into specific programs, and by obtaining a broad variety of volunteer clinical experience under the direction of an occupational therapist. Students may

## INTERDISCIPLINARY STUDIES

complete undergraduate degrees in any area. Most programs require submission of scores for the Graduate Record Exam (GRE - general test only).

Specific information on each occupational therapy program can be obtained from the American Occupational Therapy Association at [www.aota.org/Educate/Schools.aspx](http://www.aota.org/Educate/Schools.aspx). Students are encouraged to review prerequisite courses early in their academic planning and to develop a plan of study within the first quarter of entry to Western.

Pre-Occupational Therapy is not a major at WWU. Examples of Western majors that cover some or all of the prerequisites include: Biology-Anthropology, Community Health and Kinesiology/Pre-Healthcare Professions. Courses which are common prerequisites to many occupational therapy programs:

- PSY 101, 230, 250
- BIOL 204, 205
- BIOL 348, 349
- CHEM 121, 122
- PHYSICS 101
- MATH 240, KIN 307 or BIOL 340

Advisors: Dr. Gordon Chalmers, ET 275, 360-650-3113, [Gordon.Chalmers@wwu.edu](mailto:Gordon.Chalmers@wwu.edu); Dr. Dave Suprak, CV 105, 360-650-2586, [Dave.Suprak@wwu.edu](mailto:Dave.Suprak@wwu.edu)

To schedule a meeting with an advisor contact: PEHR General Office (CV 102, [Sherena.Geariety@wwu.edu](mailto:Sherena.Geariety@wwu.edu), 360-650-3505) and she will assign you to an advisor. Then you should contact your assigned advisor to schedule an appointment.

Pre-occupational therapy advising webpage: <http://www.wwu.edu/alliedhealth/Pre-Occupational%20Therapy.shtml>.

### *Veterinary Medicine*

Washington State University and 27 other U.S. veterinary medical colleges offer the Doctor of Veterinary Medicine (DVM). Admission into a veterinary medicine program is highly selective and includes evaluation of GPA, Graduate Record Exam (GRE), extracurricular and community service, volunteer experience within the field, letters of recommendation and an interview. Western offers coursework that will satisfy the prerequisites of most DVM programs.

Students can pursue almost any area of interest as a major field of study and still acquire the background necessary to prepare for the GRE and pursue a veterinary medicine curriculum. The GRE must be taken at least one full year prior to admission to veterinary medical school; normally it is taken in the junior year. Because admission requirements at veterinary medical schools are highly variable students are strongly encouraged to seek advisement from the pre-healthcare professions advisors. Early and ongoing consultation with the pre-professional advisors is strongly recommended to discuss matters such as selection of a major, course sequences, community service, graduation requirements, application procedures, the GRE, mock interview, and other pertinent information.

Typical freshman year curriculum:

- CHEM 121, 122, 123 (begin 121 as soon as possible)
- BIOL 204, 205, 206 (continues into second year)
- ENG 101
- MATH 124
- General University Requirements (Public speaking beneficial for approximately 1/2 of the Veterinary Medicine schools).

Pre-veterinary students should also seek advising in their major department.

Advisors: Dr. George Kriz, Director of Advising for Pre-Healthcare Professions, [George.Kriz@wwu.edu](mailto:George.Kriz@wwu.edu); Renée Murray, Graduate and Pre-Professional Programs Advisor, [Renee.Murray@wwu.edu](mailto:Renee.Murray@wwu.edu); OM 280, 360-650-3268, [www.wwu.edu/careers/prehealth.shtml](http://www.wwu.edu/careers/prehealth.shtml).

### **Professional Transfer Programs**

Students who plan to complete a baccalaureate program at another institution should seek advice from that institution for curriculum planning, test requirements and information on application procedures. The Western advisor listed below is also available to students.

The institution to which the student is transferring determines admission to the program and makes decisions regarding the transferability of credit.

Programs undergo constant revision. The student, therefore, must bear responsibility for continued contact with the transfer institution.

### **Engineering**

Western provides two curricular paths to a career in engineering. The Two-Plus-Two program requires two years of study at Western Washington University followed by two or more years of study at an engineering college.

The second path is a dual degree program the Three-Two program, that requires three years at Western Washington University followed by two years of study at the College of Engineering at the University of Washington. At the conclusion of this five-year program students will receive two degrees: the Bachelor of Arts from Western and the Bachelor of Science in Engineering from the University of Washington.

The primary purpose of both pre-engineering programs is to provide a strong fundamental education in science and mathematics, to develop skills necessary for success at an engineering college. In addition to courses in science and mathematics, engineering schools and colleges also require additional courses distributed in social sciences and humanities, which can be selected from Western's offerings, to meet the requirements of the specific engineering school to which the student intends to transfer. Note that most engineering schools specify a minimum number of credits completed and a competitive grade point average for admission to a given engineering program.

### **Pre-Engineering Program**

While at Western, students may complete two years of courses in science and mathematics, and other areas depending upon the engineering field of interest. The choice of courses should be tailored to meet the requirements of the engineering school to which the student plans to transfer. Transfer generally occurs after two years of study.

### **Three-Two Dual Degree Program**

Western cooperates with the College of Engineering of the University of Washington in a program of engineering education based upon a broad foundation of liberal arts. The program consists of three years at Western Washington University followed by two years in the College of Engineering at the University of Washington. The nature of the program makes it difficult to pursue by students who do not begin at Western as freshmen. A minimum of 135 credits must be completed prior to leaving Western for the University of Washington, and at least 90 of these must be earned at Western.

While at Western, students may complete the pre-engineering courses listed below and take General University Requirements in communications, humanities, social sciences, non-Western and minority cultural studies, math and science for the Bachelor of Arts degree. Upon successful completion of the program the student will receive the Bachelor of Arts from Western and the Bachelor of Science in Engineering from the University of Washington. This two-degree program provides an excellent liberal arts, mathematics and science background prior to specialization in engineering. The combined program is competitive and designed specifically for students who have strong preparation in communication skills, mathematics and science. The curriculum does not guarantee admission to the College of Engineering at the University of Washington. Entrance to the University of Washington is competitive, so students must maintain a sufficient grade point average in order to gain admission to the University of Washington.

# INTERDISCIPLINARY STUDIES

## ***Introductory core courses***

All pre-engineering students, regardless of intended engineering field, should take:

- CHEM 121
- ENG 101
- MATH 124, 125, 204, 224, 331
- PHYS 161, 162, 163
- CSCI 140 or 141 (check with engineering program you intend to transfer to and take the CSCI course with the appropriate computer language)
- 15 credits of Humanities and Social Sciences (at least one course in each)

Students interested in mechanical, civil, aeronautical, industrial, or manufacturing engineering or materials science or engineering should also take CHEM 122 and ETEC 112, 224, 225, and 226.

Students interested in electrical or computer engineering may also take ETEC 271, 273, and 274, but students should be aware that these courses are unlikely to transfer.

Students interested in chemical or biomedical engineering should also take CHEM 122, 123, 351, 352 and check with the engineering program of interest to see if any biology is appropriate as well.

Check with the pre-engineering advisor for additional courses.

Students not prepared to take MATH 124 (Calculus) should enroll in a preparatory sequence, under advisement.

Program advisor: Dr. Jeffrey L. Newcomer, Department of Engineering Technology, ET 204, 360-650-7239, Jeff.Newcomer@wwu.edu.

# American Cultural Studies

## Introduction

American cultural studies allows students to concentrate on the Americanization process, American character, American cultural institutions and/or American cultural values, particularly as these shape our concepts and choices of vocation.

The program in American Cultural Studies is interdisciplinary and serves those students and faculty who are interested in the study of such questions but find that important aspects of cultural institutions, cultural artifacts and cultural values are not fully revealed by the course of study within a single department or college. The program allows students the opportunity to study issues especially arising from the cultural diversity in American society. Whenever possible, the program takes advantage of the rich curricular offerings of the various departments and colleges of the University.

Students who want a liberal arts education of breadth and depth will find that, because of its flexibility, the program adapts well to their needs. It offers suitable undergraduate background for advanced study in law, domestic social services, public service, government service or education, and for graduate work in American studies, ethnic studies and the social sciences. It also offers unique ways to combine the study of the humanities and social sciences.

For further information and advisement about the program contact the director of the program, Dr. Lawrence J. Estrada, Fairhaven College 330.

## Faculty

**LARRY J. ESTRADA**, Fairhaven College. Director, American Cultural Studies program. Race and ethnicity in America; Chicana-Hispano studies; urban multicultural education; U.S.-Mexican relations/Caribbean Studies.

**JEANNE ARMSTRONG**, Wilson Library. Research strategies, gender studies, postcolonial theory and comparative cultural and literary studies.

**JOANNE DEMARK**, Student Life. Leadership; social justice; queer studies.

**RAINE DOZIER** (2008) Assistant Professor. BA, State University of New York; MA, PhD, University of Washington.

**MARIE EATON**, Fairhaven College. Minorities and education, gay/lesbian/ bisexual/transgender studies.

**JOHN FEODOROV**, Fairhaven College. New genre art, Native American Art, Art and Society

**MARIA TIMMONS FLORES** (2008) Assistant Professor. MED, Western Washington University; PhD, University of Colorado Boulder.

**KRISTEN FRENCH**, Woodring College of Education. Educational pluralism.

**CHRIS FRIDAY**, History. Asian American and Native American studies; immigration, labor, Pacific Northwest and U.S. West studies.

**CAROL GUESS**, English. Fiction, creative nonfiction, poetry writing, queer studies.

**KAREN J. HOELSCHER** (1992) Professor. BS, Bemidji State University; MS, Mankato State University; EdD, Harvard University.

**STEVE HOFFMAN**, American Cultural Studies. American Judaism and Jewish religious practices.

**VERNON JOHNSON**, Political Science. Culture and politics of African societies; African American studies; the civil rights movement in America.

**ROSANNE KANHAI-BRUNTON**, English. Feminist literary theory; postcolonial literatures; African American literature; imaginative literature by women of color.

**KEVIN LEONARD**, History. History of Latino and African Americans in the United States.

**JAMES LOUCKY**, Anthropology. Immigration policy, Native American cultures, Latin and Latin American cultures, United States-Mexico border policy.

**BILL LYNE**, English. African American literature, cultural studies, cultural theory.

**MARY JANELL METZGER**, English. Critical Theory; women's literature; Shakespeare and his contemporaries and English studies methodologies.



# AMERICAN CULTURAL STUDIES

**KATE MILLER**, Women Studies. Women studies, comparative racial and ethnic studies, multiracial identity, GLBT studies.

**RAQUEL MONTOYA-LEWIS**, Fairhaven College. Law, federal and traditional/customary Indian law; theories of jurisprudence, social welfare systems and social work practice, lesbian/gay/bisexual/transgendered studies, identity (racial, cultural, gender) studies.

**DAVE OREIRO**, Northwest Indian College. American Indian experience; contemporary American Indian issues; American Indian higher education

**TARA PERRY**, Communication. Communication cultural/critical studies; students with disabilities in higher education; service learning; issues of diversity in teaching and learning.

**JOHN PURDY**, English. Native American literature; ethnic perspectives on literary theory.

**MARSHA RIDDLE-BULY**, Woodring College of Education. Literacy and historically marginalized students; English as a Second Language; bilingual education.

**LYSA RIVERA**, English. Chicano and Chicana Literatures and African American Literatures.

**DAN FIRST SCOUT ROWE**, Fairhaven College. American Indian studies, veterans studies.

**RAE LYNN SCHWARTZ-DUPRE**, Communication. Communication cultural/ critical studies; rhetorical theory and criticism; visual rhetoric; feminist postcolonial theory and criticism.

**TANIS S'EILTIN**, Fairhaven. Art and creativity; American Indian art forms; American Indian issues.

**MART STEWART**, History. African American history; cultural history of science and the environment.

**MIDORI TAKAGI**, Fairhaven. United States History; African American History; comparative racial and ethnic studies.

**NING YU**, English. Asian American literature; Asian mythology; 19th century American literature and science.

## Bachelor of Arts

### American Cultural Studies, BA

American Cultural Studies, Interdisciplinary Studies

#### 70 Credits

#### Introduction/What is the Study of American Cultural Studies?

American Cultural Studies allows students and faculty to address issues such as race/ethnicity, educational equity, social and cultural theory, socio-economic class, as well as gender and sexual orientation while analyzing the formation of identities in societies. The program in American Cultural Studies concentrates on the Americanization process, American character, American cultural institutions and/or cultural values, particularly as these shape our concepts and society. ACS serves those students and faculty who are interested in the study of such questions, but find that important aspects of cultural theory, artifacts and values are not fully revealed by the course of study within a single department or college. The program allows students the opportunity to study issues arising specifically from the cultural diversity in American society. Whenever possible, the program takes advantages of the rich curricular offerings of the various departments and colleges within the university.

#### Why Consider an American Cultural Studies Major?

Students who want a liberal arts education of breadth and depth will find that, because of its flexibility, the program adapts well to their needs. The ACS major combines the social sciences with humanities to prepare students with a rich undergraduate background for advanced study in law, domestic social services, public service, government service, education, and graduate work in American studies, ethnic studies and the social sciences.

### Contact Information

#### Program Director

Dr. Larry J. Estrada  
 Fairhaven 330  
 360-650-3016  
 Larry.Estrada@wwu.edu

### Sample Careers

Attorney | Public Administration | Higher Education | Social Worker | Marketing Specialist | Firefighter | Teaching English as a Second Language | Consumer Advisor | Community Relations Director | Human Resource Coordinator | Police Officer | Non-Profit Agency Administrator | Public School Teacher

### Major/Career Resources

[http://www.wwu.edu/careers/students\\_choosingamajor.shtml](http://www.wwu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

A formal program of study is initially designed by the student in consultation with a member of the American Cultural Studies faculty. The program is then approved by the Director of American Cultural Studies. No program of study may substantially duplicate an existing departmental or college program. Ordinarily, final approval of the course of study must be granted before senior status is reached.

The student may propose a broad, general program in American Cultural Studies, social science or education concentrations, or focus on one major aspect, for example: ethnic studies, sexuality, myth and folklore or Pacific Northwest studies. In any case, the proposed program must include substantial upper-division work in at least two curricular units of the University. These may include Fairhaven or Huxley colleges.

The faculty recommends that students use a minor to develop special career interests or foci (see, for example, the Asian American Studies minor), or to develop additional depth in one of the traditional academic disciplines or programs of the University.

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

#### Core Courses: 39-44 credits

##### One course from:

- AMST 301 - Comparative Cultural Studies
- FAIR 366E - Comparative Cultural Studies

##### One course from:

- AMST 499 - Research and Writing
- LIBR 499 - Special Problems

##### Choose a total of three courses from the following options:

- AMST 206 - The Jewish-American Experience
- AMST 242 - The Lesbian, Gay, Bisexual, Transgendered Experience

##### One course from:

- AMST 202 - The American Indian Experience
- FAIR 263B - The American Indian Experience

##### One course from:

- AMST 203 - The Hispano/a-American Experience
- FAIR 218C - The Hispano/A-American Experience

##### One course from:

## AMERICAN CULTURAL STUDIES

- AMST 204 - The African-American Experience
  - FAIR 219D - The African-American Experience
- One course from:
- AMST 205 - The Asian-American Experience
  - FAIR 215F - The Asian-American Experience
- Two courses from the social sciences, selected under advisement from:
- AMST 314 - Contemporary Latino/A Issues
  - AMST 316 - Contemporary African American Issues
  - ENVS 204 - Human Geography
  - FAIR 212E - Coast to Coast on a Piece of Toast: Hoboism and the Great Depression
  - FAIR 374B - The Cultural Creation of Identity
  - PLSC 101 - Government and Politics in the Modern World
  - PLSC 250 - The American Political System
  - PLSC 347 - Race, Politics and Public Policy
  - PLSC 421 - Lesbian, Gay, Bisexual, Transgendered Politics
  - SOC 221 - Introduction to Population Issues
  - SOC 255 - Social Organization of Criminal Justice
  - SOC 260 - The Family in Society
  - SOC 268 - Gender and Society
  - SOC 269 - Race and Ethnic Relations
- One course from:
- AMST 315 - Contemporary American Indian Issues
  - FAIR 399B - Contemporary American Indian Issues
- One course from:
- ANTH 104 - American Mosaic: The Cultures of the United States
  - ANTH 353 - Sex and Gender in Culture
- Select one course from:
- AMST 362 - Asian-American History
  - HIST 263 - African Americans Since 1865
  - HIST 265 - Lesbian, Gay, Bisexual, and Transgender Experiences in U.S. History
  - HIST 275 - The Indian in American History
  - HIST 353 - Latinas/os in the US West
  - HIST 362 - Asian-American History
  - HIST 365 - History of Sexuality in the United States
  - HIST 367 - US Women to 1865
  - HIST 368 - US Women from 1865
  - HIST 461 - US Urban History
  - HIST 467 - American Cultural History: 1790-1880
- Two courses from:
- ENG 216 - Introduction to American Literature
  - ENG 227 - Introduction to Gay, Lesbian, Bisexual and Transgender Literature
  - ENG 234 - Introduction to African-American Literature
  - ENG 235 - Introduction to American Indian Literatures
  - ENG 236 - Introduction to Asian-American Literatures
  - ENG 239 - Introduction to Latina/o Literatures
  - ENG 270 - Introduction to Language and Society
  - ENG 338 - Women and Literature in North America and Europe
- Select one course from:

- A/HI 360 - Nationalism and Cultural Identity, 19th and 20th Centuries
- DNC 232 - Movement and Culture
- FAIR 451X - Resistance Art of the Indigena
- MUS 202 - Jazz: Genesis and Evolution
- MUS 205 - Survey of Non-Western Musical Cultures

#### Other Requirements

Individualized Program of Study 26-31 credits (selected under advisement)

A formal program of study is initially designed by the student in consultation with a member of the American Cultural Studies faculty. The program is then approved by the Director of American Cultural Studies. No program of study may substantially duplicate an existing departmental or college program. Ordinarily, final approval of the course of study must be granted before senior status is reached.

The student may propose a broad, general program in American Cultural Studies, social science or education concentrations, or focus on one major aspect, for example: ethnic studies, sexuality, myth and folklore or Pacific Northwest studies. In any case, the proposed program must include substantial upper-division work in at least two curricular units of the University. These may include Fairhaven or Huxley colleges.

The faculty recommends that students use a minor to develop special career interests or foci (see, for example, the Asian American Studies minor), or to develop additional depth in one of the traditional academic disciplines or programs of the University.

## Minor

### African American Studies Minor

Department of American Cultural Studies, Interdisciplinary Studies

#### 21-28 credits

#### Introduction/What is the Study of African American Studies?

The program in African American studies provides students with an interdisciplinary approach to the history, culture, and politics of peoples of African descent. In addition, this program offers a closer examination of Black leaders, activists, feminists, writers, artists, and scholars and their contributions to the development of the United States.

Courses range from in-depth studies on specific African American topics to classes on comparative political and cultural issues that give context to the Black experience in America. This minor program can be combined with many major designations.

For more information, contact Dr. Bill Lyne, coordinator of the African American Studies minor concentration or Dr. Lawrence J. Estrada, Director of American Cultural Studies.

#### Why Consider an African American Studies Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

# AMERICAN CULTURAL STUDIES

## How to Declare (Admission and Declaration Process):

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

#### **Core Courses:** 11 credits

##### One course from:

- AMST 301 - Comparative Cultural Studies
- FAIR 366E - Comparative Cultural Studies

##### One course from:

- AMST 204 - The African-American Experience
- FAIR 219D - The African-American Experience
- AMST 316 - Contemporary African American Issues

**Elective courses:** Choose from the following lists any number of courses totaling 10 or more credits; as some of these courses do not focus entirely or prominently on African American culture and issues, students must consult with the minor coordinator to receive approval **and** devote their major paper or quarter project to an aspect of African American studies within the discipline of the course. Under advisement of the African American studies minor coordinator, students can choose a course or frame an ISP course that is not contained within the electives listing.

##### Preferred Electives:

- ENG 234 - Introduction to African-American Literature
- HIST 263 - African Americans Since 1865
- PLSC 347 - Race, Politics and Public Policy

##### Additional Elective Options:

- ENG 310 - Literature and Culture IV: 19th and 20th Centuries \*under advisement only
- ENG 311 - Literature and Culture V: 20th and 21st Centuries \*under advisement only
- ENG 312 - Film and Culture \*under advisement only
- ENG 335 - Literary and Creative Expressions Across Asia, Africa, the Middle East, and Latin America \*under advisement only \*under advisement only
- FAIR 213D - Slave Narratives and Other Testimonies of the Old South
- FAIR 216B - Testimonies of the New South
- FAIR 261E - Race In/To the Movies I: Race Relations on Film 1900-1950
- FAIR 361E - Race In/To the Movies II: Race Relations on Film: 1950-1980
- HIST 286 - African History, 1800-present
- LBRL 276 - Humanities of Africa
- MUS 202 - Jazz: Genesis and Evolution
- SOC 269 - Race and Ethnic Relations
- SOC 369 - Sociology of Race and Ethnicity

## American Cultural Studies Minor

Department of American Cultural Studies, Interdisciplinary Studies

### 25 Credits

## Introduction/What is the Study of American Cultural Studies?

## Why Consider an American Cultural Studies Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

## How to Declare (Admission and Declaration Process):

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

#### **Core Courses:** 21-22 credits

Choose three courses from the following options:

- AMST 206 - The Jewish-American Experience
- AMST 242 - The Lesbian, Gay, Bisexual, Transgendered Experience

One of the following:

- AMST 202 - The American Indian Experience
- AIR 263B - The American Indian Experience

One of the following:

- AMST 203 - The Hispano/a-American Experience
- FAIR 218C - The Hispano/A-American Experience

One of the following:

- AMST 204 - The African-American Experience
- FAIR 219D - The African-American Experience

One of the following:

- AMST 205 - The Asian-American Experience
- FAIR 215F - The Asian-American Experience

One course from:

- AMST 301 - Comparative Cultural Studies
- FAIR 366E - Comparative Cultural Studies

One course from:

- ENG 227 - Introduction to Gay, Lesbian, Bisexual and Transgender Literature
- ENG 234 - Introduction to African-American Literature
- ENG 235 - Introduction to American Indian Literatures
- ENG 236 - Introduction to Asian-American Literatures
- ENG 239 - Introduction to Latina/o Literatures
- AMST 362 - Asian-American History
- HIST 263 - African Americans Since 1865

## AMERICAN CULTURAL STUDIES

- HIST 265 - Lesbian, Gay, Bisexual, and Transgender Experiences in U.S. History
- HIST 275 - The Indian in American History
- HIST 353 - Latinas/os in the US West
- HIST 362 - Asian-American History
- HIST 461 - US Urban History
- HIST 467 - American Cultural History: 1790-1880

**Related Courses:** 3-4 credits

For more information, contact Dr. Lawrence J. Estrada, Director of American Cultural Studies.

### American Indian Studies Minor

American Cultural Studies, Interdisciplinary Studies

#### 25 credits

#### Introduction/What is the Study of American Indian Studies?

The minor in American Indian studies is designed to provide students with in-depth study of the cultures and traditions, histories, and arts of indigenous peoples of the Western Hemisphere. The minor is recommended for students who plan to collaborate with American Indians in research, educational, environmental, creative, and political projects. The concentration is interdisciplinary and allows students to combine it with many major designations.

For more information, contact Tanis S'eiltin, coordinator of the American Indian Studies minor concentration, or Dr. Lawrence J. Estrada, director of the American Cultural Studies program.

#### Why Consider an American Indian Studies Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

**Core Courses:** 15 credits

One course from:

- AMST 202 - The American Indian Experience
- FAIR 263B - The American Indian Experience

One course from:

- AMST 301 - Comparative Cultural Studies
- FAIR 366E - Comparative Cultural Studies

One course from:

- AMST 315 - Contemporary American Indian Issues
- FAIR 399B - Contemporary American Indian Issues
- Any one of the following courses:
  - ANTH 361 - Native Peoples of North America
  - ENG 235 - Introduction to American Indian Literatures
  - FAIR 451X - Resistance Art of the Indigena
  - HIST 275 - The Indian in American History
- Elective Courses:** 10 credits
  - Any related courses under advisement or additional courses from the list above.

## Asian American Studies Minor

Department of American Cultural Studies, Interdisciplinary Studies

### 27 credits

#### Introduction/What is the Study of Asian American Studies?

The program in Asian American Studies provides for a coherent, integrated and concentrated investigation of peoples of Asian heritage in North America. It also examines separate experiences of Asian Americans and their positions as ethnic minorities in American society and politics. This is accomplished through concentration on Asian American history and its place in North America, situating the literatures and other cultural publications of Asian Americans in a broad context, and engaging contemporary issues with appropriate analytical tools.

For more information contact Dr. Midori Takagi, coordinator of the Asian American Studies minor concentration, or Dr. Lawrence J. Estrada, Director of American Cultural Studies.

#### Why Consider an Asian American Studies Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

- Core Courses:** 17 credits
  - One course from:
    - AMST 301 - Comparative Cultural Studies
    - FAIR 366E - Comparative Cultural Studies
  - One course from:
    - AMST 205 - The Asian-American Experience



## AMERICAN CULTURAL STUDIES

- FAIR 215F - The Asian-American Experience
- One course from:
  - AMST 362 - Asian-American History
  - HIST 362 - Asian-American History
  - □ ENG 236 - Introduction to Asian-American Literatures

### **Elective Courses:** 10 credits

Three courses from the two categories listed below:

- Contextualizing Asian America
  - ENG 335 - Literary and Creative Expressions Across Asia, Africa, the Middle East, and Latin America \*under advisement only
  - ENG 406 - Topics in Critical and Cultural Theory
  - ENG 408 - Cultural Studies
  - HIST 461 - US Urban History
  - SOC 369 - Sociology of Race and Ethnicity
  - ENG 310 - Literature and Culture IV: 19th and 20th Centuries \*under advisement only
  - ENG 311 - Literature and Culture V: 20th and 21st Centuries \*under advisement only
  - ENG 312 - Film and Culture \*under advisement only
  - FAIR 362F - We're Not for Sale: History of Asian Women in America
  - FAIR 363B - Suzie Wong to Miss Saigon: Asian Presence in Hollywood
- Other courses under advisement may include, but are not limited to, an ISP of 2 to 5 credits (specially arranged independent learning); internship of 2 to 5 credits (encouraged within the major but may be arranged through the minor); language classes up to 5 credits in the second year or higher of a college- or university-level Asian language; East Asian courses (2 to 5 credits) on approval of the Asian American Studies coordinator. For Independent Study Projects (ISP) and internship guidelines, contact Dr. Midori Takagi.

## **Diversity in Higher Education Minor**

American Cultural Studies, Interdisciplinary Studies

### **25 credits**

#### **Introduction/What is the Study of Diversity in Higher Education?**

This interdisciplinary minor will develop multicultural knowledge and competencies that contribute to the development of culturally effective administrators/ practitioners who are open to self-examination, are flexible and knowledgeable about diversity, and are constantly seeking to promote cross-cultural and global understanding. The minor offers an undergraduate background for advanced study in higher education, student affairs administration, as well as graduate studies in public service/public sector areas.

For more information, contact Dr. Marie Eaton, coordinator of the Diversity in Higher Education minor, or Dr. Lawrence Estrada, Director of American Cultural Studies.

#### **Why Consider a Diversity in Higher Education Minor?**

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

**How to Declare (Admission and Declaration Process):****Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

## Requirements

**Core Courses:** 16 credits

One course from:

- AMST 301 - Comparative Cultural Studies
- FAIR 366E - Comparative Cultural Studies
- AMST 400: Independent Study and/or Internship in Higher Education/Student Affairs
- COMM 322 - Civil Discourse as Learning Interaction
- SAA 375 - Diversity in Higher Education and Student Affairs

**Elective Courses:** 9 or more credits

Students must select *at least two* courses from Theoretical Foundations of Diversity in Higher Education and at least one course from Conceptual Frameworks for Diversity in Higher Education and at least one course from Conceptual Frameworks for Diversity in Higher Education.

Theoretical Foundations of Diversity in Higher Education

Select at least 2 courses from:

One course from:

- AMST 202 - The American Indian Experience
- FAIR 263B - The American Indian Experience

One course from:

- AMST 203 - The Hispano/a-American Experience
- FAIR 218C - The Hispano/A-American Experience

One course from:

- AMST 204 - The African-American Experience
- FAIR 219D - The African-American Experience

One course from:

- AMST 205 - The Asian-American Experience
- FAIR 215F - The Asian-American Experience
- AMST 206 - The Jewish-American Experience
- AMST 242 - The Lesbian, Gay, Bisexual, Transgendered Experience

One course from:

- AMST 315 - Contemporary American Indian Issues
- FAIR 399B - Contemporary American Indian Issues
- AMST 316 - Contemporary African American Issues
- FAIR 313E - Queer Issues in Education
- WMNS 211 - Introduction to Women Studies

Conceptual Frameworks for Diversity in Higher Education

Select at least one course from:

- ANTH 484 - Intercultural Education
- COMM 225 - Communication, Diversity and Controversy
- COMM 325 - Intercultural Communication
- HIST 461 - US Urban History
- HSP 443 - Disability: Individuals and Systems

## AMERICAN CULTURAL STUDIES

- HSP 455 - Diversity & Social Justice Dynamics
- INTL 325 - Global Literature
- SAA 420 - Foundations of Student Leadership: Theory and Practice
- SOC 269 - Race and Ethnic Relations
- WMNS 314 - Global Women

### **Education and Social Justice Minor (see Secondary Education department)**

Education and Social Justice Minor (see Secondary Education department)

### **Queer Studies Minor**

Department of American Cultural Studies, College of Humanities and Social Sciences

#### **26 credits**

#### **Introduction/What is the Study of Queer Studies?**

The program in Queer studies is an interdisciplinary program designed to educate students about diversity within the LGBTQ community in the United States, and to explore the LGBTQ contributions to shaping U.S. history, culture literature, and politics.

For more information, contact Professor Carol Guess, coordinator of the Queer Studies minor, or Dr. Lawrence J. Estrada, director of the American Cultural Studies.

#### **Why Consider a Queer Studies Minor?**

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### **How to Declare (Admission and Declaration Process):**

#### **Grade Requirements**

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

##### **Core Courses:** 17 credits

One course from:

- AMST 301 - Comparative Cultural Studies
- FAIR 366E - Comparative Cultural Studies
- AMST 242 - The Lesbian, Gay, Bisexual, Transgendered Experience
- ENG 227 - Introduction to Gay, Lesbian, Bisexual and Transgender Literature
- HIST 265 - Lesbian, Gay, Bisexual, and Transgender Experiences in U.S. History

**Related Courses:** 9 credits

- ANTH 353 - Sex and Gender in Culture
- FAIR 313E - Queer Issues in Education

- HIST 365 - History of Sexuality in the United States
- PLSC 421 - Lesbian, Gay, Bisexual, Transgendered Politics
- THTR 428 - Major Dramatists
- Other courses under advisement may include, but are not limited to, an ISP of 2 to 5 credits (specially arranged independent learning), and/or an internship of 2 to 5 credits.

## Raza Latina Studies Minor

American Cultural Studies, Interdisciplinary Studies

### 23-27 credits

#### Introduction/What is the Study of Raza Latina Studies?

The program for Raza Latina Studies is designed to educate students about Chicano/Latino cultures and community. It will provide in-depth study of the history, culture, traditions, politics and experiences. This program is recommended for students interested in working with/learning about the Chicano/Latino community. The minor requires 23-27 credits, of which 16 will be required and the remainder, elective. It is recommended that the electives come from the social science, history, literature and language offerings below, though other courses may be chosen under advisement of the Raza Latina Studies minor coordinator. Students also have the option of framing an Independent Study Project with the approval of the minor coordinator.

For more information, contact Dr. Lysa Rivera, coordinator of the Raza Latina Studies minor, or Dr. Lawrence Estrada, Director of American Cultural Studies

#### Why Consider a Raza Latina Studies Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

#### How to Declare (Admission and Declaration Process):

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

#### Requirements

##### Core Courses: 16 credits

- One course from:
  - AMST 203 - The Hispano/a-American Experience
  - FAIR 218C - The Hispano/A-American Experience
- One course from:
  - AMST 301 - Comparative Cultural Studies
  - FAIR 366E - Comparative Cultural Studies
  - □ AMST 314 - Contemporary Latino/A Issues

## AMERICAN CULTURAL STUDIES

- ENG 239 - Introduction to Latina/o Literatures

**Elective Courses:** 7 or more credits

Students must select at least one course from the Social Sciences and History options and at least one course from the literature and Language offerings.

Social Sciences and History:

- ANTH 201 - Introduction to Cultural Anthropology
- ANTH 365 - Peoples of Latin America
- ANTH 465 - Peoples of Mexico and Central America
- ANTH 475 - Global Migration
- ANTH 476 - Borderlands
- FAIR 364C - El Movimiento Chicano
- FAIR 372F - Race and Society Within the Latino Caribbean
- HIST 273 - Latin America: 1492-1824
- HIST 274 - Latin America: 1824 to the Present
- HIST 353 - Latinas/os in the US West
- HIST 474 - U.S. Latin American Relations
- PLSC 271 - Introduction to International Relations
- SOC 221 - Introduction to Population Issues
- SOC 269 - Race and Ethnic Relations

Literature and Language

- ENG 310 - Literature and Culture IV: 19th and 20th Centuries (under advisement)
- ENG 311 - Literature and Culture V: 20th and 21st Centuries (under advisement)
- ENG 312 - Film and Culture (under advisement)
- ENG 335 - Literary and Creative Expressions Across Asia, Africa, the Middle East, and Latin America
- SPAN 332 - Culture of Latin America
- SPAN 352 - Survey of the Literature of Latin America

## American Cultural Studies Courses

### **AMST 202 - The American Indian Experience**

The social and cultural evolution of the first peoples of the Americas. Focus on such aspects as education, self-determination, health issues and urbanization as they impact native indigenous populations. Also listed as FAIR 263B on an S/U grading basis.

Credits: 3

GUR Attributes: BCGM

### **AMST 203 - The Hispano/a-American Experience**

The development of the Hispano/a-American community, with emphasis on its history, its social and political institutions, and the effects of education, continuing immigration and economic stratification. Also offered as FAIR 218C.

Credits: 3

GUR Attributes: BCGM

### **AMST 204 - The African-American Experience**

An overview of African-American history from an interdisciplinary perspective. Emphasis is on the struggle for social and political equality in a developing capitalist economy. The contemporary social, economic and political life of African Americans also will be examined. Also offered as FAIR 219D.

Credits: 3

GUR Attributes: BCGM

### **AMST 205 - The Asian-American Experience**

The history of Asians in the United States, the development of communities and the effects of the

encounter between Asian cultures and the developing American cultural context. Also offered as FAIR 215F.

Credits: 3  
GUR Attributes: BCGM

**AMST 206 - The Jewish-American Experience**

An overview of the Jewish experience in America, past and present Jewish American marginalization, encounters with anti-Semitism and impact on the national scene. Study of Jewish Americans as a secular community, a community of faith, and an American minority ethnic group.

Credits: 3  
GUR Attributes: BCGM

**AMST 242 - The Lesbian, Gay, Bisexual, Transgendered Experience**

The development of the lesbian, gay, bisexual transgendered community in the United States, with emphasis on identity formation, historical and sociological influences and the effects of encounters between gay cultures and the larger American cultural context.

Credits: 3  
GUR Attributes: BCGM

**AMST 301 - Comparative Cultural Studies**

The interaction of immigrant and indigenous cultures with the developing American cultural patterns. Emphasis upon models and concepts of interaction, especially related to African Americans, Native Americans, Asian Americans and Latinos. Also offered as FAIR 366E.

**Prerequisites & Notes:** Introductory-level course: HIST, SOC, ANTH or equivalent;  
Credits: 4  
GUR Attributes: BCGM

**AMST 314 - Contemporary Latino/A Issues**

The course will familiarize students with theoretical approaches, empirical research, and policy issues relating to the social and historical conditions of Latino/as. By examining the conditions of adaptation, and particularly the implications of exclusion or inclusion, the course critically assesses the close ties that Latino/as have with the

multiple dimensions of immigration and borders of many kinds.

**Prerequisites & Notes:** AMST 203 or FAIR 218C or AMST 301 or FAIR 366E.  
Credits: 4

**AMST 315 - Contemporary American Indian Issues**

A historical and cultural overview of issues in Indian/White relations. Emphasis on issues of sovereignty, land claims, water rights, treaty rights, education, women, economic development, religious freedom, and cultural appropriation. Also offered as FAIR 399B.

**Prerequisites & Notes:** AMST 202 or FAIR 263B or HIST 275.  
Credits: 4

**AMST 316 - Contemporary African American Issues**

This course is an interdisciplinary examination of contemporary African American issues from the 1970s to the present. The focus will be on the various social, political, and economic issues that affect the African American community including education, economic development, affirmative action, reparations, interracial relations, criminal justice, racial discrimination, and political empowerment among others.

**Prerequisites & Notes:** AMST 204 or FAIR 219D or AMST 301 or FAIR 366E.  
Credits: 4

**AMST 362 - Asian-American History**

Contributions Asian Americans have made to the development of the United States, with emphasis on immigration, adaptation, settlement and their struggle for justice and equality. Also taught as HIST 362.

**Prerequisites & Notes:** Junior standing.  
Credits: 5  
GUR Attributes: BCGM

**AMST 412 - Seminar in Educational Equity**

This course has been designed to develop a critical understanding of current issues of educational equity and social justice within the U.S. context.

## AMERICAN CULTURAL STUDIES

Through research based discussions and participation in symposia, workshops, seminars, and film viewings students will engage and grapple with their own development of critical consciousness and the implications for educators. Also offered as EDUC 412.

senior status or instructor approval.  
Credits: 4

**Prerequisites & Notes:** Junior standing or permission of instructor. Preference to students in the Education and Social Justice Minor.  
Credits: 4  
Grade Mode: S/U

### **AMST 413 - Bridging Barriers with Migrant Youth**

Course explores the barriers migrant students face in graduating from high school and going on to higher education. Course combines theoretical study with a service learning experience focused on supporting migrant youth to overcome the educational challenges they face. All students will take leadership roles in planning, implementing, and evaluating the effectiveness of the Migrant Youth Leadership Conference and outreach efforts with Migrant partner programs. Repeatable up to a maximum of 8 credits, including original course. Also offered as EDUC 413.

**Prerequisites & Notes:** Admission to Minor in Education for Social Justice, or permission of instructor.  
Credits: 4  
Grade Mode: S/U

### **AMST 464 - Multicultural Ed for Teachers**

Preparation for teaching in a multicultural society. Participants will learn how to design a curriculum that reflects diversity and an instructional methodology that promotes the learning of diverse students. Also offered as ELED 464.

Credits: 4

### **AMST 499 - Research and Writing**

Designed to introduce students to primary and secondary sources associated with American cultural studies. Assignments include one major research/writing project and several smaller ones. Also taught as LIBR 499.

**Prerequisites & Notes:** AMST 301 or FAIR 366E;

# Honors

## Honors Program

Honors Department, Interdisciplinary Studies

### Introduction/What is the Study of Honors?

Western's Honors Program allows students to combine the best of a private liberal arts college experience (small classes, interaction with professors and other students, and the opportunity to work on research and creative activities with faculty) with the advantages of a much larger public institution, including a wide variety of majors, outstanding academic facilities, and numerous extra-curricular options. Admission is selective, and students are invited to join the program on the bases of high school record, scores on standardized tests, a writing sample, and letters of evaluation. Transfer students or students already enrolled in the university may enter the program on the bases of academic record, a writing sample, and the recommendation of a university or other faculty member.

The program is structured in a way that provides a graduated, on-going experience for students as they engage in increasingly sophisticated work while moving through Honors. Most students join the program upon entry into Western, but there are opportunities for already enrolled and transfer students to participate. Students in the Honors Program are eligible for Honors courses and seminars, and have the opportunity to undertake extended Honors independent study projects in their major fields.

Students interested in the Honors program should get in touch with the Honors Office, College Hall 07, 360-650-3034, or visit the Honors website, <http://www.wvu.edu/honors>, for more information.

### Why Consider an Honors Program Major?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

### How to Declare (Admission and Declaration Process):

#### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

Requirements for Graduation through the Honors Program

Classes in the first and second year apply to the student's General University Requirements. Classes may be applied to the GUR area indicated for each class.

#### First-Year Honors:

- HNRS 103 - Major Cultural Traditions I (Humanities)
- HNRS 104 - Major Cultural Traditions II (Humanities)
- HNRS 105 - Major Cultural Traditions III (ACGM)
- or
- HNRS 106 - Major Cultural Traditions IV (BCGM)

Freshmen with science and mathematics are encouraged to consider enrollment in one or more of the following Honors Classes:



## HONORS

- MATH 134 - Calculus I Honors
- MATH 135 - Calculus II Honors
- MATH 138 - Accelerated Calculus
- CHEM 125 - General Chemistry I, Honors
- CHEM 126 - General Chemistry II, Honors
- CHEM 225 - General Chemistry III, Honors

### **Second-Year Honors:**

□ Two Honors Colloquia. Classes are at the 200-level, and a variety is offered each year in areas such as psychology, philosophy, physics (intended for non-science majors), anthropology, economics. One colloquium is waived for students with credit in one or more of the following courses: MATH 134, MATH 135, MATH 138; CHEM 125, CHEM 126, CHEM 225.

### **Third-Year Honors:**

□ A minimum of two Honors seminars. Seminars are offered in a broad array of fields each year, and offerings change from year to year. Classes are numbered 350 and above.

In some cases, students may apply HNRS seminars to their majors or their GURs, with permission of the Honors Program director or the Honors advising staff, and the department concerned.

### **Fourth-Year Honors:**

□ Senior Project, which is concentrated work in the student's major field, though in exceptional cases work may be done in an allied area. It is not unusual for a student to be engaged in Senior Project work before the final year, and this is the experience of many students in the natural sciences.

Students may take HNRS 490, Senior Project, as well as classes in their major department to meet this requirement.

Requirements for already enrolled Western students and transfer students:

- Four Honors seminars
- A senior project

Additional requirements for graduation through the Honors Program:

## Honors Courses

### **HNRS 103 - Major Cultural Traditions I**

Analysis, interpretation, and discussion of a wide range of texts from ancient times to the 5th century, with emphasis on the Western traditions.

Credits: 4

GUR Attributes: HUM

### **HNRS 104 - Major Cultural Traditions II**

Analysis, interpretation, and discussion of a wide range of texts from the 6th to the close of the 19th century, with emphasis on the Western traditions.

Credits: 4

GUR Attributes: HUM

### **HNRS 105 - Major Cultural Traditions III**

Analysis, interpretation, and discussion of a wide range of sources from the contemporary world with major emphasis on a culture outside North America.

Credits: 4

GUR Attributes: ACGM

### **HNRS 106 - Major Cultural Traditions IV**

Analysis, interpretation, and discussion of a wide range of sources from the contemporary world with a major emphasis on a North American culture.

Credits: 4

GUR Attributes: BCGM

### **HNRS 201 - Colloquium in Philosophy**

An introduction to philosophical methods and to the branches of philosophical inquiry. The class will concentrate on a specific subject or topic in each colloquium, and the area of emphasis will therefore vary from year to year.

Credits: 4  
GUR Attributes: HUM

### **HNRS 202 - Colloquium in Economics**

An introduction to the principles of micro- and macroeconomics, including the role of the market in allocating scarce resources, the decision making of economic agents, market and regulatory failures, macroeconomic performance, competing theories of the macro economy, the creation of money, and international trade and finance. Students will have the opportunity for extensive discussion and to explore one or more areas of the discipline.

**Prerequisites & Notes:** MATH 112 or higher or equivalent.  
Credits: 4  
GUR Attributes: SSC

### **HNRS 203 - Colloquium in Anthropology**

Introduction to the concepts, methods and practical application of cultural anthropology. The focus is on explanations for social and cultural variation around the world and over time and the significance of holistic and comparative understanding. Class will concentrate on discussion and also will provide students with an opportunity to explore one or more areas of the discipline in some depth.

Credits: 4  
GUR Attributes: SSC

### **HNRS 204 - Colloquium in Psychology**

An introduction to the basic concepts and methods of the discipline of psychology utilizing the results of research investigations. Students will have an opportunity to perform independent work.

Credits: 4  
GUR Attributes: SSC

### **HNRS 205 - Colloquium in History**

The study of history as a discipline, including an introduction to primary sources, source criticism, basic techniques of historical research, and historical writing. Students will study a specific historical issue or event in some depth.

**Prerequisites & Notes:** Admission to Honors Program.  
Credits: 4  
GUR Attributes: HUM

### **HNRS 206 - Colloquium in Political Science**

An introduction of the concept of politics and the types of governments and political issues in the contemporary world, with an emphasis on the comparative study of political ideas and systems. The class will focus on discussion and students will have an opportunity to study one or more areas in depth.

Credits: 4  
GUR Attributes: SSC

### **HNRS 211 - Colloquium in Physics**

An introduction to the basic concepts and practice of physics, including the laws of motion, conservation of energy and momentum, gravitation, electricity and magnetism, sound and light waves, radioactivity, and fission and fusion. The class includes a lab, and students will have an opportunity to study an area of interest in depth.

**Prerequisites & Notes:** MATH 107 or equivalent or higher.  
Credits: 4  
GUR Attributes: LSCI

### **HNRS 212 - Colloquium in Geology**

Study of the earth including its origins, petrology, volcanology, orogeny, plate tectonics, and the evolution of continents as a result of surface and subsurface processes. The class includes a laboratory, and students will have the opportunity to study a particular area of geology in depth.

**Prerequisites & Notes:** MATH 107 or equivalent or higher.  
Credits: 4  
GUR Attributes: LSCI

### **HNRS 213 - Colloquium in Biology**

## HONORS

An introduction to the study of biology, including molecular and evolutionary processes, the energetics of living systems with emphasis on photosynthesis and respiration in relation to the first and second laws of thermodynamics, and the study of the physical structure of DNA and its involvement in the information flow in the cell. The class includes a laboratory, and students will have an opportunity to explore a specific, selected area of inquiry.

**Prerequisites & Notes:** MATH 106 or equivalent or higher.

Credits: 4

GUR Attributes: LSCI

### **HNRS 221 - Interdisciplinary Colloquium in Science and Social Science**

An examination of the relationship between science and technology and the social and cultural milieu in which they are actually done. Individual classes may center on a single science or deal with a number of case studies dealing with different sciences.

**Prerequisites & Notes:** Admission to the Honors Program.

Credits: 4

GUR Attributes: SSC

### **HNRS 252 - Colloquium in Sociology**

An introduction to the principles of sociology, including the study of social change, social institutions, and social organizations. The class will also provide an opportunity for concentrated study in one or more areas of the discipline.

Credits: 4

GUR Attributes: SSC

### **HNRS 350 - Seminar**

Repeatable with various topics.

Credits: 3

### **HNRS 351 - Seminar**

Repeatable with various topics.

Credits: 3

### **HNRS 352 - Seminar**

Repeatable with various topics.

Credits: 3

### **HNRS 353 - Seminar**

Repeatable with various topics.

Credits: 3

### **HNRS 354 - Seminar**

Repeatable with various topics.

Credits: 3

### **HNRS 355 - Seminar**

Repeatable with various topics.

Credits: 3

### **HNRS 356 - Seminar**

Repeatable with various topics.

Credits: 3

### **HNRS 357 - Seminar**

Repeatable with various topics.

Credits: 3

### **HNRS 358 - Seminar**

Repeatable with various topics.

Credits: 3

### **HNRS 359 - Seminar**

Repeatable with various topics.

Credits: 3

### **HNRS 490 - Senior Project**

Repeatable up to 8 credits, including original course. S/U grading.

Credits: 2-4

Grade Mode: S/U

# International Studies

## Introduction

International Studies is a multidisciplinary approach to learning about world issues. The International Studies curriculum focuses on comparative perspectives, histories, and approaches to global citizenship, inter-cultural knowledge, and universal respect.

## Department Mission

The Center for International Studies serves Washington State by providing internationally-focused educational experiences that prepare students to be global citizens and by supporting faculty and staff who are engaged inter-culturally.

## Declaration Process

Advisement for the minor can be secured through the Executive Director for the Center for International Studies, Professor Vicki Hamblin, Miller Hall 215B, 360-650-4859.

## Additional Information

Additional information regarding international education opportunities at Western can be found at: [www.wvu.edu/international](http://www.wvu.edu/international).

# Minor

## International Studies Minor

International Studies Program, Interdisciplinary Studies

### 28 credits

### Introduction/What is the Study of International Studies?

The International Studies Minor provides a global perspective in a cross-disciplinary course of study. The Minor is designed to provide students with the knowledge, perspectives and skills that are critical for global competence and careers in today's increasingly interrelated world. The Minor consists of (1) completion of an approved international study program, exchange, or service-learning experience, (2) International Studies courses, (3) the study of a second language, and (4) course work in related fields. Students completing this minor will be well prepared for a variety of professional opportunities.

### Why Consider an International Studies Minor?

Contact Information

Sample Careers

Major/Career Resources

[http://www.wvu.edu/careers/students\\_choosingamajor.shtml](http://www.wvu.edu/careers/students_choosingamajor.shtml)

# INTERNATIONAL STUDIES

## How to Declare (Admission and Declaration Process):

### Grade Requirements

A grade of C- or better is required for a student's major or minor courses, and supporting courses for majors and minors.

### Requirements

- INTL 201 - Introduction to Global Studies
- INTL 401 - Global Issues
  - 4-8 credits from an approved study-abroad program, international exchange, or internationally-focused service learning or internship experience.
  - 4-5 credits in a modern language at 202 level or above; or, 4-5 credits at 103 level or above for less commonly taught languages.
  - Three upper-division elective courses in international studies from the following list or other courses with approval by the faculty advisors for International Studies; at least two courses to be completed on campus.
    - INTL 302 - Global Citizenship
    - INTL 312 - Globalizations since 1870
    - INTL 334 - International Law
    - INTL 325 - Global Literature
    - FAIR 312D - Issues in International Studies
    - FAIR 334B - Transitional Justice
    - FAIR 334C - International Human Rights
    - FAIR 334D - State Failure and State Collapse
    - FAIR 334E - State Collapse and State Reconstruction
    - FAIR 334F - International Law
    - FAIR 371E - Nations and Nationalism
    - FAIR 413A - International Childhood
- One course from:
  - INTL 361 - Introduction to International Economics and Business
  - ECON 361 - Introduction to International Economics and Business

## International Studies Courses

### INTL 105 - Education Abroad

Credit through international exchanges, academic programs offered through universities or consortia, cosponsored programs. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

### INTL 106 - Education Abroad: Direct Exchange 1

Credit through international exchanges. Direct Exchange 1 - Direct Exchange Two Semesters or Three Quarters. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

### INTL 107 - Education Abroad: Direct Exchange 2

Credit through international exchanges. Direct Exchange 2 - Direct Exchange Semester.

Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

**INTL 108 - Education Abroad: Direct Exchange 3**

Credit through international exchanges. Direct Exchange Plan 3 - Direct Exchange Asia University. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

**INTL 109 - Education Abroad: AHA**

Credits earned through academic programs offered by faculty teaching for AHA International or a similar consortium. Repeatable to a maximum of 30 credits, including original course. S/U grading.

Credits: 1-30  
Grade Mode: S/U

**INTL 115 - Global Internship/Field Study**

International internships, independent research projects, work experience approved by departments or colleges. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

**INTL 131 - Education Abroad: ISEP 2**

Credit for an international exchange through the International Student Exchange Program (ISEP), a consortia of universities. ISEP 2 - Two Semesters or Three quarters. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

**INTL 201 - Introduction to Global Studies**

Introduction to contemporary global issues, drawing on the integrated knowledge and

methodologies of multiple disciplines.

Credits: 5  
GUR Attributes: ACGM

**INTL 205 - Education Abroad**

Credit through international exchanges, academic programs offered through universities or consortia, cosponsored programs. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs and Exchanges  
Credits: 1-30  
Grade Mode: S/U

**INTL 206 - Education Abroad: Direct Exchange 1**

Credit through international exchanges. Direct Exchange 1 - Direct Exchange Two Semesters or Three Quarters. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

**INTL 207 - Education Abroad: Direct Exchange 2**

Credit through international exchanges. Direct Exchange 2 - Direct Exchange Semester. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

**INTL 208 - Education Abroad: Direct Exchange 3**

Credit through international exchanges. Direct Exchange 3 - Direct Exchange Asia University. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

**INTL 209 - Education Abroad: AHA**

Credits earned through academic programs offered by faculty teaching for AHA International or for a

## INTERNATIONAL STUDIES

similar consortium of universities. Repeatable to a maximum of 30 credits, including original course. S/U grading.

Credits: 1-30  
Grade Mode: S/U

### **INTL 215 - Global Internship/Field Study**

International internships, independent research projects, work experience approved by departments or colleges. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

### **INTL 231 - Education Abroad: ISEP 2**

Credit for an international exchange through the International Student Exchange Program (ISEP), a consortia of universities. ISEP 2 - Two Semesters or Three quarters. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges.  
Credits: 1-30  
Grade Mode: S/U

### **INTL 301 - Global Principles**

Pre-departure orientation, ethics and intercultural communication issues for study, service work or internships abroad. S/U grading.

Credits: 1  
Grade Mode: S/U

### **INTL 302 - Global Citizenship**

This class examines the ethical and practical questions raised by traveling, working, studying, reporting, and volunteering internationally. By exploring the social, cultural, historical, political, and economic contexts in which international engagement takes place, students will develop a critical lens with which to evaluate their own place in an increasingly interdependent world.

**Prerequisites & Notes:** INTL 201 or permission of instructor.  
Credits: 5

### **INTL 305 - Education Abroad**

Credit through international exchanges, academic programs offered through universities or consortia, cosponsored programs. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

### **INTL 306 - Education Abroad: Direct Exchange 1**

Credit through international exchanges. Direct Exchange 1 - Direct Exchange Two Semesters or Three Quarters. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

### **INTL 307 - Education Abroad: Direct Exchange 2**

Credit through international exchanges. Direct Exchange 2 - Direct Exchange Semester. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

### **INTL 308 - Education Abroad: Direct Exchange 3**

Credit through international exchanges. Direct Exchange 3 - Direct Exchange Asia University. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

### **INTL 309 - Education Abroad: AHA**

Credits earned through academic programs offered by faculty teaching for AHA International or for a similar consortium of universities. Repeatable to a maximum of 30 credits, including original course. S/U grading.

Credits: 1-30  
Grade Mode: S/U

**INTL 312 - Globalizations since 1870**

Overview of the global political economy and the expansions of the capitalist system from the late nineteenth century to the early twenty-first, from the era of globalization before World War I to our current era of globalization since 1973, via Two World Wars, the Great Depression, decolonization, and the Cold War. Examines facets of the history, politics, economics, sociology, and culture of globalization, the increased mobility of goods, people, capital, and ideas around the world. Also offered as FAIR 312F.

**Prerequisites & Notes:** INTL 201; ECON 206 recommended.  
Credits: 5  
GUR Attributes: SSC

**INTL 315 - Global Internship/Field Study**

International internships, independent research projects, work experience approved by departments or colleges. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

**INTL 325 - Global Literature**

Explores themes in global relations through critical reading, thinking and writing about literature from various parts of the world.

**Prerequisites & Notes:** ENG 101 or equivalent.  
Credits: 4  
GUR Attributes: ACGM

**INTL 330 - Education Abroad: ISEP 1**

Credit for an international exchange through the International Student Exchange Program (ISEP), a consortia of universities. ISEP 1 - Fall Quarter Only. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

**INTL 331 - Education Abroad: ISEP 2**

Credit for an international exchange through the International Student Exchange Program (ISEP), a

consortia of universities. ISEP 2 - Two Semesters or Three Quarters. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

**INTL 332 - Education Abroad: ISEP 3**

Credit for an international exchange through the International Student Exchange Program (ISEP), a consortia of universities. ISEP 3 - Winter/Spring Quarter Only. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

**INTL 334 - International Law**

This course is an introduction to public international law, which governs the relations of States and increasingly, other non-State actors, including individuals and organizations. The course will cover the basic doctrines of public international law and the international legal system. Topics to be covered include the law of treaties, international organizations, international courts and dispute settlement, international law and the use for force. Other topics include issues of self-determination, environmental protection, international human rights and international criminal law. These principles will be applied to contemporary issues of international law as it continues to evolve. Also offered as FAIR 334F.

**Prerequisites & Notes:** FAIR 203A or INTL 201 or permission of instructor.  
Credits: 4-5

**INTL 361 - Introduction to International Economics and Business**

This course provides an overview of the world economy and of the role of businesses in international trade and investment. Students will learn about the causes of globalization and examine its consequences for individuals, nations and businesses. The focus of the course will be on examining the impact of international trade and business on economic well-being. Also offered as ECON 361.



# INTERNATIONAL STUDIES

**Prerequisites & Notes:** ECON 101 or ECON 206.  
Credits: 4

## **INTL 401 - Global Issues**

A capstone course in which globally-focused themes, issues, or actions are engaged from various approaches and perspectives. Students will develop an individual project through several stages of research and revisions then present the results publicly. Students will also participate in co-curricular activities and report on them to the class.

**Prerequisites & Notes:** INTL 201 and junior status.  
Credits: 5

## **INTL 405 - Education Abroad**

Credit through international exchanges, academic programs offered through universities or consortia, cosponsored programs. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

## **INTL 406 - Education Abroad: Direct Exchange 1**

Credit through international exchanges. Direct Exchange 1 - Direct Exchange Two Semesters or Three Quarters. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

## **INTL 407 - Education Abroad: Direct Exchange 2**

Credit through international exchanges. Direct Exchange 2 - Direct Exchange Semester. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

## **INTL 408 - Education Abroad: Direct Exchange 3**

Credit through international exchanges. Direct Exchange 3 - Direct Exchange Asia University. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

## **INTL 409 - Education Abroad: AHA**

Credits earned through academic programs offered by faculty teaching for AHA International or for a similar consortium. Repeatable to a maximum of 30 credits, including original course. S/U grading.

Credits: 1-30  
Grade Mode: S/U

## **INTL 415 - Global Internship/Field Study**

International internships, independent research projects, work experience approved by departments or colleges. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

## **INTL 430 - Education Abroad: ISEP 1**

Credit for an international exchange through the International Student Exchange Program (ISEP), a consortia of universities. ISEP 1 - Fall Quarter Only. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

## **INTL 431 - Education Abroad: ISEP 2**

Credit for an international exchange through the International Student Exchange Program (ISEP), a consortia of universities. ISEP 2 - Two Semesters or Three Quarters. Repeatable. S/U grading.

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

## **INTL 432 - Education Abroad: ISEP 3**

Credit for an international exchange through the International Student Exchange Program (ISEP), a consortia of universities. ISEP 3 - Winter/Spring Quarter Only. Repeatable. S/U grading.

approval by the Graduate School are required.  
Credits: 1-24  
Grade Mode: S/U

**Prerequisites & Notes:** Approval from International Programs & Exchanges  
Credits: 1-30  
Grade Mode: S/U

**INTL 505 - Education Abroad**

Credit through international exchanges, academic programs offered through universities or consortia, cosponsored programs. Repeatable to 24 credits, including original course. S/U grading.

**Prerequisites & Notes:** Graduate status and prior approval by the Graduate School are required.  
Credits: 1-24  
Grade Mode: S/U

**INTL 506 - Education Abroad: Direct 1**

Credit through international exchanges. Direct Exchange 1 - Direct Exchange Two Semesters or Three Quarters. Repeatable up to 24 credits, including original course. S/U grading.

**Prerequisites & Notes:** Graduate status and prior approval by the Graduate School are required.  
Credits: 1-24  
Grade Mode: S/U

**INTL 507 - Education Abroad: Direct 2**

Credit through international exchanges. Direct Exchange 2 - Direct Exchange Semester. Repeatable to 24 credits, including original course. S/U grading.

**Prerequisites & Notes:** Graduate status and prior approval by the Graduate School are required.  
Credits: 1-24  
Grade Mode: S/U

**INTL 515 - Global Internship/Field Study**

International internships, international independent study projects, international work experience approved by departments or colleges. Repeatable up to 24 credits, including original course. S/U grading.

**Prerequisites & Notes:** Graduate status and prior

# Leadership Studies

## Introduction

The Leadership Studies program engages students in the formal study of leadership as a phenomenon that students observe, reflect on, and participate in. Through Leadership Studies, students become familiar with the practice and consequences of leadership in a variety of cultural and historical contexts. Empirical research, reflective inquiry, critical thinking, and the analysis of leadership theory, research, and practice are integral to the Leadership Studies program. While Leadership Studies are based in the social sciences, curricular initiatives will include interdisciplinary contributions from the arts, humanities, sciences, and applied and professional studies.

## Program Objectives

Students in Leadership Studies will develop knowledge in the following areas of study:

- the definition of and impact of leadership
- the cultural and contextual forces that influence leadership processes and outcomes
- theories of leadership and their implications for leadership practice and development
- the relationship between leadership and power in social relations
- the connection between leadership style and team effectiveness
- the role of leadership in creating and managing change
- the ethical issues and consequences of leadership action
- the process of leadership development

For more information, contact the Karen W. Morse Institute for Leadership at (360) 650-2292 or visit Old Main 480.

## Faculty

**JOSEPH E. GARCIA** (1984) Bowman Distinguished Professor of Leadership Studies and Director of the Karen W. Morse Institute for Leadership. BA, State University College of New York at Cortland; MA, Western Washington University; PhD, University of Utah

## Leadership Studies Courses

### LDST 100 - Leading Responsibly

Introduction to and critical examination of select virtues and character strengths associated with leading responsibly. Topics studied in class will be applied in a service learning experience.

**Prerequisites & Notes:** Exclusively required of students admitted to WWU as a Western Leadership Scholarship recipient.

Credits: 2

GUR Attributes: FYE SSC

### LDST 101 - Introduction to Leadership Studies

An introduction to leadership theory, research and practice in small groups, organizational and societal contexts.

Credits: 5

GUR Attributes: SSC

### LDST 450 - Leadership and Pedagogy

Serve as undergraduate tutor for students taking introduction to leadership studies. Learn instructional methods, gain further mastery of leadership course content and personal leadership skills. Lead discussions, and provide feedback for students enrolled in introduction to leadership studies.

**Prerequisites & Notes:** Junior status, recommendation and instructor's written permission.

Credits: 5

# Seminar

## Seminar Courses and the FIG Program

The First-Year Interest Group (FIG) program offers entering students a chance to satisfy General University Requirements (GURs) at the same time that they participate in a learning community for freshmen only. FIG students co-enroll in two designated GUR classes and a small seminar (SMNR 101). FIG clusters are limited to first-year students and are available fall quarter only. While the GUR courses in a FIG cluster will usually be large, the attached SMNR 101 is limited to 25 students.

The FIG seminar provides first-year students with access to resources that can help with their transition to Western. The program emphasizes faculty-student and student-student interaction as well as deeper learning. The FIG seminar uses the context from the linked GUR lecture courses as a context for fostering critical thinking and building academic competencies.

For more information, contact the FIG Director, Steven VanderStaay, Old Main 480B, 360-650-3004, or via e-mail at [Steven.Vanderstaay@wwu.edu](mailto:Steven.Vanderstaay@wwu.edu).

## Seminar Courses

### **SMNR 101 - Perspectives on Learning**

Make connections with professors and peers and examine perspectives across different fields of study. Learn to find and evaluate information and collaborate with peers through discussions, projects, and presentations. Explore academic

goals, campus resources, and enhance skills for learning in college.

**Prerequisites & Notes:** first-year students only  
Credits: 2  
GUR Attributes: FIG

## Western Libraries

The library provides an array of credit and noncredit instruction to enable student mastery of critical information seeking skills within and across disciplinary frameworks and resource formats. Students' understanding and exploration of these skills and abilities can be measured through the Libraries Instruction Learning Outcomes and Western Washington University's General University Requirements competencies, which are applied to both credit and noncredit instruction. Noncredit instruction can encompass research assistance, consultation, dialogue, bibliographic instruction, online and in-person tutorials, orientation, and instruction materials. Credit instruction, which includes a variety of courses, teaches collaborative learning strategies, information-seeking skills, research and writing processes, critical analysis and evaluation of information, and encourages intellectual and practical learning as a way to promote lifelong learning.

### Library Faculty

**MARK GREENBERG** (2013) Dean of Libraries and Professor; BA, University of Toronto; MA, University of Western Ontario; PhD, University of Florida; MLS, University of South Florida.

**JEANNE ARMSTRONG** (1997) Professor. BA, University of Dayton; MLS, Dominican University; PhD, University of Arizona.

**RYER BANTA** (2012) Instruction Design Resident; BA Montana State University; MLIS, University of Washington.

**MARGARET FAST** (1997) Associate Professor. BA, Mills College; MA, University of British Columbia; MLS, State University of New York at Albany.

**J. GABRIEL GOSSETT** (2009) Extended Education Librarian and Instructor, BA, University Wisconsin-Milwaukee; MLS, University Wisconsin-Madison.

**ELIZABETH JOFFRION** (2012) Director of Heritage Resources and Assistant Professor; BA, Louisiana State University; MA, University of New Orleans; MLS, University of Maryland.

**ROBERT LOPRESTI** (1987) Associate Professor. BA, Juniata College; MLS, Rutgers, The State University.

**LEZA (ELIZABETH) MADSEN** (2002) Associate Professor. BA, Western Washington University; MLS, University of Hawaii; MA, Stanford University.

**REBECCA MARRALL** (2010) Diversity Resident Librarian and Instructor; BS, Portland State University; MLS, University of Hawaii.

**ANDREA PETERSON** (1999) Associate Professor. BA, University of Utah; MLS, Indiana University.

**PAUL PIPER** (1997) Professor. BS, MFA, University of Montana; MLIS, University of Hawaii.

**JEFF PURDUE** (1999) Associate Professor. BA, MA, University of Illinois at Chicago; MLIS, Dominican University.

**MARIAN A. RITTER** (1969) Associate Professor. BME, MLS, University of Portland.

**PETER A. SMITH** (1990) Associate Professor. BA, MA, MLS, Wayne State University.

**ELIZABETH STEPHAN** (2008) Assistant Professor. BA, NW Missouri State University; MLS, University of Wisconsin-Madison

**SYLVIA TAG** (1997) Associate Professor. BA, The Colorado College; MLIS, University of Iowa.

**BOB THOMAS** (2006) Associate Professor. BS, University of New York at Albany; MLIS, University of Washington.

### Library Courses

#### **LIBR 201 - Introduction to Research Strategies**

Introduction to the nature of research and the interpretation of information. Emphasizes information literacy, including: carrying out

inquiry, locating both print and online resources, analyzing and interpreting a variety of sources for authority and authenticity, and incorporating material from sources into writing.

**Prerequisites & Notes:** ENG 101 or equivalent.

Credits: 4

GUR Attributes: CCOM

### **LIBR 302 - Research Paper Tutorial**

This course is intended to be linked with upper-level writing intensive courses. The purpose of this course is to familiarize students with the methods of identifying the relevant body of knowledge in a discipline and the library research methods that will enable them to utilize this knowledge in successfully writing assigned research papers. Includes developing a research strategy and collecting resources for an annotated bibliography to accompany an assigned research paper in a linked 300-level course.

**Prerequisites & Notes:** concurrent enrollment in 300-level writing intensive course

Credits: 1-4

### **LIBR 302A - Research Paper Tutorial**

This course is intended to be linked with upper-level writing intensive courses. The purpose of this course is to familiarize students with the methods of identifying the relevant body of knowledge in a discipline and the library research methods that will enable them to utilize this knowledge in successfully writing assigned research papers. Includes developing a research strategy and collecting resources for an annotated bibliography to accompany an assigned research paper in a linked 300-level course.

**Prerequisites & Notes:** coreq: EAST 302, HIST 499

Credits: 1 to 4

Grade Mode: L

### **LIBR 320 - Topics in Information Studies**

Varying topics and information studies including emerging technologies and trends in scholarly research. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** LIBR 201

Credits: 1-3

### **LIBR 402 - Research Tutorial**

Examines library resources, research processes, and scholarly discourse for upper-division students in a particular discipline. An upper-division library course intended to support advanced research methodologies for students in a particular major. Not repeatable. Letter graded. Equivalent to LIBR 403. Cannot take both LIBR 402 and 403 for credit.

**Prerequisites & Notes:** Junior or senior status or permission of instructor.

Credits: 1-4

### **LIBR 403 - Research Tutorial**

Examines library resources, research processes, and scholarly discourse for upper-division students in a particular discipline. An upper-division library course intended to support advanced research methodologies for students in a particular major. Not repeatable. S/U grading. Equivalent to LIBR 402. Cannot take both LIBR 402 and 403 for credit.

**Prerequisites & Notes:** Junior or Senior status or permission of instructor.

Credits: 1-4

Grade Mode: S/U

### **LIBR 417 - Topics in Libr/Info Studies**

Examines library resources, research processes, and scholarly discourse for upper-division students in a particular discipline. An upper-division library course intended to support advanced research methodologies for students in a particular major. Not repeatable. S/U grading. Equivalent to LIBR 402. Cannot take both LIBR 402 and 403 for credit.

**Prerequisites & Notes:** LIBR 125 or 201 or 302 or instructor permission

Credits: 4

### **LIBR 499 - Special Problems**

Research designed to demonstrate the student's competence in working with the tools of the discipline. Also offered as AMST 499.

# WESTERN LIBRARIES

**Prerequisites & Notes:** AMST 301  
Credits: 4

# Extended Education

*Dr. Earl Gibbons*

*Vice Provost, Extended Education*

*College Hall 103, 360-650-3308*

[www.extendeded.wvu.edu](http://www.extendeded.wvu.edu)

## Extended Education

Extended Education (EE) connects learners of all ages to the Western Experience. EE collaborates with colleges, departments and the community, linking University resources with educational needs and opportunities both on and off campus.

EE supports and delivers Western programs to students and community members within and beyond the borders of the Bellingham campus. Bachelor's degree completion, graduate, and certificate/endorsement programs are available at various locations around Puget Sound and online. Individual distance learning courses are offered via online and independent learning for degree completion and professional development purposes. EE also facilitates the on-campus Summer Session.

EE reaches out to the public with academic camps and workshops for youth and noncredit enrichment courses for all ages. EE facilitates conferences for groups and organizations, both on and off campus. Training programs can be arranged for businesses and industry.

Most programs and courses offered through EE are self-sustaining (not funded by legislative appropriation). Tuition and fees are charged per credit at extension rates and are subject to change.

## Language & Culture

**Dr. Frederick O'Connor, Director**

360-650-3755

**Asia University America Program**

**Bill Pech, Director**

360-650-3922

[www.wvu.edu/auap](http://www.wvu.edu/auap)

WWU-Asia University America Program (AUAP) is an English language and cultural orientation program that has been developed cooperatively with Asia University (Tokyo, Japan), Central Washington University, and Eastern Washington University. During this five-month study-abroad program, students from Asia University attend AUAP courses at Western in English as a Second Language, American Cultural Studies, and Global Issues. AUAP students earn credit from Asia University and are not matriculated at Western.

Approximately 120 AUAP students come to Western each year, with sessions running from September to mid-February, and late February through late July.

AUAP offers a number of opportunities to the Western community:

- Language and cultural exchange opportunities to Western students and community residents through the Campus Friends, Community Friends, and Classroom Volunteer programs; these programs provide intercultural contacts both within and beyond the classroom.
- Informational programming about Japanese culture in various Western classes and residence-hall groups; in addition, AUAP staff facilitates exchanges with AUAP and regular Western classes.
- Interaction with Japanese students on a daily basis in their halls and dining rooms for Western students who share residence halls with AUAP students.
- Paid leadership positions for Western students, such as international peer advisors and curriculum assistants, that give valuable experience in an intercultural concept, provide opportunities to develop international friendships, and assist in financing their education.
- Cultural-exchange services to the community, including programming in Bellingham public schools which introduces local elementary school children to Japanese language and culture and, most importantly, to international friendship.



## EXTENDED EDUCATION

- Participation by Western faculty and students in research opportunities through AUAP; faculty and students from the communications, foreign languages, psychology, business, and anthropology departments have conducted studies based on linguistic or attitudinal surveys.

### **Intensive English Program**

**Dr. Frederick O'Connor, Director**

360-650-3755

[www.wvu.edu/iep/](http://www.wvu.edu/iep/)

The Intensive English Program (IEP) provides a variety of English language courses designed to prepare international students for academic study at American colleges and universities. IEP classes, which are mostly noncredit, focus on preparing students for these academic experiences, as well as helping them to adapt socially and culturally to living in the U.S. The program emphasizes creating opportunities for Western students and IEP students to interact, both in the classroom and through informal conversational situations. The IEP, in cooperation with the Office of Admissions, manages the conditional admissions process, in which international students, as admitted undergraduates, enroll in a combination of regular academic classes and advanced English-language classes. Conditional admission functions as a bridging process from ESL to university coursework and is designed to better prepare international students for study in degree programs. Other links to academic areas of the University include the following:

- IEP works with Western faculty to facilitate intercultural experiences for current Western students in communications, management, psychology, anthropology, education and foreign languages courses by arranging joint classes, projects and other interactions with IEP students.
- IEP is closely linked to the TESOL certificate program by providing practicum experience, tutoring experience and employment opportunities for TESOL students.
- IEP provides opportunities for Western faculty who have professional relationships in other countries to bring students, individually or in groups, to campus for language and content-area study or for eventual matriculation into Western.

### **Degree Programs**

**Lois Longwood, Director**

360-650-6854

[www.extendeded.wvu.edu](http://www.extendeded.wvu.edu)

The following academic programs are offered through the College of Business and Economics, College of Humanities and Social Sciences, the College of Sciences and Technology, Huxley College of the Environment, Woodring College of Education, and the Graduate School. For program information, contact the appropriate site listed below.

Many of these programs are self-sustaining and are contingent upon sufficient enrollment and available University resources. Upon startup, all course work for program completion will be offered at a designated site or through distance education.

#### **College of Business and Economics**

Business Administration, Managers and Professionals, MBA

Program Website: <http://cbe.wvu.edu/mba/future-mba/wmba.shtml>

#### **College of Humanities and Social Sciences**

Communication Sciences and Disorders Post-Baccalaureate Preparation Program

Program Website: <http://www.wvu.edu/csd/postbacprograms.shtml>

#### **College of Sciences and Technology**

Computer Information Systems and Security, BS

Program Website: forthcoming

Vehicle Design Post-Baccalaureate Certificate Program

Program Website: <http://www.wvu.edu/vri/vehicle-design-post-bac.shtml>

**Huxley College of the Environment**

Huxley on the Peninsulas (BA and BS Programs)

Program Website: <http://www.acadweb.wvu.edu/eesp/huxley/index.shtml>

Environmental Science Extension Major, BS

Program Website: <http://www.acadweb.wvu.edu/eesp/huxley/science.shtml>

Environmental Policy (Extension), BA

Program Website: <http://www.acadweb.wvu.edu/eesp/hucley/arts.shtml>

Multicultural Initiative in the Marine Sciences - MIMSUP (Undergraduate Program)

Program Website: <http://www.wvu.edu/mimsup/>

**Woodring College of Education**

Certificate of Achievement TESOL

Program Website: <http://www.wvu.edu/tesol>

Continuing and College Education, Thesis, MEd

Continuing and College Education, Non-Thesis, MEd

Program Website: <http://www.wvu.edu/cce>

Educational Administration, Thesis, MEd

Initial Administrator Certificate (Superintendent)

Professional Administrator Certificate (In Moratorium)

Residency Administrator Certificate (Principal)

Program Website: <http://www.wce.wvu.edu/Depts/EDAD/>

Human Services, BA

Program Website: <http://www.wce.wvu.edu/Depts/HS/>

Nursing (RN to BSN), BSN

Program Website: <http://www.wvu.edu/bsn>

Rehabilitation Counseling, Non-Thesis, MA

Program Website: <http://www.wce.wvu.edu/Depts/RC/>

Teacher Education Outreach Programs

Program Website: <http://www.wce.wvu.edu/Depts/TEOP>

- Bachelor of Arts in Education (BAE) with a residency teacher certificate and an elementary education endorsement.
- Bachelor of Arts in Education (BAE) with a residency teacher certificate and dual endorsements in special and elementary education.
- Post-Baccalaureate residency teacher certificate with elementary education endorsement.
- Western's outreach program also offers endorsements in Elementary Education and Special Education for teachers who already hold a Washington State Teaching Certificate.
- Masters in Teaching (MIT), secondary education.

**Degree Programs Site List**

- Bellingham (Main Campus): [http://www.acadweb.wvu.edu/eesp/template/ee\\_bellingham.shtml](http://www.acadweb.wvu.edu/eesp/template/ee_bellingham.shtml)
- Anacortes: [http://www.acadweb.wvu.edu/eesp/template/ee\\_anacortes.shtml](http://www.acadweb.wvu.edu/eesp/template/ee_anacortes.shtml)
- Bremerton and Poulsbo: [http://www.acadweb.wvu.edu/eesp/template/ee\\_bremerton.shtml](http://www.acadweb.wvu.edu/eesp/template/ee_bremerton.shtml)
- Everett: [http://www.acadweb.wvu.edu/eesp/template/ee\\_everett.shtml](http://www.acadweb.wvu.edu/eesp/template/ee_everett.shtml)
- Port Angeles: <http://www.acadweb.wvu.edu/eesp/template/ee.portangeles.shtml>
- Seattle: [http://www.acadweb.wvu.edu/eesp/template/ee\\_seattle.shtml](http://www.acadweb.wvu.edu/eesp/template/ee_seattle.shtml)

## EXTENDED EDUCATION

- Online: [http://www.acadweb.wvu.edu/eesp/template/ee\\_online.shtml](http://www.acadweb.wvu.edu/eesp/template/ee_online.shtml)

### **Online and Independent Learning**

Departments across campus in conjunction with Extended Education offer alternatives for completing university credit, including General University Requirements (GURs); upper-division writing proficiency requirement; electives; and courses required for WWU majors (degrees seeking students should verify requirements for degree/major with the academic department). Many of the courses offered through Extended Education are open to anyone - both Western students and the public may enroll.

**eLearning:** [www.wvu.edu/eLearn](http://www.wvu.edu/eLearn)

Andrew Blick, 360-650-2841, [eLearn@wvu.edu](mailto:eLearn@wvu.edu)

**Online Courses and Programs (Internet-based)** courses begin and end with Western's quarterly schedule. Students may access the course 24 hours, seven days a week and work at the pace designated by the instructor. Registration information for term-based online courses can be found on the eLearning website at: <http://www.acadweb.wvu.edu/eesp/elearn/takingonlinecourses.shtml>.

**Independent Learning:** [www.wvu.edu/ilearn](http://www.wvu.edu/ilearn)

Kris Lewis, 360-650-3650, [iLearn@wvu.edu](mailto:iLearn@wvu.edu)

**Web Enhanced Self-Paced Independent Learning Courses (correspondence)** courses enable students to start anytime and work from any location while following a course guide developed for the self-paced student. Students will have six months from the month of registration to complete their course, registration information can be found on the Independent Learning website at: [http://www.acadweb.wvu.edu/eesp/ilearn/cost\\_registration.asp](http://www.acadweb.wvu.edu/eesp/ilearn/cost_registration.asp).

### **Professional Studies**

**Lois Longwood, Director**

360-650-6854

[www.extendeded.wvu.edu](http://www.extendeded.wvu.edu)

Professional enrichment opportunities are available for individuals interested in broadening their professional skills, exploring new careers, or seeking additional endorsements or courses for career enhancement.

Offerings include:

- **Credit Option/Clock Hour partnerships** with professional organizations provide Western credit or clock hours to partnership offerings. Course work must meet University academic standards. Contact: 360-650-3717
- **Certificate Programs** offer in-depth study in professional and specialized areas resulting in a certificate of completion when the program is successfully completed. Courses are designed to meet the busy schedules of adults. <http://www.acadweb.wvu.edu/eesp/template/programlist.shtml>

### **Summer Programs**

**Marlene Harlan, Director**

360-650-7221

[www.extendeded.wvu.edu](http://www.extendeded.wvu.edu)

**Summer Session** is a self-support quarter which offers academic credit and professional development courses. Over 450 courses are offered each summer and are open to WWU students and the public in Bellingham and King County. In addition to the traditional 6- and 9-week courses, offerings include short courses from 3 days on, online courses and faculty-led study abroad programs. 360-650-3308, [www.wvu.edu/summer](http://www.wvu.edu/summer).

**Conference Services** is active year-round in facilitating and planning professional conferences and workshops for groups and organizations. Services include fiscal management, registration, marketing, web development, hospitality, printing, media equipment and support. 360-650-6821, [www.conferences.wvu.edu](http://www.conferences.wvu.edu).

**Youth Programs** are designed for the academic pursuits and leadership development of youth in elementary, middle and high school. Participants live on campus or commute while they explore the arts, humanities, technology, science, outdoor challenges and more. 360-650-6820, [www.wvu.edu/youth](http://www.wvu.edu/youth)

- **College Quest** - This pre-college program for high school students entering grades 10-12 is offered each summer. Students complete a real college course, gain valuable "success in college" information, and form extraordinary social connections that come with life in a residence hall. College Quest will bridge the gap between high school and college and put students on a path to personal, educational, and career success.
- **Global Connections** - This program provides opportunities for youth in grades 4-6 from diverse cultures to build connections through academic enrichment and recreational activities emphasizing the development of cross-cultural relationships.
- **Grandparents U** - This intergenerational summer program is designed for grandparents and grandchildren (ages 7-14). Participants choose from exciting classes taught by WVU faculty. Each class provides opportunities to learn, have fun and create lifelong memories.
- **Odyssey of Science and Arts (Summer)** - WVU faculty, instructors and staff create summer academic enrichment offerings that will excite students entering grades 4-9. The resulting "signature" courses spotlight areas of their expertise and take advantage of WVU's campus. These courses offer a quality and uniqueness that is hard to find elsewhere. Students attend classes, participate in field trips, work on projects in specialized labs, and engage in a wide range of other hands-on activities which make learning interactive and fun.
- **Odyssey of Science and Arts (Academic year)** - This program is for students in grades K-5 who are eager to learn more about science or arts. Students spend an afternoon discovering and exploring exciting topics in science and arts.
- **Western Arts Preparatory Academy** is offered through the College of Fine and Performing Arts and features art, dance, music and theatre classes for youth, pre-two through high school, in the community and on the WVU campus. Participants learn about the arts through fun, age appropriate activities that build strength, awareness, and social skills. Western Arts Preparatory Academy strives to enrich the education of youth while developing valuable life enhancing skills in organization, discipline, and communication.
- **Western Kids Camp** - Kids entering grades K-6 participate in hands-on and interactive morning academic enrichment activities and programmed afternoon recreation based on a weekly theme. Theme-inspired summer sessions include nature, science, culture study, the arts, and more. Students utilize college classrooms, labs, equipment, playing fields, and the award-winning Wade King Student Recreation Center (WKSRC). Campers are divided into groups according to age and participate in age appropriate activities. Western Kids Camp is offered in partnership with WVU Extended Education and Campus Recreation.
- **WVU Lakewood Jr. Sailing Camp** - This summer sailing program for youth ages 11-18 is the oldest (since 1981) and most comprehensive sailing program in Whatcom County. Offered by WVU Viking Union/Lakewood Water Sport Facility, young sailors and windsurfers master skills in a natural environment at Lakewood Water Sport Facility, which is one of the premier facilities in the Northwest and located on the South shore of Lake Whatcom.

### Testing Center

Program Website: <http://www.wvu.edu/assess>

Phone: 360-650-3080

The mission of the Testing Center is to provide high quality and secure testing services for students, graduates, professionals, and those from the local and regional community. We strive to administer tests in a pleasant, technologically advanced environment with the goal of promoting satisfaction and achievement in reaching academic and professional goals. The Testing Center subscribes to the NCTA (National College

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Testing Association) Professional Standards and Guidelines for Post Secondary Test Centers and is a member of NCTA and CCTC (Consortium of College Testing Centers).

Other functions of the testing center include:

- Administers and proctors exams for independent study courses.
- Provides distance learning exams for both Western students and students attending other universities.
- Provides information on national testing programs.
- Maintains records of entrance test scores.
- Administers and proctors course challenge examinations.

## Extended Education Courses

### **EXT 129 - Writing Conventions**

Vocabulary of language, standard writing conventions, and the process of effective writing. Practice in identifying proper English usage and in developing fluent, professional writing.

Credits: 3

### **EXT 370 - Principles and Practices of Emergency Management**

An introduction to society's organized response to natural and technological hazards and disasters. Explore the history and evolution of the profession and investigate the organization of emergency management systems in public and private sectors.

Credits: 4

### **EXT 371 - Practical Applications of Emergency Management**

Study the theory and techniques involved in developing an emergency management plan for a public or private sector organization. Explore the processes involved in data gathering, hazard identification and vulnerability assessment, plan development, training and exercise. Students will prepare a draft emergency program development plan for the organization of their choice.

Credits: 3

### **EXT 372 - Law and Policy of Emergency Management**

Discusses the legal processes related to emergency management and their effect on social change, delivery systems, and affected populations. Readings encompass the intent, development, and use of legislative, judicial, administrative, and

policy/procedural systems within Federal, State, and local levels of government.

Credits: 3

### **EXT 424E - Current Educational Topics: Patterns, Functions, and Algebraic Thinking**

Designed to model a learning environment that meets the needs of all students, helping them become successful problem solvers who are able to use Math as a powerful tool for making sense of situations and information in the real world.

Credits: 4

### **EXT 424G - Current Educational Topics: Numerical Reasoning**

Designed as part of a series of mathematics content courses for educators. Participants will have opportunities to deepen their understanding of the mathematics of number. Participants will work as independent problem solvers in small collaborative groups within a classroom environment that fully models what we want for students. Performance assessment (WASL-type scoring rubrics, learning logs, observations and on demand assessment tasks) will be used to judge the quality of student work. In addition to doing and learning mathematics, participants will have professional articles to read and synthesize each evening, with group discussions of the articles held each morning. The course is designed so that teachers have opportunities to learn important mathematics and to experience and examine characteristics of an optimal environment. This fourth in a series of courses will provide educators with an opportunity to more fully understand number theory while continuing to prepare them to fundamentally restructure their classrooms so that

mathematics instruction is fully aligned with the goals and intent of the National Council of Teachers of Mathematics' 'Curriculum and Evaluation Standards' (1980), the NCTM 'Professional Teaching Standards' (1990), and Washington State's Essential Learnings in Mathematics.

Credits: 4

**EXT 424H - Current Educational Topics: Probability and Data Analysis**

Designed as part of a series of mathematics content courses for educators. Participants will have opportunities to deepen their understanding of the mathematics of probability and data analysis. Participants will work as independent problem solvers and in small collaborative groups within a classroom environment that fully models what we want for students. Performance assessment (portfolios, WASL-type scoring rubrics, learning logs, observations and on demand assessment tasks) will be used to judge the quality of student work. In addition to doing and learning mathematics, participants will study the research and literature on the brain, and mathematics learning. They will have professional articles to read and synthesize each evening, with group discussions of the articles held each morning. The course is designed so that teachers have opportunities to learn important mathematics and so that they experience and examine characteristics of an optimal learning environment. This third in a series of courses will provide educators with deep level experiences with concepts in probability and data while preparing them to fundamentally restructure their classrooms so that mathematics instruction is fully aligned with the goals and intent of the 'National Council of Teachers of Mathematics' 'Curriculum and Evaluation Standards' (1980), the NCTM 'Professional Teaching Standards' (1990), and Washington State's Essential Learnings in Mathematics.

Credits: 4

**EXT 424I - Current Educational Topics: Geometry and Proportional Reasoning**

Designed as part of a series of mathematics content courses for educators. Participants will

have opportunities to deepen their understanding of the mathematics of geometry and measurement with a particular focus on proportional reasoning. Participants will work as independent problem solvers and in small collaborative groups within a classroom environment that fully models what we want for students. Performance assessment (portfolios, WASL-type scoring rubrics, learning logs, observations and on demand assessment tasks) will be used to judge the quality of student work. In addition to doing and learning mathematics, participants will study the research and literature on the brain, and mathematics learning. They will have professional articles to read and synthesize each evening, with group discussions of the articles held each morning. The course is designed so that teachers have opportunities to learn important mathematics and so that they experience and examine characteristics of an optimal learning environment. This second in a series of courses will provide educators with a deep level of understanding of geometry, measurement and proportional reasoning while preparing them to fundamentally restructure their classroom so that mathematics instruction is fully aligned with the goals and intent of the National Council of Teachers of Mathematics 'Curriculum and Evaluation Standards (1989)', 'Professional Teaching Standards' (1990), and Washington State Essential Learnings in Mathematics.

Credits: 4

**EXT 424K - Developing and Assessing Mathematical Understandings: Patterns II**

Patterns II builds on the mathematical ideas from MEC's initial course, Patterns: Foundations for Algebraic Reasoning, with an emphasis on geometric, graphical and symbolic representations of growth patterns and algebraic expressions. Participants will continue to work with linear growth patterns emphasizing the five representations, spend more time with quadratic and exponential relationships, and learn to interpret change over time from graphs. They will learn to graph phenomena that change over time, and they will examine how algebraic expressions and graphical representations change when patterns are shifted. The course models the Mathematical Practice Standards that are central to

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the Common Core State Standards.

Credits: 4

### **EXT 424L - Developing and Assessing Mathematical Understandings: Reasoning with Data**

Statistics and quantitative reasoning are central to the new Common Core State Standards. They are essential to success in the workplace of today and to success as an informed citizen. The ability to interpret numerical information, to deal with data thoughtfully, to ask critical questions, and to determine the logic of claims are all essential skills in the 21st Century. S/U grading.

**Prerequisites & Notes:** EXT 424E

Credits: 2

Grade Mode: S/U

### **EXT 425A - Human Resources in Education Leadership Program Level 1 PART A**

Public education has been changing dramatically in the last ten years. Human resource management is also needing to change to support the programs and practices provided by district personnel conducting both direct (teaching) and indirect (those personnel supporting teaching) services. This course is designed to provide the introductory HR skills to support a committed, knowledgeable, and customer oriented staff. Participants will be exposed to a history of human resources, basic HR legal aspects, collaborative teaming, records, school finance, and the recruitment, selection, and induction of district personnel. Students must register for both EXT 425A and 425B at the same time. S/U grading. Not repeatable for credit.

**Prerequisites & Notes:** Co-req EXT 425B.

Credits: 4

Grade Mode: S/U

### **EXT 425B - Human Resources in Education Leadership Program Level 1 PART B**

Public education has been changing dramatically in the last ten years. Human resource management is also needing to change to support the programs and practices provided by district personnel conducting both direct (teaching) and indirect (those personnel supporting teaching) services. This course is designed to provide the introductory

HR skills to support a committed, knowledgeable, and customer oriented staff. Participants will be exposed to a history of human resources, basic HR legal aspects, collaborative teaming, records, school finance, and the recruitment, selection, and induction of district personnel. Students must register for both EXT 425A and 425B at the same time. S/U grading. Not repeatable for credit.

**Prerequisites & Notes:** Co-req: EXT 425A.

Credits: 4

Grade Mode: S/U

### **EXT 425C - Human Resources in Education Leadership Program Level 2 PART 1**

Public education has been changing dramatically in the last ten years. Human resource management is also needing to change to support the programs and practices provided by district personnel conducting both direct (teaching) and indirect (those personnel supporting teaching) services. This course is designed to provide the introductory HR skills to support a committed, knowledgeable, and customer oriented staff. Participants will be exposed to a history of human resources, basic HR legal aspects, collaborative teaming, records, school finance, and the recruitment, selection, and induction of district personnel. Students must register for both EXT 425C and 425D at the same time. S/U grading. Not repeatable for credit.

**Prerequisites & Notes:** Pre-req: EXT 425A, 425B; Co-req: EXT 425D.

Credits: 4

Grade Mode: S/U

### **EXT 425D - Human Resources in Education Leadership Program Level 2 PART 2**

Public education has been changing dramatically in the last ten years. Human resource management is also needing to change to support the programs and practices provided by district personnel conducting both direct (teaching) and indirect (those personnel supporting teaching) services. This course is designed to provide the introductory HR skills to support a committed, knowledgeable, and customer oriented staff. Participants will be exposed to a history of human resources, basic HR legal aspects, collaborative teaming, records, school finance, and the recruitment, selection, and induction of district personnel. Students must

register for both EXT 425C and 425D at the same time. S/U grading. Not repeatable for credit.

**Prerequisites & Notes:** Pre-req: EXT 425A, 425B; Co-req: EXT 425C.

Credits: 4

Grade Mode: S/U

**EXT 425E - Human Resources in Education Leadership Program Level 3 PART 1**

Public education has been changing dramatically in the last ten years. Human resource management is also needing to change to support the programs and practices provided by district personnel conducting both direct (teaching) and indirect (those personnel supporting teaching) services. This course is designed to provide the introductory HR skills to support a committed, knowledgeable, and customer oriented staff. Participants will be exposed to a history of human resources, basic HR legal aspects, collaborative teaming, records, school finance, and the recruitment, selection, and induction of district personnel. Students must register for both EXT 425E and 425F at the same time. S/U grading. Not repeatable for credit.

**Prerequisites & Notes:** Co-req: EXT 425F.

Credits: 4

Grade Mode: S/U

**EXT 425F - HELP Level 1 PART F**

Public education has been changing dramatically in the last ten years. Building upon the first two years of this program human resource management is also needing to change to support the programs and practices provided by district personnel conducting both direct (teaching) and indirect (those personnel supporting teaching) services. This course is designed to provide the introductory HR skills to support a committed, knowledgeable, and customer oriented staff. Participants will be exposed to a history of human resources, basic HR legal aspects, collaborative teaming, records, school finance, and the recruitment, selection, and induction of district personnel. Students must register for both EXT 425E and 425F at the same time. S/U grading. Not repeatable for credit.

**Prerequisites & Notes:** Pre-req: EXT 425A, 425B, 425C, 425D; Co-req: EXT 425E.

Credits: 4

Grade Mode: S/U

**EXT 450A - Current Topics for Professionals: Principles and Practices of Project Management**

This course, which is tailored for the business leader, education professional, and office administrator, provides the conceptual framework and practical tools to effectively plan and manage the activities of small, medium and complex projects. Students identify a project of their own and use project management tools and methods to prepare a detailed project plan. S/U grading only

Credits: 1-5

**EXT 450B - Current Topics for Professionals: Web Design and Development Certificate, Part 1**

Class will focus on providing an essential and solid foundation in HTML using an easy to learn approach. Learn how to format text, place photographs and web graphics, create page backgrounds, set up text and image hyper links and how to set up web page templates using HTML tables. Acquire professional page and site design skills and learn about proven design layouts that work, a user-friendly navigation scheme, how to prepare JPG and GIF images for web using Adobe PhotoShop, and how to set up an active website on a remote web server. S/U grading only.

Credits: 2

Grade Mode: S/U

**EXT 450C - Current Topics for Professionals: Web Design and Development Certificate, Part 2**

Class will focus on providing an essential and solid foundation in HTML using an easy to learn approach. Learn how to format text, place photographs and web graphics, create page backgrounds, set up text and image hyper links and how to set up web page templates using HTML tables. Acquire professional page and site design skills and learn about proven design layouts that work, a user-friendly navigation scheme, how to prepare JPG and GIF images for web using Adobe PhotoShop, and how to set up an active website on a remote web server. S/U grading only.



## EXTENDED EDUCATION

**Prerequisites & Notes:** EXT 450B or permission of instructor.

Credits: 2

Grade Mode: S/U

### **EXT 450D - Current Topics for Professionals: Web Design and Development Certificate, Part 3**

Class will focus on providing an essential and solid foundation in HTML using an easy to learn approach. Learn how to format text, place photographs and web graphics, create page backgrounds, set up text and image hyper links and how to set up web page templates using HTML tables. Acquire professional page and site design skills and learn about proven design layouts that work, a user-friendly navigation scheme, how to prepare JPG and GIF images for web using Adobe PhotoShop, and how to set up an active website on a remote web server. S/U grading only.

**Prerequisites & Notes:** EXT 450B & 450C, or permission of instructor.

Credits: 2

Grade Mode: S/U

### **EXT 450E - Current Topics for Professionals: Family Mediation Training**

Family Mediation Training teaches mediators how to help families resolve conflicts, with a primary focus on helping couples through a dissolution. You will learn how to handle emotionally volatile situations, help parents focus on the needs of their children in order to create and modify parenting plans that work for everyone as well as tips and techniques for dealing with difficult family cases.

Credits: 2

### **EXT 450F - Current Topics for Professionals: Basic Mediation Training**

Basic Mediation teaches alternative dispute resolution theory and practice to people who want to add mediation techniques and to those who intend to apply for the mediation certification program. Topics include an introduction to mediation practice, the role of the mediator, and an eight stage model of mediation, conflict theory and management, communication skills for mediators and negotiation methods.

Credits: 4

### **EXT 450G - Current Topics for Professionals: Project Management Professional Preparation**

Prepare for professional certification exams.

Covers the triad of project management: cost, scope, and schedule. Focus is on integrating the nine key areas of project management. Successful project management involves the consistent application of proven processes, methodologies, and policies, and their management control, to ensure projects are completed within budget, on schedule, and with quality design, features and functionality. S/U grading only.

Credits: 3

Grade Mode: S/U

### **EXT 450H - Microsoft Project Management Software**

Teaches basic and intermediate MS Project skills in the context of Project Management fundamentals in a hands-on lab environment. Students will learn to create files, templates, and reports in order to manage projects and tasks. S/U grading only.

Credits: 1

Grade Mode: S/U

### **EXT 450P - The Marine Naturalist**

Marine Naturalist Training is a marine focused course sponsored by The Whale Museum in Friday Harbor, WA. The course is endorsed for naturalist certification by the Washington/B.C. based Whale Watch Operators Association Northwest.

Certification from the course allows graduates to join the newly forming Salish Sea Association of Marine Naturalists (S.S.A.M.N.). S/U grading.

Credits: 2

Grade Mode: S/U

### **EXT 450Q - Stream and Wetland Ecology Basic Training**

The purpose of this training program is to provide stream and wetland ecology basic training to individuals who have a personal or professional interest in streams and wetlands, but have not had any formal natural resource science training. This course is appropriate for Land Use Policy Makers,

Developers, Real Estate Agents, Appraisers, Teachers, Streamside and Wetland Property Owners, and anyone interested in stream and wetland ecology. S/U grading.

Credits: 1

Grade Mode: S/U

**EXT 450R - Rediscovery Teachers Institute**

The purpose of this course is to train teachers in the interactive games and experiential/inquiry based teaching techniques that are addressed in the course text: Rediscovery: Ancient Paths - New Directions and As If The Earth Matters. That training will take place over a two-day period as outlined below. During the course participants will be taught how to understand scientific concepts and principles that are needed to advance student learning; and how to stimulate students to analyze local, regional, national, or global problems or challenges and employ scientific design to solve those problems. S/U grading.

Credits: 2

Grade Mode: S/U

**EXT 450T - Introduction to SQL Server 2005/2008 and Transact SQL**

This course introduces the key concepts in relational database models and their implementation in Microsoft SQL Server. It focuses on developing the basic SQL server skills that would be needed for developers, administrators or people attempting to migrate data from Access to SQL Server. S/U grading.

Credits: 1

Grade Mode: S/U

**EXT 450U - Moving from MS Access to SQL Server**

This course covers in detail the steps and processes involved in moving data and applications from Microsoft Access over to Microsoft SQL Server. S/U grading.

**Prerequisites & Notes:** EXT 450T or instructor permission.

Credits: 1

Grade Mode: S/U

**EXT 450V - MS SQL Server 2005/2008 for Developers**

This course is intended for people who function as Developers of SQL Server systems. S/U grading.

**Prerequisites & Notes:** EXT 450T or permission of instructor.

Credits: 3

Grade Mode: S/U

**EXT 460 - Principles and Practices of Emergency Management**

Introduction to society's organized response to natural and technological hazards and disasters. Explore the history and evolution of the profession and investigate the organization of emergency management systems in public and private sectors. Required for Emergency Management certificate completion.

Credits: 3

**EXT 463 - Social Issues in Emergency Management in the 21st Century**

The effects of contemporary social issues and conflicts upon the development and delivery of emergency management systems in the United States are outlined. Gain an understanding of the varying constraints and motivations of people. Lessons in the response of cross-cultural, religious, and special needs populations before, during, and after a disaster are provided.

**Prerequisites & Notes:** EXT 370, 371, 372; or instr perm

Credits: 4

**EXT 464 - Group Dynamics and Facilitation of Emergency Management Systems**

Evaluate group systems in relation to the effective implementation of emergency management systems. Review solutions for organizational problems and assess the role of conflict management in an emergency management setting.

**Prerequisites & Notes:** EXT 370, 371 & 372 or instructor permission.

Credits: 3

**EXT 465 - Impact of Disaster**

## EXTENDED EDUCATION

Investigates the impact and consequences of post-traumatic stress on victims, families, emergency workers, and community members resulting from natural disasters, human-made emergencies, or societal violence.

**Prerequisites & Notes:** EXT 370, 371, 372; or instructor permission  
Credits: 4

### **EXT 466 - Effective Communication Strategies in Emergency Management**

This course examines interpersonal dynamics of verbal and written communication in relation to the four phases of disaster management. The focus is directed at analyzing communication issues, listening effectively, understanding non-verbal communication, public speaking, and working with the media. In addition, tailoring communication styles to meet the needs of a particular audience, examining appropriate types of presentations, and the value of empathetic listening and effective feedback, will be emphasized.

**Prerequisites & Notes:** EXT 370, 371, 372; or instructor permission  
Credits: 3

### **EXT 467 - Emergency Management and the Challenge of Terrorism**

Provides an introduction to the hazards posed by terrorism and the response to terrorism through the lens of the duties and functions inherent in the role of the emergency manager.

**Prerequisites & Notes:** EXT 370, 371, 372; or instructor permission  
Credits: 3

### **EXT 494 - Emergency Management Service Learning Internship**

Open only to students of the Emergency Management Certificate. Internship is designed primarily for students who have had little exposure to the field of emergency management. Students find their own placement to gain hands-on practical experience with a public, private, or non-profit organization. Program provides guidance and goals. S/U grading. Repeatable to a maximum of six credits.

**Prerequisites & Notes:** EXT 370, 371, 372 or permission of instructor, and a minimum of 18 credits in the cert program.

Credits: 2-6

Grade Mode: S/U

### **EXT 495 - Professional Research Project in Emergency Management**

Professional research project designed primarily for students who have extensive career experience in the emergency management field. Self-guided project designed to enhance knowledge of a particular subject area relevant to the student's current career responsibilities. Project supervised academically by program faculty. S/U grading only. Repeatable to a maximum of 6 credits.

**Prerequisites & Notes:** EXT 370, 371 & 372, or permission of instructor, and completed a min of 18 credits in cert program. Open only to students of the Emergency Management Certificate.

Credits: 2-6

Grade Mode: S/U

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LYLE HARRIS

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Beisenherz, Paul / Teacher Education Outreach Programs

Bendetti, Dina / Teacher Education Outreach Programs  
 Benson, Earl D. / Finance and Marketing  
 Benyi, Arpad / Mathematics  
 Berardi, Gigi / Environmental Studies  
 Berger, Robert / Chemistry  
 Bianco, Christopher / Music  
 Bingham, Brian L. / Environmental Sciences  
 Biswas, Bidisha / Political Science  
 Bodensteiner, Leo R. / Environmental Sciences  
 Boland, Elizabeth / Human Services and Rehabilitation  
 Bone, Amber / Music  
 Borda, Emily / Chemistry  
 Bordoloi, Samit / Human Services and Rehabilitation  
 Boudreaux, Andrew/Physics and Astronomy  
 Bourne, Patricia / Music  
 Bover, David / Computer Science  
 Bower, John L. / Fairhaven College  
 Boxberger, Daniel L. / Anthropology  
 Bradley, Karen / Sociology  
 Brand, Rob / Elementary Education  
 Braun, Janet / Engineering Technology  
 Briggs, Roger D. / Music  
 Brilla, Lorraine / Physical Education, Health and Recreation  
 Broadhagen, Marion / Biology  
 Brown, Nicole / English  
 Brown, Richard / Theatre and Dance  
 Buckley, Patrick H. / Environmental Studies  
 Bulcroft, Richard / Sociology  
 Bunn, Andrew / Environmental Sciences  
 Bunn, Rebecca / Environmental Sciences  
 Burgess, Donald / Secondary Education  
 Burton, Brian K. / Management  
 Burtz, Randall / Physical Education, Health and Recreation  
 Bussell, Mark E. / Chemistry  
 Byrne, Christina A. / Psychology

**C**

Camlin, Cynthia / Art  
 Campbell, Sarah K. / Anthropology  
 Caplan-Auerbach, Jacqueline / Geology  
 Carbajal, Brent J. / Modern and Classical Languages  
 Carnell, Cher / Theatre and Dance  
 Carney, Joanne / Instructional Technology and Elementary Education  
 Carroll, David / Elementary Education  
 Carroll, Jeff / Psychology  
 Chalice, Donald R. / Mathematics  
 Chalmers, Gordon / Physical Education, Health and Recreation  
 Chan, Victor / Mathematics  
 Chen, Paul / Political Science  
 Chu, Marilyn / Elementary Education / Early Childhood Education  
 Clark, Douglas / Geology  
 Cohen, Jessica / Mathematics

## UNIVERSITY PERSONNEL

Conton, Leslie / Fairhaven College  
Corbin, Hope / Human Services and Rehabilitation  
Coskie, Tracy / Elementary Education  
Costanzo, Susan / History  
Coulter, Gail / Special Education  
Cox, Christopher / Library  
Cubin, Sondra / Human Services and Rehabilitation  
Cunningham, Mick / Sociology  
Curgus, Branko / Mathematics  
Currier, Deborah Greer / Theatre and Dance  
Cushman, Jeremy / English  
Czopp, Alexander / Psychology

### **D**

Dade, Karen McLean / Woodring  
Dagnon, Paula / Elementary Education  
Dahlberg, Caroline / Biology  
Dale, Carolyn / Journalism  
Danysk, Cecilia A. / History  
Darling, Rieko M. / Communication Sciences and Disorders  
de Almeida, Cristina / Art  
de la Paz, Oliver / English  
DeBari, Susan / Geology  
DeChaine, Eric / Biology  
Deguchi, Masanori / Modern and Classical Languages  
Deiro, Judith Anne / Human Services and Rehabilitation  
Denham, Kristin / English  
Dennett, Nolan A. / Theatre and Dance  
Devenport, Jennifer / Psychology  
Deylami, Shirin / Political Science  
Diehl, Peter D. / History  
Dietrich, Dawn Y. / English  
Dinnel, Dale L. / Psychology  
Dolar, Burak / Accounting  
Donnellan, Grant / Music  
Donovan, Deborah / Biology  
Donovan, Todd A. / Political Science  
Dozier, Raine / Human Services and Rehabilitation  
Dubenion-Smith, Shannon / Modern and Classical Languages  
Dunn, Craig / Management  
Dupont, Brandon / Economics  
Durham, Yvonne / Economics  
Du Rocher Schudlich, Tina / Psychology

### **E**

Eaton, Marie D. / Fairhaven College  
Emory, Steven R. / Chemistry  
Estrada, Lawrence / Fairhaven College and American Cultural Studies  
Eurich, Susan A. / History

### **F**

Fast, Margaret / Library  
Feinberg, Seth / Sociology  
Feingold, David / Music

Feodorov, John / Fairhaven College  
 Fewings, David R. / Finance and Marketing  
 Fiero, Petra / Modern and Classical Languages  
 Finlay, Janet / Psychology  
 Fitzpatrick, Timothy / Music  
 Fizzano, Perry / Computer Science  
 Flores, Maria Timmons / TESOL/Elementary Education  
 Flower, Aquila / Environmental Studies  
 Folk, Holly / Liberal Studies  
 Foreman, Brady / Geology  
 Forgays, Deborah K. / Psychology  
 Fortney, James / Communication Studies  
 Fraas, Michael / Communication Sciences and Disorders  
 Freeman, Jeanne / Physical Education, Health and Recreation  
 French, Kristen / Elementary Education  
 Friday, Christopher C. / History  
 Friesen, John / Music  
 From, Milton / Physics and Astronomy

**G**

Gammon, Steven / Chemistry  
 Ganz, Steven H. / Decision Sciences  
 García, Hugo / Modern and Classical Languages  
 García, Joseph E. / Leadership Studies  
 Gardner, Richard J. / Mathematics  
 Garfinkle, Steven J. / History  
 Geary, Edward / Science Education and Geology  
 Geisler, Marc S. / English  
 Ghali, Moheb A. / Economics  
 Giffen, Allison / English  
 Gilbertson, David / Accounting  
 Gilbertson, John / Chemistry  
 Gilliam, Jeffrey P. / Music  
 Glimm, Tilmann / Mathematics  
 Globerman, Steven / Economics  
 Goebel, Bruce / English  
 Gogröf-Voorhees, Andrea / Liberal Studies  
 Goodnow, Jasmine / Recreation  
 Goodvin, Rebecca / Psychology  
 Gossett, J. Gabriel / Library  
 Goto, Stanford / Educational Leadership - Continuing and College Education  
 Gour, Pierre / Art  
 Graham, James / Psychology  
 Green, Gaye Leigh / Art  
 Green, Jennifer / TESOL  
 Grimm, Jeffrey / Psychology  
 Gruman, Diana / Psychology  
 Guelker-Cone, Leslie / Music  
 Guess, Carol / English  
 Gupta, Dipak / Theatre and Dance  
 Guyette, Charlotte / Theatre and Dance

## UNIVERSITY PERSONNEL

Guyette, Daniel G. / Theatre and Dance  
Gynan, Shaw N. / Modern and Classical Languages

### **H**

Hagen, Daniel A. / Economics  
Haines, Susan / Theatre and Dance  
Hamblin, Vicki L. / Modern and Classical Languages  
Hamilton, Bruce / Music  
Hammond, Joyce D. / Anthropology  
Hanania, Cecile / Modern and Classical Languages  
Hansen, Julia / Economics  
Hansen, Thor A. / Geology  
Harris, John / Journalism  
Hart, Monica / Theatre and Dance  
Hartenstine, David / Mathematics  
Harwood, Angela M. / Secondary Education  
Haskell, Todd / Psychology  
Haug, Peter / Decision Sciences  
Hayfron, John / Economics  
Hearne, James W. / Computer Science  
Helfield, James / Environmental Sciences  
Helling, Julie / Fairhaven  
Helms, Ronald / Sociology  
Hendryson, MaryAnn / Economics  
Henson, Steven / Economics  
Hirsch, David / Geology  
Hochstetler, Laurie / History  
Hodges, Hart L. / Economics  
Hoekstra, Nicole / Engineering Technology  
Hoelscher, Karen J. / Elementary Education  
Hoffman, Joan M. / Modern and Classical Languages  
Homann, Peter S. / Environmental Sciences  
Hooper, David / Biology  
Horne, Cynthia / Political Science  
Housen, Bernard A. / Geology  
Howard-Snyder, Daniel / Philosophy  
Howard-Snyder, Frances / Philosophy  
Hsueh, Vicki / Political Science  
Hua, Stella / Decision Sciences  
Hudson, Hud / Philosophy  
Hughes, Eileen / Elementary Education/Early Childhood Education  
Hunter, Joseph / Educational Administration  
Hutchinson, Brian / Computer Science  
Hutchinson, Penny / Theatre and Dance  
Hutton, Marguerite R. / Accounting  
Hyatt, Keith / Special Education  
Hyman, Ira E. Jr. / Psychology

### **I**

Inverarity, James / Sociology

### **J**

Jack, Dana C. / Fairhaven College  
 Jancic, Mitchell / Elementary Education  
 Janson, Carol / Art  
 Jantzen, Kelly J. / Psychology  
 Jantzen, McNeel / Psychology  
 Jaye, Cara / Art  
 Jelaca Jovanovic, Milica / Music  
 Jensen, Kirsten / Secondary Education  
 Jimerson, Randall C. / History  
 Joffrion, Elizabeth / Library  
 Johnson, Brad L. / Physics and Astronomy  
 Johnson, James L. / Computer Science  
 Johnson, Jerry L. / Mathematics  
 Johnson, Mildred / Mathematics  
 Johnson, Nancy J. / English  
 Johnson, Vernon D. / Political Science  
 Jones, Diana / Human Services and Rehabilitation  
 Jusak, Debra S. / Computer Science

**K**

Kahakauwila, Kristina / English  
 Kam, Foong Janice / Modern and Classical Languages  
 Kanov, Jason M. / Management  
 Karlberg, Michael / Communication Studies  
 Kasprisin, Lorraine / Educational Foundations; Secondary Education  
 Keeler, Linda / Physical Education, Health & Recreation  
 Keppie, Christina / Modern and Classical Languages  
 Keller, Jennifer / Journalism  
 Kelley, Bridget / Special Education  
 Kim, Ilhyung / Decision Sciences  
 Kim, Jongwook / Management  
 King, Jeff / Psychology  
 Kingma, Theresa / Special Education / Compass 2 Campus  
 Kitto, Kathleen L. / Engineering Technology  
 Knabb, Shawn / Economics  
 Kodner, Robin / Biology  
 Koetje, Todd A. / Anthropology  
 Kong, Sophie / Finance and Marketing  
 Korsmo, John / Human Services and Rehabilitation  
 Krieg, John / Economics  
 Kriz, George S. / Chemistry  
 Kuntz, Mark / Theatre and Dance  
 Kuntz, Pam / Theatre and Dance

**L**

LaBorde, Pamela L. / Finance and Marketing  
 Laffrado, Laura / English  
 Lambert, Michael Chuck / Special Education  
 Landis, Wayne G. / Environmental Sciences  
 Lerner, Daniel M. / Fairhaven College  
 Laroche, Lyubov / Teacher Education Outreach Programs  
 Larsen, Donald / Educational Administration  
 Larson, Bruce E. / Secondary Education



## UNIVERSITY PERSONNEL

Larson, Kristen / Physics and Astronomy  
Larson, Nicole / Engineering Technology  
Leaf, David S. / Biology  
Lee, Ee Lin / Communication Studies  
Leger, Janelle / Advanced Materials Science and Engineering  
Lehman, Barbara / Psychology  
Lemm, Kristi / Psychology  
Leonard, Beth / Theatre and Dance  
Leonard, Kevin A. / History  
Leonhardt, Eric C. / Engineering Technology  
Lewis, L. Floyd / Decision Sciences  
Lewis, Lucy / Psychology  
Liao-Troth, Matthew / Management  
Lin, Ying / Engineering Technology  
Li, Ying / Physical Education, Health and Recreation  
Linneman, Scott / Geology  
Loar, Christopher / English  
Lobeck, Anne / English  
Lois, Jennifer / Sociology  
Lopez, A. Ricardo / History  
Lopresti, Robert / Library  
Lorenzen, Michael / Library  
Lortz, James E. / Theatre and Dance  
Loucky, James / Anthropology  
Love, Brooke / Environmental Sciences  
Love, Edwin / Finance and Marketing  
Luce, Kristina / Art  
Lund, John / Engineering Technology  
Lundeen, Kathleen / English  
Luo, Baozhen / Sociology  
Lyne, William / English  
Lynn, Kimberly / Liberal Studies

**M**

McClain, Lee / Decision Sciences  
McClanahan, Lauren / Secondary Education  
McLean Kesler, Christie / Teacher Education Outreach Programs  
McLeod, Maria / Journalism  
McCormick, Patrick F. / Art  
McDowall, Stephen / Mathematics  
McEvoy, Glenn / Management  
McLaughlin, John F. / Environmental Sciences  
McLean, Kate C. / Psychology  
Madsen, Leza (Elizabeth) / Library  
Madunic, Marko / Management  
Magee, Kelly / English  
Mahoney, Kristin / English  
Majors, Diane / TESOL/Elementary Education  
Mana, Michael / Psychology  
Manago, Adriana / Psychology  
Mariz, George E. / History  
Markosian, Ned / Philosophy

Markworth, Kimberly / Mathematics  
 Marrall, Rebecca / Library  
 Marshall, Robert C. / Anthropology  
 Martin, LeaAnn / Physical Education, Health and Recreation  
 Mathers-Schmidt, Barbara / Communication Sciences and Disorders  
 Matthews, Geoffrey B. / Computer Science  
 Matthews, Robin A. / Environmental Sciences  
 Mayberry, Craig / Management  
 Mears, Derrick / Physical Education, Health and Recreation  
 Medler, Michael / Environmental Studies  
 Meehan, J. Michael / Computer Science  
 Melious, Jean O. / Environmental Studies  
 Mendes, Sebastian / Art  
 Merrill, Richard / Theatre and Dance  
 Metzger, Mary J. / English  
 Mielke, Michelle / Physical Education, Health and Recreation  
 Miles, John C. / Environmental Studies  
 Miles, Scott / Environmental Studies  
 Miller, Barbara / Art  
 Miller, Brenda / English  
 Miller, Kate / Women Studies, and American Cultural Studies  
 Miller, Marilyn / Secondary Education  
 Miller, Matthew / Elementary Education  
 Miner, Benjamin / Biology  
 Miran, Jonathan / Liberal Studies  
 Mitchell, Robert J. / Geology  
 Mogford, Liz / Sociology  
 Montoya-Lewis, Raquel / Fairhaven College  
 Mookherjee, Debnath / Environmental Studies  
 Morgan Parmett, Helen / Communication  
 Morris, Jason / Engineering Technology  
 Morrow, Kacey / Art  
 Morton, Todd / Engineering Technology  
 Mosher, M.J. / Anthropology  
 Mottner, Sandra / Finance and Marketing  
 Moulds, Cynthia / Women Studies  
 Mount, Jill / Nursing  
 Moyer, Craig L. / Biology  
 Murphy, Amanda, / Chemistry  
 Murphy, Dennis R. / Economics  
 Murphy, Sean / Liberal Studies  
 Myers, O. Eugene / Environmental Studies

**N**

Neem, Johann / History  
 Nelson, David M. / Economics  
 Nelson, Philip A. / Computer Science  
 Newcomer, Jeffrey / Engineering Technology  
 Nicholas, Trula / Human Services and Rehabilitation  
 Nielsen, Carolyn / Journalism  
 Nolet, Victor / Secondary Education

## UNIVERSITY PERSONNEL

Nuzum, Kathleen / History  
Nyman, Adam / Mathematics

### **O**

Ohana, Chris / Elementary Education  
Olney, Thomas J. / Finance and Marketing  
O Murchu, Niall / Fairhaven College  
O'Neil, Gregory / Chemistry  
Oslapas, Arunas P. / Engineering Technology  
Otto, Joann / Biology  
Ousselin, Edward / Modern and Classical Languages

### **P**

Paola, Suzanne L. / English  
Paredes Mendez, Maria F. / Modern and Classical Languages  
Parker, Jennifer / Special Education  
Parmett, Helen Morgan / Communication Studies  
Parris, Kristen D. / Political Science  
Partsch, Cornelius / Modern and Classical Languages  
Patrick, David L. / Chemistry  
Patterson, Charles / Modern and Classical Languages  
Pearce, Scott / Liberal Studies  
Pencil, Kraig K. / Decision Sciences  
Penland, Diane / Teacher Education Outreach Programs  
Perry, Tara / Communication Studies  
Peters, Kimberly / Communication Sciences and Disorders  
Peterson, Andrea / Library  
Peterson, Merrill A. / Biology  
Pillitteri, Lynn / Biology  
Pine, Judith / Anthropology  
Piper, Paul / Library  
Powell, Kristan Skylar / Management  
Prody, Gerry A. / Chemistry  
Purdue, Jeffrey / Library  
Purdue, Seiko Atsuta / Art  
Purdy, John / English

### **Q**

Qualley, Donna J. / English

### **R**

Rangel Guerrero, Daniel / Modern and Classical Languages  
Ramael, David / Music  
Read, Thomas / Mathematics  
Riddle Buly, Marsha / Elementary Education  
Riemann, Andreas / Physics and Astronomy  
Rines, Kenneth / Physics and Astronomy  
Riordan, Catherine / Psychology  
Rittenhouse, Seth / Physics  
Ritter, Marian B. / Library  
Rivera, Alicia Maria / English  
Robertson, Wayne / Educational Administration  
Robinson, Leanne / Instructional Technology and Special Education  
Roehl, Thomas / Management  
Roelofs, Matthew R. / Economics

Romano, Rosalie / Secondary Education  
 Rose, Jacqueline / Psychology  
 Rossiter, David / Environmental Studies  
 Russell, Keith / Physical Education, Health and Recreation  
 Rutschman, Carla J. / Music  
 Rybczyk, John M. / Environmental Sciences  
 Rystrom, David S. / Finance and Marketing

**S**

Safavi, Farrokh / Finance and Marketing  
 Salazar, Debra J. / Political Science  
 Sampaio, Christina / Psychology  
 Sanders, George D. / Accounting  
 Sands, John / Management  
 Sandvig, J. Christopher / Decision Sciences  
 San Juan, Bernardo / Kinesiology  
 Sapin, Julia / Art  
 Sarkar, Amites / Mathematics  
 Sasnett, Roger / Special Education  
 Sass, Mary / Management  
 Sattler, David / Psychology  
 Saxton, David / Theatre and Dance  
 Schade, Brittany / Design  
 Schaeffer, Christine / Teacher Education Outreach Programs/Secondary Education  
 Schermer, Elizabeth R. / Geology  
 Schleef, Linda / Special Education  
 Schudlich, Tina du Rocher / Psychology  
 Schulze, Sandra / Biology  
 Schwandt, Hilary / Fairhaven  
 Schwarz, Dietmar / Biology  
 Schwartz-Dupre, RaeLynn / Communication Studies  
 Schwede, Walter / Music  
 S'eiltin, Tanis M. / Fairhaven College  
 Seltz, Jennifer / History  
 Senge, Stephen / Accounting  
 Shen, Yun-Qiu / Mathematics  
 Shepard, Cyndie / Special Education / Compass 2 Campus  
 Sheppard, Shelby / Secondary Education  
 Shewmake, Sharon / Economics  
 Shillam, Casey / Human Services and Rehabilitation  
 Shull, David / Environmental Sciences  
 Sim, Khim / Accounting  
 Simone, Genét / Teacher Education Outreach Programs  
 Singh-Cundy, Anu / Biology  
 Singleton, Sara / Political Science  
 Singleton, William R. / Accounting  
 Skillman, Trish / TESOL/Elementary Education  
 Smirnov, Serge / Chemistry  
 Smith, Kenton D. / Art  
 Smith, Peter / Library  
 Smith, Steven / Accounting  
 Sofield, Ruth / Environmental Sciences

## UNIVERSITY PERSONNEL

Sommer, Lesley / Music  
Spiegel, Paul / Chemistry  
Springer, Mark C. / Decision Sciences  
Stangl, Paul / Environmental Studies  
Staton, Mark G. / Finance and Marketing  
Stelling, Pete / Geology  
Stephan, Elizabeth / Library  
Stevenson, Joan C. / Anthropology  
Stewart, Mart / History  
Stickley, Beth / Special Education  
Stoops, Robert F., Jr. / Liberal Studies  
Storer, Paul A. / Economics  
Stout, Karen Rohrbauck / Communication Studies  
Suczek, Christopher A. / Geology  
Sula, Ozan / Economics  
Sulkin, Stephen / Shannon Point Marine Center / Biology  
Suprak, David / Physical Education, Health and Recreation  
Sylvester, Charles D. / Physical Education, Health and Recreation  
Symons, Lawrence / Psychology

### **T**

Tag, Stan / Fairhaven College  
Tag, Sylvia / Library  
Takagi, Midori / Fairhaven College  
Takele, Seda / Physics and Astronomy  
Taylor, Audrey / Accounting  
Teachman, Jay / Sociology  
Thomas, Bob / Library  
Thompson, Philip / Economics  
Thompson, Roger R. / History  
Thorndike-Christ, Tracy / Special Education  
Tomasi, Massimiliano / Modern and Classical Languages  
Treneer, Stephanie / Mathematics  
Trent, Carol / Biology  
Trimble, Joseph E. / Psychology  
Trueblood, Kathryn / English  
Tsunokai, Glenn / Sociology  
Tuxill, John / Fairhaven College  
Tyran, Craig K. / Decision Sciences  
Tyran, Kristi / Management

### **U**

### **V**

Vajda, Edward J. / Modern and Classical Languages  
van Boer, Bertil H., Jr. / Music  
VanderStaay, Steven L. / English  
Vassdal Ellis, Elsi M. / Art  
Vohs, Rosemary / Secondary Education  
Vulic, Kathryn / English  
Vyvyan, James R. / Chemistry

### **W**

Wallin, David O. / Environmental Sciences  
Wang, Grace / Environmental Studies

Wang, Jianglong / Communication Studies  
 Ware, Molly / Secondary Education  
 Warner, Daniel M. / Accounting and Management  
 Wasserman, Ryan / Philosophy  
 Watt, Peggy / Journalism  
 Wayne, Kate / Elementary Education  
 Webb, Sheila / Journalism  
 Weir, Sara J. / Political Science  
 Whalley, Pamela / Economics/Director, Center for Economic and Financial Education  
 Whitcomb, Dennis / Philosophy  
 Wiese, J. / Theatre and Dance  
 Wilhelm, Wendy J. / Finance and Marketing  
 Wise, Christopher / English  
 Wolpow, Ray / Secondary Education  
 Woods, Steven / Communication Studies  
 Wonder, Nicholas X. / Finance and Marketing  
 Wright, Diana E. / History

**X**

Xing, Zhiqun Janet / Modern and Classical Languages

**Y**

Yip-Hoi, Derek / Engineering Technology  
 Young, Jeff / Biology  
 Young, Kathleen / Anthropology  
 Ypma, Tjalling J. / Mathematics  
 Yu, Ning / English  
 Yusa, Michiko / Modern and Classical Languages

**Z**

Zaferatos, Nicholas / Environmental Studies  
 Zhang, Jianna / Computer Science  
 Zhang, Jianying / Mathematics  
 Zhang, Zhe George / Decision Sciences  
 Zimmerman, Sarah / History  
 Zoro, Eugene S. / Music

**Libraries****Librarians**

JEANNE ARMSTRONG (1997) Associate Professor. BA, University of Dayton; MA, Rosary College Graduate School; PhD, University of Arizona.  
 MARGARET FAST (1997) Associate Professor. BA, Mills College; MA, University of British Columbia; MLS, State University of New York-Albany.  
 GABRIEL GOSSETT (2009) Instructor, BA, University Wisconsin-Milwaukee; MLIS, University Wisconsin-Madison  
 ELIZABETH JOFFRION (2012) Assistant Professor, BA, Louisiana State University; MA, University of New Orleans; MLIS, University of Maryland.  
 ROBERT LOPRESTI (1987) Associate Professor. BA, Juniata College; MLS, Rutgers, The State University.  
 LEZA (ELIZABETH) MADSEN (2002) Associate Professor. BA, Western Washington State College; MLS, University of Hawaii; MA, Stanford University.  
 REBECCA MARRALL (2010) Instructor, BS, Portland State University; MLIS, University of Hawaii at Manoa.  
 ANDREA PETERSON (1999) Associate Professor. BA, University of Utah; MLS, Indiana University.

## UNIVERSITY PERSONNEL

PAUL PIPER (1997) Associate Professor. BS, MFA, University of Montana; MLIS, University of Hawaii.

JEFF PURDUE (1999) Associate Professor. BA, MA, University of Illinois at Chicago; MLS, Dominican University, River Forest, Illinois.

MARIAN A. RITTER (1969) Associate Professor. BME, MLS, University of Portland.

PETER A. SMITH (1990) Associate Professor. BA, MA, MLS, Wayne State University.

ELIZABETH A. STEPHAN (2008) Assistant Professor. BA, Northwest Missouri State University; MLS, University of Wisconsin-Madison.

SYLVIA TAG (1997) Associate Professor. BA, The Colorado College; MLIS, University of Iowa.

BOB THOMAS (2006) Associate Professor. BS, University of the State of New York; MLIS, University of Washington.

### **Degrees and Certificates**

Degrees granted from August 2011 to June 2012, inclusive:

Master of Education	53
Master of Arts	73
Master of Science	64
Master of Music	-
Master of Business Administration	40
Master in Teaching	55
Master of Professional Accounting	-
Bachelor of Arts in Education	190
Bachelor of Arts	2,374
Bachelor of Science	600
Bachelor of Fine Arts	8
Bachelor of Music	26
Total	3,483

*Recommended for certification* to the State Superintendent for Public Instruction — August 2011 to June 2012, inclusive:

Residency Teacher Certificate	304
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# **Appendix A- WWU Policies on Equal Opportunity/Nondiscrimination, Affirmative Action, Sexual Harassment, and Reasonable Accommodation**

## ***PROVIDING EQUAL OPPORTUNITY AND NONDISCRIMINATION (POL-U1600.02)***

Policy applies to all employees, students, agents, groups, individuals, and organizations that use university facilities and other members of the university community to the extent provided by law.

Authority: Titles VI and VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Sections 503 and 504 of the Rehabilitation Act of 1973, the Age Discrimination of 1967, the Vietnam Era Veterans Readjustment Assistance Act of 1972, the Americans with Disabilities Act of 1990, ADA Amendments Act of 2008, the Civil Rights Act of 1991, the Veteran's Employment Opportunities Act of 1998, and the Washington State Law Against Discrimination, Chapter 49.60 RCW, Title II of the Genetic Information Nondiscrimination Act of 2008.

1. The University is Committed to Providing Equal Employment Opportunity and Prohibiting Illegal Discrimination in All Aspects of Employment and for Students in Academic Programs
2. Illegal Discrimination is Prohibited - Discrimination on the basis of race, color, creed, religion, national origin, sex, age, disability, marital status, veteran status, sexual orientation, gender identity or expression, and genetic information is illegal and prohibited.
3. The President, as Delegate of the Board of Trustees, Affirms the University Shall Comply With Applicable Laws

The President or the President's delegate shall:

- A. Develop, monitor and enforce university policies governing recruitment and selection to remove barriers to equal employment opportunity and prevent illegal discrimination.
  - B. Ensure that promotion and hiring decisions are in accordance with the principles of equal employment opportunity.
  - C. Administer personnel actions such as hiring, promotion, separation, compensation, benefits, transfers, layoffs, returns from layoff, university-sponsored training, education, tuition assistance, and social and recreational programs with fairness and equity.
  - D. Prohibit illegal discrimination in the recruitment and admission of students, and in the operation of all university programs, activities and services.
  - E. Cooperate with federal and state agencies in fulfilling its obligations under the laws of the United States and the State of Washington.
4. All Members of the University Community Ensure That Commitment to Equal Opportunity and the Nondiscrimination is an Integral Part of WWU
  5. The Board of Trustees Pledges That Every Reasonable Effort is Made to Provide The Resources Necessary to Implement This Policy
  6. The University Provides an Internal Procedure for Reporting Discrimination  
Individuals who believe they have been subject to discrimination based on a legally protected category are encouraged to report incidents to the proper internal and/or external authorities, as outlined in the PRO-U1600.02A Discrimination Complaint Procedure.  
Effective Date: June 9, 2009. Approved By: President Bruce Shepard and Executive Policy Group



## APPENDIX A

### **IMPLEMENTING AFFIRMATIVE ACTION PROGRAM (POL-U1600.05)**

Policy applies to university employees

Definition: The Affirmative Action Program (AAP) shall include: ♦ equal opportunity and affirmative action policies and methods for their dissemination ♦ responsibility for implementation ♦ identification of problem areas ♦ action-oriented programs designed to recruit, employ and promote qualified members of targeted populations, to include women, minorities, people with disabilities and veterans ♦ internal audit and reporting systems.

The Affirmative Action Plan is a working document that identifies areas of underutilization in the work force, proportional to availability; analyzes personnel actions, hiring practices; and goal achievement, and serves as a basis for updating the Affirmative Action Program

1. The University Establishes an AAP and Reports the Results of its Efforts in an Affirmative Action Plan (Plan)
  - The results of the AAP shall be reported annually in an updated Plan.
  - The content of the Plan shall conform to current state and federal guidelines and will represent the university's good faith efforts to eliminate barriers to recruit and retain targeted populations for equal employment opportunity.
2. The Board of Trustees Pledges its Commitment to Affirmative Action  
The Board of Trustees delegates responsibility for promoting and enforcing the AAP to the President of the university.
3. The President Carries Out This Responsibility by:
  - A. Designating the Vice Provost for Equal Opportunity & Employment Diversity as the official responsible for preparation of the Plan and overall implementation of the AAP.
  - B. Delegating responsibility for ensuring the success of the AAP to other university employment officials, managers and supervisors.
  - C. Ensuring that the resources necessary for the implementation of this policy remain a priority in the university budget.
4. The Vice Provost for Equal Opportunity and Employment Diversity (Vice Provost) Reports to the President on Matters Regarding Affirmative Action
5. The Vice Provost has the Authority to Administer the AAP by:
  - A. Making the affirmative action policy available to all employees and the public.
  - B. Maintaining discrimination compliant procedures.
  - C. Facilitating the informal resolution of discrimination complaints.
  - D. Receiving and investigating complaints of illegal discrimination and making recommendations for solutions.
  - E. Serving as liaison between the university and the state and federal enforcement agencies regarding externally filed complaints and compliance reviews.
  - F. Keeping the university informed concerning developments in discrimination law and taking appropriate steps to assure timely applications of new regulations in all administrative or operating units of the university.
  - G. Monitoring employment recruitment processes and work climate for continual compliance with the requirements of anti-discrimination law.
  - H. Facilitating compliance with equal opportunity regulations in programs and services provided to students and the public.
  - I. Preparing the annual Plan which measures progress, identifies problem areas, and sets goals and providing the Plan to the President for review and signature.
  - J. Preparing reports, statistics, and data which delineate and quantify various aspects of the policy, and planning for internal analysis as required by federal and state agencies.
  - K. Maintaining internal and external awareness of the existence and value of the AAP.

- L. Developing and overseeing effective affirmative action/equal employment opportunity training programs.
6. Vice Presidents and Deans Are Responsible to Ensure the Success of the AAP in Their Divisions by:
- A. Participating in the development and implementation of action-oriented programs focused on underutilized groups.
  - B. Ensuring appropriate non-discrimination clause in all contracts.
  - C. Annually reviewing with the Equal Opportunity Office the effectiveness of the AAP in their respective units.
  - D. Ensuring employees participate in the university's affirmative action/equal employment opportunity training.
  - E. Ensuring affirmative actions efforts and results shall be a part of the evaluation of the performance of administrators and supervisors.
7. University Employees and Supervisors Facilitate the Affirmative Action Program  
All university employees and supervisors will, by creating and maintaining an atmosphere conducive to recruiting, hiring, promoting and retaining members of underrepresented groups, in working to reach the university's affirmative action goals.
8. University Search Committees and Hiring Authorities Will Design Equal Employment Opportunity and Affirmative Action Goals by Reflecting Them in Their Recruitment Plans  
Effective Date: June 9, 2009. Approved By: President Bruce Shepard and Executive Policy Group

***PREVENTING SEXUAL HARASSMENT (POL-U1600.04)***

Policy applies to all employees, students, volunteers, agents, groups and individuals. It also applies to organizations that use university facilities and other members of the university community to the extent provided by law.

Definition: Sexual harassment is a form of sex discrimination and is therefore prohibited by law. Sexual harassment is unwelcome sexual advances, requests for sexual favors, or other verbal or physical conduct of a sexual nature when:

- Submission to such conduct or activity is made either explicitly or implicitly or implicitly a term or condition of an individual's employment or academic progress;
- Submission to or rejection of such conduct or activity is used as the basis for employment or academic decisions affecting such individuals, or
- Such conduct or activity unreasonably interferes with an individual's work or academic performance or creates an intimidating, hostile or offensive working or learning environment.

Sexual harassment can occur between persons without regard to gender, age, appearance, or professional status.

1. The University Provides a Positive Learning and Working Environment for Student and Employees and Will Not Tolerate Sexual Harassment
2. The Vice Provost for Equal Opportunity & Employment Diversity Provides Education and Training on Sexual Harassment Prevention In accordance with state law and this policy.
  - A. The university provides on-going training about the nature and consequences of sexual harassment and procedures for handling complaints.
  - B. University employees are required to be training in the prevention and sexual harassment.
3. The University Provides an Avenue for Reporting Sexual Harassment  
Individuals who believe they have been the subject of sexual harassment are

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encouraged to report incidents to the proper authorities as outlined in PRO-U1600.02A Discrimination Compliant Procedure.

4. The Vice Provost for Equal Opportunity and Employment Diversity Investigates Allegations of Sexual Harassment and serves as the university's Title IX Coordinator  
The University takes measures to ensure a working and learning environment that is free of sexual harassment. When the university becomes aware of allegations of sexual harassment it investigates those allegations.
5. The University Takes Action Towards Violators of This Policy  
Anyone who is found to be in violation of this policy will be subject to a range of sanctions, including written reprimand, termination, or expulsion.
6. Supervisors and Others in Leadership Positions have Special Responsibilities  
Persons in supervisory and leadership roles may face personal liability if they fail to take appropriate action when they become aware of instances of sexual harassment.
7. The University Prohibits Retaliation  
The University prohibits retaliation against anyone reporting or thought to have reported sexual harassment or encouraging others to retaliate. Such retaliation will be considered independently, whether a charge or informal complaint or sexual harassment is substantiated.  
Effective Date: June 9, 2009. Approved By: President Bruce Shepard and Executive Policy Group

### **ACCOMODATING PERSONS WITH DISABILITIES (POL-U1600.03)**

Policy applies to:

- ◆ Applicants or employees who, with or without reasonable accommodation, can perform the essential functions of a position,
- ◆ Qualified students, prospective students and
- ◆ Individuals who wish to participate in university-sponsored events which are open to the public.

Authority: 42 U.S.C. §12101 et seq. (the Americans with Disabilities Act (ADA) of 1990), the ADA Amendments Act of 2008, 29 CFR §1630 (Regulations to Implement Equal Employment Provisions of the ADA), 28 CFR §35 (Nondiscrimination on the Basis of Disability in State and Local Government Services), 45 CFR 84 (Nondiscrimination on Basis of Handicap in Programs and Activities Receiving or Benefitting from Federal Financial Assistance), Section 504 of the Federal Rehabilitation Act of 1974, Chapter 49.60.040 RCW (the Washington State Law Against Discrimination), WAC 162-22 (Employment-handicapped persons), WAC 357-26 (Reasonable Accommodation), WA Executive Order 96-04 (Implementing the ADA and Superseding 93-03)

#### Definitions:

Person with a Disability means: Under 42 USC §12102, a person with a physical or mental impairment that substantially limits one or more major lifeactivities; and/or Under chapters 49.60.040 RCW and 162-22 WAC, the presence of a sensory, mental or physical impairment (temporary or permanent) that is: Medically cognizable or diagnosable, or Exists as a record or history; or Known or shown through an interactive process to exist in fact, and: Has a substantially limiting effect upon the individual's ability to perform his or her job, the individual's ability to apply or be considered for a job or the individual's access to equal benefits, privileges, or terms or conditions of employment; or The employee must have put the employer on notice of the existence of an impairment, and medical documentation must establish a reasonable likelihood that engaging in job functions without an accommodation would aggravate the impairment to the extent that it would create a substantially limiting effect.

#### Disability Status Definitions:

Impairment (federal definition): Any physiological disorder, or condition, cosmetic disfigurement, or anatomical loss affecting one or more of the following body systems: neurological, musculoskeletal, special sense organs, respiratory (including speech organs), cardiovascular, reproductive, digestive, genitor-urinary,

hemic and lymphatic, skin, and endocrine; or any mental or psychological disorder, such as mental retardation, organic brain syndrome, emotional or mental illness, and specific learning disabilities.

Impairment (state definition): Any physiological disorder, or condition, cosmetic disfigurement, or anatomical loss affecting one or more of the following body systems: neurological, musculoskeletal, special sense organs, respiratory, including speech organs, cardiovascular, reproductive, digestive, genitor-urinary, hemic and lymphatic, skin, and endocrine; or any mental developmental, traumatic, or psychological disorder, including but not limited to cognitive limitation, organic brain syndrome, emotional or mental illness, and specific learning disabilities.

Major Life Activities: Activities that include, but are not limited to, caring for oneself, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, lifting, bending, speaking, breathing, learning, reading, concentrating, thinking, communicating, and working and operation of a major bodily function, including but not limited to, functions of the immune system, normal cell growth, digestive, bowel, bladder, neurological, brain, respiratory, circulatory, endocrine, and reproductive functions.

Substantially Limits: Unable to perform a major life activity that the average person in the general population can perform or significantly restricted as to the condition, manner or duration under which you can perform a particular major life activity as compared to the condition, manner, or duration under which the average person in the general population can perform that same major life activity.

Essential Functions means the fundamental job duties of the position that the individual with the disability holds or desires. The term "essential functions" does not include the marginal functions of the position.

Qualified Employee with a Disability means an individual with a disability who meets the skill, experience, education, or other job-related requirements of the position held or desired, and who, with or without reasonable accommodation, can perform the essential functions of the job.

Qualified Student with a Disability means an enrolled student with a documented disability and completed Needs Assessment who complies with applicable university policies on student rights and responsibilities and who meets the admission requirements and technical standards of the academic program, activity, or service.

Reasonable Accommodation means a modification or adjustment to a job, work environment, policies, practices, and procedures that enables a qualified individual with a disability to enjoy equal employment or academic opportunities.

Undue Hardship means an excessively costly, extensive, substantial, or disruptive modification, or one that would fundamentally alter the nature or operation of the institution.

1. The University Provides Reasonable Accommodations
  - a) The university provides reasonable accommodation to the known physical or mental limitations of otherwise qualified individuals except where such accommodation would impose undue hardship on the institution.
  - b) The Vice Provost for Equal Opportunity and Employment Diversity, the Vice President for Business and Financial Affairs and the Vice President for Student Affairs, through their procedures, inform the campus and public of the ability to request accommodation.
2. The Vice Provost for Equal Opportunity/ADA Coordinator Provides Compliance Oversight, Advice and Consultation Regarding the ADA and Architectural Access. See ADA Access Accommodation
3. Vice President for Business and Financial Affairs is Responsible for Employment Accommodation Services
  - a) The Vice President will:
    1. Ensure the appropriate services are available to process requests for reasonable accommodation to qualified applicants and employees with disabilities.
    2. Delegate full authority for implementing these services to the Director of Human

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Resources.

- b) Qualified applicants and employees with disabilities who require an accommodation should refer to guidance on the Human Resources web page. See [www.disabilityresources.wvu.edu](http://www.disabilityresources.wvu.edu) for procedures and additional resources.

#### 4. Vice President for Student Affairs is Responsible for Student Accommodation Services

- a) The Vice President will:
  - 1. Ensure appropriate services are available to process requests for reasonable accommodation to qualified students and prospective students with disabilities.
  - 2. Delegate full authority of implementing these services to the Director of Disability Resources for Students (DRS)
- b) Qualified students and prospective students with disabilities who require an accommodation should refer to guidance on the Disability Resources for Students web page. See [www.wvu.edu/depts/drs/](http://www.wvu.edu/depts/drs/) for procedures and additional resources.

#### 5. The University Provides a Discrimination Compliant Procedure

The Vice Provost for Equal Opportunity investigates complaints for individuals who believe they have been subject to discrimination based on their disability or their request for reasonable accommodations as outlined in discrimination complaint procedure (PRO-U1600.02A).

Effective Date: June 9, 2009. Approved By: President Bruce Shepard and Executive Policy Group

# Appendix B - Sexual Misconduct Policy and Procedure

**Preamble.** Western is required to adopt policies and programs aimed at preventing and responding to allegations of sexual misconduct in accordance with the 1992 Federal Higher Education Act Amendment. Sexual misconduct has a serious impact on the quality of the educational and work experience. Western is committed to the prevention of sexual misconduct on campus and to the timely resolution of complaints.

**Policy.** It is the policy of Western Washington University to provide an environment in which students, staff, and faculty can work, live and study free from all types of sexual misconduct. The range of sexual misconduct includes sexual harassment, sexual intimidation, sexual coercion, sexual assault, and rape. The University will act to prevent and eliminate such behavior. Individuals who engage in such behavior will be subject to sanctions, including written reprimand, termination, or expulsion.

The University is committed to a comprehensive educational program to promote awareness and prevent the full range of sexual misconduct. The University will provide a range of on-campus or referral services to students, faculty, and staff who have experienced sexual misconduct. Services may include short-term personal counseling, health care assistance, and assistance in changing academic, employment, or living arrangements as appropriate. The campus community will be informed of appropriate reportage procedures for individuals who wish to bring a criminal charge, including the need to preserve physical evidence to document the situation.

The University will maintain a comprehensive response system for addressing individual cases of sexual misconduct. The system includes support and guidance services, as well as an integrated response system for reports received by the University. Those systems are referred to in the Sexual Misconduct Procedure section of this document. Recognizing that individuals involved in situations of alleged sexual misconduct may have differing perceptions, the University has established clear definitions, processes, and consequences for addressing cases.

## **Procedure.**

### *1) Seeking Advice Recommended*

Persons who believe they have been subjected to a form of sexual misconduct are encouraged to seek advice, personal counseling, and information on reporting processes as detailed below. Individuals will be informed about medical assistance, supported in reporting to appropriate law enforcement agencies and filing a complaint with the University, and notified about procedures for changing academic, employment, and living arrangements.

### *2) Services for Students*

Students who claim to have been subjected to sexual misconduct are encouraged to seek advice and assistance from the Counseling, Health and Wellness Services Center; the Office of Student Life or the Equal Opportunity Office.

### *3) Services for Employees*

Faculty, staff, and administrators who claim to have been subjected to sexual misconduct are encouraged to seek advice and assistance from the WWU Employee Assistance Program; the Equal Opportunity Office; or their health care provider.

### *4) Complaints Against Students*

Sexual misconduct complaints against students will be subject to the policies and procedures detailed in the Student Rights and Responsibility Code. That code (Chapter 516-21 WAC) may be found in the University catalog. Office of Student Life may be contacted to initiate this procedure. For incidents which occur in the residence halls, this process may also be initiated by contacting the appropriate Residence Hall Director.

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### *5) Complaints Against Employees*

Complaints against any University employees shall be subject to the University's Discrimination Complaint Procedure or relevant disciplinary procedures. The Equal Opportunity Office shall be contacted to initiate this procedure if appropriate.

### *6) Filing of Criminal Charge*

Individuals who wish to file a criminal charge related to sexual misconduct should contact the University Police or the police in the jurisdiction in which the incident occurred.

# Appendix C - Student Rights and Responsibilities Code

## **WAC 516-21-010 Introduction**

Western Washington University students enjoy the same basic rights, privileges, and freedoms granted to all members of society. At the same time, acceptance of admission to the university carries with it an obligation to fulfill certain responsibilities and expectations as a member of the Western Washington University community. As a condition of enrollment at Western, students must assume responsibility for their own actions and maintain an environment conducive to the academic success, safety, and well-being of others. In addition, they are expected to be truthful, respect the rights of others, and abide by all university policies and procedures, as well as all applicable local, state, and federal laws and regulations. All students are responsible for understanding and complying with the responsibilities and expectations set forth in this code.

The student conduct process at Western is designed to be a learning process that promotes an understanding of students' responsibilities as members of the university community. The objectives of the student conduct system, as set forth in this code, are twofold: to ensure that students act in a manner consistent with high standards of scholarship and behavior, and to maintain the safety and well-being of all members of the university community.

## **WAC 516-21-020 Definitions**

As used in this chapter, the following words and phrases mean:

- (1) **Appeals Board.** The student conduct appeals board.
- (2) **Business Day.** Any day, Monday through Friday (excluding holidays), during which university offices are open.
- (3) **Catalog.** The Western Washington University General Catalog.
- (4) **Code.** The Student Rights and Responsibilities Code.
- (5) **Conduct Hold/Judicial Hold.** A block placed on a student's official university record at the request of the Conduct Officer or Dean of Students. A conduct or judicial hold prohibits a student from registering for classes, requesting an official transcript, or receiving a degree from the university until the hold has been removed.
- (6) **Conduct Officer.** The student Conduct Officer or his/her authorized designee.
- (7) **Dean of Students.** The Dean of Students or his/her authorized designee.
- (8) **Guest.** Any person who is not a member of the university community, who is on university property or attending an official university function at the invitation and/or hosting of a student.
- (9) **Member of the University Community.** Any person who is a student, university official, or who is otherwise employed or contracted by the university. A person's status in a particular situation shall be determined by the Dean of Students.
- (10) **Official University Function.** Any activity, on or off campus, that is initiated, sponsored, or supervised by any entity of Western Washington University.
- (11) **Preponderance of Evidence.** Defined as "more likely than not," the standard of responsibility that is used



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(12) **Student.** Any person who:

- a. Has been formally admitted to the university;
- b. Is enrolled in one or more classes at the university, including non-matriculated international students attending language institutes or foreign study programs;
- c. Is participating in a certificate, degree, distance learning, or professional enrichment program, through Extended Education;
- d. Is participating in a university-sponsored study abroad program;
- e. Was enrolled in a prior quarter or summer session at the university and is eligible to continue enrollment in the quarter or summer session that immediately follows; or
- f. Withdrew from the university after an alleged violation of the code, for conduct that occurred while they were enrolled in or participating in a program offered by the university.

(13) **University.** Western Washington University and all associated programs, including those offered on-line and/or at off-campus program sites.

(14) **University Official.** Any person employed or contracted by the university, who is performing assigned teaching, administrative, or professional responsibilities. University officials may be full- or part-time, and may include student staff members.

(15) **University Property.** All land, buildings, facilities, and other property that is owned, used, leased, or controlled by Western Washington University. University property also includes adjacent streets and sidewalks.

(16) **WAC.** An abbreviation for the Washington Administrative Code.

### **WAC 516-21-030 Jurisdiction**

(1) The Student Rights and Responsibilities Code applies to all conduct that occurs on university property or in connection with any official university function.

(2) Western Washington University does not act as a policing agent for students when they are off campus. However, the university reserves the right to take action if a student's conduct is determined to adversely affect a substantial university interest. Student conduct that occurs off campus may be subject to the Student Rights and Responsibilities Code when it:

- a. Adversely affects the safety or well-being of any member of the university community; or
- b. Involves academic work or any records, documents, or identifications of the university.

In determining whether to exercise jurisdiction over such conduct, the student Conduct Officer shall consider the seriousness of the alleged offense, the risk of harm involved, and whether the alleged victim(s) are members of the university community. Any question of interpretation or application of jurisdiction shall be referred to the Dean of Students for final determination.

(3) Students are responsible for their conduct from the time they have confirmed their enrollment at Western through the awarding of their degree. This includes conduct that occurs before classes begin, after classes end, and during periods between actual terms of enrollment. Students who are found to be in violation of the code may be subject to sanctions under the code.

(4) A student with a pending conduct violation may not avoid the conduct process by withdrawing from the university. In these circumstances, a conduct hold will be placed on the student's official record, preventing them from registering for classes, requesting an official transcript, or receiving a degree from the university. This hold will remain in place until the student has met with the Conduct Officer to discuss the alleged conduct violation(s).

(5) Sanctions against student organizations are decided by procedures established by the university administrative unit governing that organization's recognition. Conduct proceedings against individual member(s) of a student organization can be initiated under this code, independent of any departmental action(s) taken against the student organization.

**WAC 516-21-040 Student Responsibility for Guests**

(1) Guests and visitors on university property or at official university functions are expected to comply with all university policies and procedures, as well as all applicable local, state, and federal laws and regulations.

(2) Students who invite guests into their campus residence hall or apartment, or to official university functions open only to Western students, are responsible for the behavior of their guests. As a result, a student may be held responsible for any alleged violation(s) of the code committed by their guests. See also *WAC 516-24-001 Conduct of Campus Guests and Visitors*.

**WAC 516-21-050 Academic Dishonesty**

The university's policy and procedures regarding academic dishonesty are addressed in the *Academic Honesty Policy and Procedure*. As noted in the policy, academic dishonesty at Western Washington University is a serious infraction dealt with severely. For a list of actions that constitute academic dishonesty, refer to the academic honesty policy and procedure in the catalog.

**WAC 516-21-060 Conduct that Threatens Health or Safety**

Conduct that threatens the health or safety of any person, including oneself, is a violation of the code. Conduct that threatens health or safety includes, but is not limited to:

- (1) Intoxication or impairment through the use of alcohol or other substances to the point that a student is unable to exercise care for his/her own safety or well-being;
- (2) Any threat, stated or implied, to the health, safety, or well-being of self or others;
- (3) Any contact or communication of a threatening nature that intimidates, harasses, or causes a person to fear for their safety or well-being; or
- (4) Incidents involving the use or display of a weapon or destructive device likely to cause bodily injury and/or damage to property.

**WAC 516-21-070 Disruptive Behavior**

Behavior that substantially disrupts, disturbs, or interferes with the ability of students to learn or university officials to perform their assigned duties is a violation of the code. Disruptive behavior includes, but is not limited to:

- (1) Demonstrations or protests that substantially disrupt, disturb, or interfere with:
  - a. Classroom activities or other educational pursuits;
  - b. Official university activities or functions including, but not limited to, ceremonies, meetings, office functions, performances, or athletic events;
  - c. Pedestrian or vehicular traffic; or
  - d. The preservation and protection of university property and/or the personal property of members of the university community.
- (2) Any other behavior that substantially disrupts, disturbs, or interferes with:
  - a. Classroom activities or other educational pursuits;

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- b. Official university activities or functions including, but not limited to, ceremonies, meetings, office functions, performances, or athletic events;
- c. Pedestrian or vehicular traffic; or
- d. The preservation and protection of university property and/or the personal property of members of the university community.

### **WAC 516-21-080 Failure to Comply**

Failure to comply with the instructions or directives of any university official or other public official acting in performance of their duties, or failure to identify oneself when asked to do so by a university official or other public official acting in performance of their duties, is a violation of the code.

### **WAC 516-21-090 False Information**

Providing or creating false information is a violation of the code. False information includes, but is not limited to:

- (1) Forging, altering, mutilating, or destroying any university document or record, or entering false information into such documents or records;
- (2) Possessing or presenting as authentic any falsified document, record, or identification;
- (3) Intentionally making false accusations or charges against another member of the university community; or
- (4) Knowingly providing false information or statements to any university official or other public official acting in performance of their duties.

### **WAC 516-21-100 Fire Safety and False Alarms**

Tampering with, altering, or disabling fire safety equipment, including emergency call devices, fire alarms, fire exits, fire extinguishers, smoke/heat detectors, or sprinkler systems; intentionally activating a fire alarm; making a false report of a fire or other emergency; or refusing to leave a building when a fire alarm sounds or when directed to by a university official or by emergency personnel are violations of the code.

### **WAC 516-21-110 Harassment**

Harassment – defined as any conduct that is sufficiently severe, pervasive, or persistent to have the purpose or effect of interfering with a member of the university community's ability to work, study, or participate in their regular activities – is a violation of the code. Examples of harassment include, but are not limited to:

- (1) Engaging in unwanted contact or communication, including calls, voice messages, electronic mail, text messages, social media posts or messages, written letters, unwanted gifts, or face-to-face contact with a member of the university community;
- (2) Repeatedly following a member of the university community; waiting outside their residence, school, or place of employment; or placing them under any form of surveillance; or
- (3) Engaging in any form of behavior that is meant to threaten or intimidate a member of the university community based on their membership in a protected class, including race, color, creed, religion, national origin, sex, age, disability, marital status, genetic information, status as a veteran, and/or sexual orientation.

### **WAC 516-21-120 Hazing**

Hazing – defined as any act that, as an explicit or implicit condition for initiation or admission into, affiliation with, or continued membership in a group or organization, endangers the health, safety, or well-being of any

member of the university community – is a violation of the code. Examples of hazing include, but are not limited to:

- (1) Requiring the consumption of any food, alcohol, drug, or other substance;
- (2) Requiring forced participation in physical activities, including calisthenics, exercise, or other games or activities that entail physical exertion;
- (3) Requiring exposure to weather elements or to other physically or emotionally uncomfortable situations, including sleep deprivation, confinement in small spaces, physical bondage, and/or taking a student to an outlying area and dropping them off;
- (4) Requiring conduct that can be reasonably expected to embarrass another, including the performance of public stunts or activities such as scavenger hunts; or
- (5) Requiring anything that would be illegal under city, state, or federal law, or in violation of any university policies or procedures, including the code.

**WAC 516-21-130 *Illegal Possession and/or Use of Alcohol***

Illegally possessing, using, distributing, selling, or being under the influence of alcohol while on university property or at an official university function is a violation of the code. This includes, but is not limited to:

- (1) Possession or consumption of alcohol by anyone under the age of twenty-one;
- (2) Providing alcohol to anyone under the age of twenty-one; or
- (3) Driving on university property while under the influence of alcohol.
- (4) Public intoxication by persons of any age. See also *Policy Concerning Alcohol and Other Drugs* in the catalog.

**WAC 516-21-140 *Illegal Possession and/or Use of Drugs***

Illegally possessing, using, manufacturing, cultivating, packaging, distributing, selling, or providing a controlled or illegal substance, or being under the influence of a controlled or illegal substance while on university property or at an official university function, is a violation of the code. This includes, but is not limited to:

- (1) Possession of drug paraphernalia;
- (2) Driving on university property while under the influence of a controlled or illegal substance; or
- (3) Intentionally misusing or distributing prescription drugs. See also *Policy Concerning Alcohol and Other Drugs* in the catalog.

**WAC 516-21-150 *Interfering with the Conduct Process***

Interfering with the conduct process is a violation of the code. This includes, but is not limited to:

- (1) Giving a false report or claim;
- (2) Attempting to influence the impartiality of witnesses or appeals board member(s);
- (3) Participating in or encouraging retribution against complainants or witnesses;

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- (4) Threatening, harassing, or intimidating complainants or witnesses;
- (5) Disrupting or interfering with the orderly conduct of a hearing or meeting; or
- (6) Failing to comply with any sanction(s) imposed as the result of a code violation.

### **WAC 516-21-160 Misuse of Computers, Electronic Data or Communication Systems**

Misuse of computers, electronic data, or communication systems is a violation of the code. This includes, but is not limited to:

- (1) Unauthorized entry into a file, web page, e-mail account, or on-line profile to use, download, read, transfer, or change the contents, or for any other purpose;
- (2) Unauthorized use of another person's university-issued identification and password;
- (3) The use of campus computing facilities, networks (including wireless networks), equipment, or services to interfere with the normal operation of the university computing system or the work of any member of the university community;
- (4) The use of campus computing facilities, networks (including wireless networks), equipment, or services to "cyber stalk" another person or to send obscene, abusive or harassing messages;
- (5) The use of campus computing facilities, networks (including wireless networks), equipment, or services to illegally copy, distribute, download, or upload information (including movies, music, or other digital content) from the internet or any electronic source;
- (6) The use of campus computing facilities, networks (including wireless networks), equipment, or services to illegally copy, reproduce, or distribute licensed software;
- (7) Attempting to modify system facilities or networks, including the introduction of electronic vandalism (e.g., viruses, worms, or other disruptive/ destructive programs) into university computing resources or those connected to it by the network; or
- (8) The use of campus computing facilities, networks (including wireless networks), equipment, or services for personal profit or for any use other than authorized university business.  
Students are also responsible for reading and complying with all provisions set forth in the *Western Washington University Policy for Responsible Computing*, the *User Agreement for WWU Network and Computing Resources*, and the *Using Copyrighted Materials Policy*.

### **WAC 516-21-170 Obstructing Police and Safety Personnel**

Obstructing, interfering with, or delaying police or other fire, safety, or emergency personnel is a violation of the code.

### **WAC 516-21-180 Sexual Misconduct**

- (1) Sexual misconduct, defined as any unwelcome behavior of a sexual nature that is committed without consent or by force, intimidation, or coercion, is a violation of the code. Sexual misconduct includes, but is not limited to:
  - a. Sexual harassment (e.g., engaging in unwelcome verbal, written, or physical behavior of a sexual nature that is directed at another person or group, based on that person or group's sex, gender, or perceived sex or gender);

- b. Sexual intimidation (e.g., engaging in any behavior, either verbal or nonverbal, that has the effect of subjecting another person to humiliation, embarrassment, or discomfort because of their sex, gender, or perceived sex or gender);
- c. Sexual coercion (e.g., engaging in the use of pressure, alcohol or drugs, or force to compel or persuade another person to engage in sexual activity);
- d. Sexual exploitation (e.g., engaging in voyeurism or peeping, distributing intimate or sexual information about another person without that person's consent, knowingly transmitting an STD or HIV to another person, or engaging in any behavior that takes sexual advantage of another person without that person's consent); of
- e. Sexual assault (e.g., engaging in actual or attempted sexual touching, genital-oral contact, penetration, and/or intercourse without consent).

(2) Consent for all sexual activity must be given free of force, threat, intimidation, or coercion. At the time of the sexual activity, actual words or conduct demonstrating freely given agreement must occur; silence or passivity do not imply consent. Activity of a sexual nature is considered nonconsensual when:

- a. An individual is asleep, unconscious, or otherwise physically unable to communicate his or her willingness or unwillingness to engage in sexual activity;
- b. An individual lacks the ability, at the time of sexual activity, to be able to understand the nature or consequences of the activity, whether due to illness; impairment; the influence of alcohol, drugs, or medication; or another cause; or
- c. An individual is not of legal age to give consent.

(3) Sexual misconduct represents a range of behavior; it can occur between strangers or acquaintances, including individuals involved in an intimate or sexual relationship. Sexual misconduct can also be committed by individuals of any gender and can occur between people of the same or different sex. See also *Sexual Misconduct Policy and Procedure* in the catalog.

#### **WAC 516-21-190 Student Violation of the Law**

Students are expected to abide by all local, state, and federal laws while on campus or at official university functions. Failure to comply with these laws is a violation of the code.

While Western does not act as a policing agent for students when they are off campus, the university reserves the right to take action if a student's conduct is determined to adversely affect a substantial university interest. See also *WAC 516-21-030 Jurisdiction*.

Proceedings under the code may be carried out prior to, simultaneously, or following civil or criminal proceedings in the courts. Since the standard of proof under the code (preponderance of evidence) differs from that of criminal law, decisions made through the student conduct process are not subject to challenge on the grounds that criminal charges involving the same incident have been dismissed or reduced by a court of law.

#### **WAC 516-21-200 Theft or Intentional Damage of Property**

Theft or intentional damage of property is a violation of the code. Theft includes, but is not limited to, attempted or actual theft of university property or services or the property or services of any member of the university community, visitors, or guests. It is also prohibited to possess stolen property or to intentionally damage, destroy, or vandalize the property of the university or others.

#### **WAC 516-21-210 Trespassing**

Trespassing is a violation of the code. Trespassing includes, but is not limited to:

- (1) Unauthorized entry into, occupation, or use of any university-owned or controlled property, equipment, or facilities;

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(2) Unauthorized entry into, occupation, or use of any restricted areas of the campus, including research areas and utility tunnels;

(3) Unauthorized possession, duplication, or use of keys, including cards or alphanumeric pass-codes, to any university-owned or controlled property, equipment, or facilities; or

(4) Remaining in or on university-owned or controlled property after permission to remain has been revoked by any university official, including university police.

### **WAC 516-21-220 Weapons and Destructive Devices**

Possession, use, unauthorized storage, or manufacture of firearms, ammunition, explosives, or other weapons or destructive devices capable of causing bodily injury or damage to property, on university property or at official university functions, is a violation of the code. Weapons and destructive devices include, but are not limited to:

(1) Firearms of any kind, including BB, pellet, paintball, and airsoft guns;

(2) Martial arts weapons of any kind, including nunchucks, swords, or throwing stars;

(3) Fireworks of any kind, including firecrackers, cherry bombs, or homemade explosives;

(4) Projectile devices of any kind, including catapults or slingshots;

(5) Any knife with a blade longer than three inches (excluding kitchen utensils); or

(6) Any object that can be used as a weapon to cause bodily injury or damage to property.

See also *WAC 516-52-020 Firearms and Dangerous Weapons*.

### **WAC 516-21-230 Sanctions**

Sanctions serve many purposes including, but not limited to, educating students about the seriousness of their actions; reinforcing the high standards of scholarship and behavior expected of Western students; promoting student development; and maintaining the safety and well-being of members of the university community.

When a student admits responsibility or is found in violation of the code, the Conduct Officer or Dean of Students may impose one or more of the sanctions listed in this section. This list of sanctions is not meant to be exclusive. Other sanctions, designed or intended to enhance the educational value of conduct proceedings, may be applied in a given case.

(1) **Warning.** A formal written notice to the student that a violation of the code has occurred, and that further violations may result in additional sanctions under the code.

(2) **Conditional Status.** A probationary status imposed for a specific period of time, during which the student must demonstrate conduct that conforms to university standards. Conditions restricting the student's privileges or eligibility for activities may be imposed. Violations of any conditions specified in the notice of conditional status or violations of any other university policies or regulations during the period of the sanction may result in additional sanctions under the code.

(3) **Loss of Privileges.** A student may be denied specific privileges (i.e., participation in specific activities, restriction from specific areas of campus, etc.) on a temporary or permanent basis. Violations of any conditions specified in the notice of loss of privileges or violations of any other university policies or regulations during the period of the sanction may result in additional sanctions under the code.

(4) **Restriction from Contacting Others ("no contact" order).** A student may be restricted from direct or indirect physical, verbal, or electronic contact with another person and/or group. Indirect or direct contact made with another person or group while a "no contact" order is in place may result in additional sanctions under the code.

(5) **Educational Activities.** A student may be required to engage in educational activities related to violation(s) of the code. Such activities may include, but are not limited to required attendance at educational programs, community service, conducting research projects, writing assignments, and/or meeting with campus officials.

(6) **Assessment, Counseling, or Treatment Programs.** A student may be required to participate in an assessment, counseling, and/or treatment program (at the student's expense), to address substance abuse, anger issues, or other issues or types of behaviors that pose a threat to their safety or well-being, or the safety or well-being of others.

(7) **Restitution.** A student may be required to provide compensation for loss, damage, or injury resulting from a violation of the code. Restitution may take the form of monetary or material replacement or appropriate service to repair or otherwise compensate for the loss, damage, and/or injury caused.

(8) **Parental Notification.** Parents may be notified of conduct findings when a student under the age of twenty-one is found responsible for violations involving alcohol and/or drugs. When possible, students whose parents are to be notified will be informed before such notification occurs and given an opportunity to initiate contact with their parents.

(9) **Campus Residence Hall or Apartment Relocation.** A student's on-campus living arrangements may be transferred to another residence hall or apartment.

(10) **Termination of University Residences Agreement.** A student may be removed from their campus residence hall or apartment and their housing agreement terminated.

(11) **Suspension from the University.** A student may be removed from the university for a designated period of time, after which the student will be eligible to return. While suspended, the student is trespassing from all university facilities and prohibited from participating in official university functions. Specific conditions for readmission to the university may be imposed (e.g., counseling, completion of substance abuse treatment, etc.).

(12) **Deferred Suspension.** A student may receive a notice of deferred suspension from the university, with a provision that they are allowed to remain enrolled contingent on meeting specific conditions. Failure to meet any condition(s) specified in the notice of deferred suspension will result in immediate suspension from the university.

(13) **Expulsion from the University.** A student may be permanently separated from the university. A student who has been expelled is not eligible for readmission.

#### **WAC 516-21-240 Student Conduct System**

(1) The Vice President for Enrollment and Student Services is responsible for administration of the code. Supervision of the code has been delegated by the Vice President to the Dean of Students.

(2) The Conduct Officer shall be appointed and supervised by the Dean of Students or his/her authorized designee. The Conduct Officer has the authority to adjudicate and administer sanctions for violations of the code.



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(3) A six-member appeals board shall be appointed at the beginning of each fall term to consider reviews of the Conduct Officer's findings and decision. The appeals board shall include:

- a. Two faculty members, appointed by the Faculty Senate;
- b. Three student members, appointed by the Associated Students Board of Directors; and
- c. One staff member from the Division of Enrollment and Student Services, nominated by the Dean of Students and confirmed by the Vice President for Enrollment and Student Services.

(4) Alternates will be identified for each area represented on the appeals board. Student appointments are for one academic year. Faculty and staff appointments are for two-year staggered terms.

(5) All appointments to the committee shall be initiated during the first full month of the fall term. Should a request for a review of the Conduct Officer's findings and decision come forward during the summer term or during other break periods, the review will be heard by the Dean of Students or by an interim appeals board appointed by the Dean of Students.

(6) Both the appeals board and the Dean of Students have full authority to render a decision under the code. All review decisions are final.

### ***WAC 516-21-250 Student Rights in the Conduct Process***

All alleged violations of the code will be resolved through the student conduct process, respecting fairness and due process for all involved parties.

(1) Students accused of violating the code have certain rights in the conduct process. These include the right to:

- a. Receive written notification of the section(s) of the code they are alleged to have violated, including a clear description of the basis for the charge(s), delivered via e-mail to the student's official @students.wvu.edu account;
- b. Meet with the Conduct Officer to discuss the section(s) of the code they are alleged to have violated and present a response to such allegations;
- c. Provide evidence on their own behalf, including the names or written statements of individuals who can offer information regarding the incident in question;
- d. Be accompanied through the conduct process by a person of their choice (this person may give advice to the student, but may not directly address the Conduct Officer, any member of the appeals board, or the Dean of Students);
- e. Refuse to answer any question asked of them and have no inference of guilt drawn from such refusal;
- f. Receive written notification of the Conduct Officer's findings and decision, delivered via e-mail to the student's official @students.wvu.edu account, within seven business days of the date of the meeting (or, if multiple meetings are necessary to determine responsibility or multiple individuals are involved and information presented by each is deemed necessary to determine responsibility, within seven business days of the date of the final meeting for the specific incident);
- g. Request a review of the Conduct Officer's findings and decision by the appeals board or Dean of Students, as described in *WAC 516-21-280 Basis for Review*; and
- h. Waive any of the rights contained in this section.

(2) Individuals who have filed a complaint or are the victim of an alleged violation of the code have certain rights in the conduct process. These include the right to:

- a. Submit a written account of the alleged violation(s);
- b. Be advised of the date, time, and location of the hearing;
- c. Provide evidence on their own behalf, including the names or written statements of individuals who can offer information regarding the incident in question;

- d. Be accompanied through the conduct process by a person of their choice (this person may give advice to the student, but may not directly address the Conduct Officer, any member of the appeals board, or the Dean of Students);
- e. Be free of any form of retaliation and report any retaliation that occurs for further action;
- f. Have past unrelated behavior excluded from the investigation or hearing; and
- g. Submit an oral or written impact statement to the Conduct Officer, appeals board, or Dean of Students, for consideration during the sanctioning phase of the conduct process, if the charged student is found responsible.

(3) For incidents involving violence or sexual violence, including sexual harassment, misconduct, and/or assault, victims shall have the following additional rights:

- a. To be notified of the availability of counseling, assistance, and support resources, both on campus and in the surrounding community;
- b. To request and be granted a "no contact" order against the accused student(s);
- c. To receive written notification of the Conduct Officer's findings and decision delivered via e-mail to the student's official @students.wvu.edu account, within seven business days of the date of the meeting (or, if multiple meetings are necessary to determine responsibility or multiple individuals are involved and information presented by each is deemed necessary to determine responsibility, within seven business days of the date of the final meeting for the specific incident); and
- d. To request a review of the Conduct Officer's findings and decision by the appeals board or Dean of Students, as described in *WAC 516-21-280 Basis for Review*.

***WAC 516-21-260 Procedures for Immediate Interim Suspension***

In consultation with university officials, the Dean of Students may suspend a student from the university on an immediate interim basis, pending disciplinary or criminal proceedings or a medical evaluation.

(1) An interim suspension may only be imposed in the following circumstances:

- a. The student poses a threat to his/her own safety or well-being;
- b. The student poses a threat to the safety or well-being of other members of the university community;
- c. The student poses a threat to university property, is disrupting, or interfering with the normal operations of the university; or
- d. The student is alleged to have committed a serious violation of local, state, or federal law.

(2) During the interim suspension, a student may be denied access to university activities and privileges, including access to classes, university property, and/or campus residence halls and apartments.

(3) A student suspended from the university on an immediate interim basis shall be notified in writing of the terms of the interim suspension. The notice, which shall be delivered both via e-mail to the student's official @students.wvu.edu account and via certified mail to the student's local address on file, shall include the stated violation(s), the circumstances and terms of the interim suspension, and the time, date and location of a meeting to discuss the interim suspension with the Dean of Students.

(4) The interim suspension meeting shall occur no less than three business days and no more than seven business days from the date that the notification is sent. The student may elect to waive the three-day notice if an earlier date is mutually agreed upon. The purpose of the interim suspension meeting is for the student to have an opportunity to demonstrate to the Dean of Students why the terms specified in the interim suspension notice should not continue.

(5) Cases of interim suspension are given priority and will be expedited through the student conduct process. The interim suspension will remain in effect until a final decision has been made on the pending code

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violation(s) or until the Dean of Students determines that the reasons for imposing the interim suspension no longer exist or are not supported by available evidence.

### **WAC 516-21-270 Proceedings for Violations of the Code**

(1) Any member of the university community may file a complaint against a student or a student organization, alleging a violation of the code. All complaints should be provided in writing to the Conduct Officer or Dean of Students and include a statement of the alleged misconduct.

(2) The Conduct Officer will conduct a preliminary investigation. If, in the Conduct Officer's judgment, there is insufficient basis to consider a charge, the individual(s) initiating the complaint will be informed. If there is sufficient basis to consider a charge, the Conduct Officer shall:

- a. Provide the accused student with a written notice of the charge(s), delivered via e-mail to the student's official @students.wvu.edu account. This notice shall include a clear description of the nature and date of the complaint and the specific code section(s) the student is alleged to have violated;
- b. Provide the accused student with a copy of the code as well as information on the availability of procedural advice regarding the code; and
- c. Provide the accused student with written notice to contact the Dean of Students' office immediately upon receipt of the charge letter to schedule a conduct meeting. This meeting should occur no less than three business days and no more than seven business days from the date that the notification is sent. The student may elect to waive the three-day notice if an earlier date is mutually agreed upon.

(3) During the meeting with the accused student, the Conduct Officer will determine, based on a preponderance of evidence, whether it is more likely than not that a violation of the code has occurred. If a student fails to meet with the Conduct Officer after receiving proper notification, a decision on the allegation(s) may be rendered in the student's absence.

(4) Within seven business days of the meeting, the Conduct Officer shall notify the student in writing of the findings and decision, including any imposed sanctions. This notification will be delivered via e-mail to the student's official @students.wvu.edu account and will include a statement of the student's option for a review of the Conduct Officer's findings and decision by the appeals board or the Dean of Students.

(5) If multiple meetings are required to determine responsibility, the findings and decision letter will be sent via e-mail to the student's official @students.wvu.edu account no later than seven business days after the final meeting for the specific incident.

(6) If multiple individuals are involved in the incident and the information presented by each student is deemed necessary to determine responsibility, individual findings and decision letters will be sent via e-mail to the student's official @students.wvu.edu account no later than seven business days after the final meeting for the specific incident.

(7) If both parties agree to mediate a complaint and the Conduct Officer agrees, mediation may be substituted for a conduct meeting. If mediation is unsuccessful, the original complaint will be considered and decided upon by the Conduct Officer. Mediation may not be substituted for a conduct meeting in cases involving violence or sexual violence, including sexual harassment, misconduct, or assault.

### **WAC 516-21-280 Basis for Review.**

(1) A student found in violation of the code may request a review of the Conduct Officer's findings and decision by either the appeals board or the Dean of Students. A review may be requested for the following reasons only:

- a. The original meeting was not conducted in conformity with prescribed procedures;
- b. The Conduct Officer misinterpreted the code;

- c. The sanctions imposed are disproportionate to the violation(s) committed; and
- d. The decision reached did not properly consider the information presented.

(2) For incidents involving violence or sexual violence, including sexual harassment, misconduct or assault, victims may request a review of the Conduct Officer's findings and decision by either the appeals board or the Dean of Students. A review may be requested for the following reasons only:

- a. The original meeting was not conducted in conformity with prescribed procedures;
- b. The Conduct Officer misinterpreted the code;
- c. The sanctions imposed are disproportionate to the violation(s) committed; and
- d. The decision reached did not properly consider the information presented.

(3) The request for review must be submitted in writing to the Dean of Students within seven business days of receipt of the Conduct Officer's written notice of findings and decision (which shall be delivered via e-mail to the student's official @students.wvu.edu account). The request must state, as clearly and concisely as possible, the basis for the review and specify whether the student wishes to have their review considered by the appeals board or the Dean of Students.

(4) Upon receipt of the written request for review, the Dean of Students will determine whether the request meets one or more of the criteria specified for reviews of the Conduct Officer's findings and decision. If it does, the review hearing will be scheduled. If it does not, the party requesting the review will be notified in writing and the request will be denied.

(5) For incidents involving violence or sexual violence, including sexual harassment, misconduct or assault, both the student found in violation of the code and the victim will be notified in writing regarding the outcome of the written request for review.

(6) No sanction will begin while a review is pending, except as provided in *WAC 516-21-260, Procedures for Immediate Interim Suspension*. Temporary relocation of a student to alternative housing and/or restrictions between affected parties may be enforced during an appeal.

#### **WAC 516-21-290 Review Procedures**

(1) Upon acceptance of a request for review, the Dean of Students shall notify the student (or, for incidents involving violence or sexual violence, both the student and the victim) in writing of the:

- a. Section(s) of the code the student was found to have violated;
- b. Findings and decision of the Conduct Officer;
- c. Time, date, and location of the review hearing; and
- d. Location of the code, should they wish to view or download a copy.

(2) The review hearing shall be held no less than three business days and no more than seven business days from the date of notification. The student may elect to waive the three-day notice if an earlier date is mutually agreed upon. If the student fails to appear at the hearing, the appeals board or the Dean of Students may proceed with the review, based upon consideration of all available information, or may dismiss the request for review.

(3) During the review hearing:

- a. The chair of the appeals board or Dean of Students may ask any person with relevant information to speak or provide a written statement regarding the alleged violation.
- b. The student found in violation of the code may ask any person with relevant information to speak or provide a written statement regarding the alleged violation.
- c. The chair of the appeals board or the Dean of Students may limit or exclude information that is considered to be irrelevant, immaterial, or repetitious.

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- d. Five members shall constitute a quorum of the appeals board. Actions by the appeals board require agreement by a majority of members present at the time of the hearing.
- e. Any member of the appeals board that is unable to render an impartial decision in a particular case shall excuse themselves from the appeals board's deliberations in advance and may be replaced by an alternate.
- f. The appeals board or the Dean of Students may either confirm, reverse, or modify the Conduct Officer's findings and decision.

(4) New substantive information that was not presented at the time of the original conduct meeting will not be considered during the review. When new substantive information is present prior to or during the review hearing and such evidence could impact the original decision, the allegation(s) will be reheard by the Conduct Officer.

(5) The chair of the appeals board or the Dean of Students will render a decision regarding the review within seven business days of the hearing and notify the student (or, for incidents involving violence or sexual violence, both the student and the victim) in writing of their findings and decision. All review decisions are final.

### ***WAC 516-21-300 Deviations from Established Procedures***

Deviations from the timelines set forth in this code may be granted by the Dean of Students, upon request, for good cause.

### ***WAC 516-21-310 Confidentiality of Conduct Proceedings and Records***

(1) The confidentiality of all conduct proceedings and records will be maintained in compliance with the student records policy, as well as all applicable state and federal laws. Conduct records prepared by the Conduct Officer, the appeals board, and/or the Dean of Students:

- a. Will be held in the Dean of Students Office for six years, except in cases of suspension, interim suspension, or expulsion, which are permanent records; and
- b. Will not be shared with any member of the public, except upon the informed written consent of the student(s) involved or as stated in the student records policy.

(2) The Conduct Officer's findings may be shared with the victim, as required by law, in cases involving violence or sexual violence, including sexual harassment, misconduct or assault. The disciplinary findings may also be shared with university officials involved in the completion or supervision of the sanction and/or the student. See also chapter 516-26 WAC *Student Records*.

### ***WAC 516-21-320 Relationship of the Code to University Residences***

(1) University residents are responsible for adjudicating most alleged violations of the code that are committed by students living in campus residence halls and apartments.

(2) The Dean of Students has the authority to designate which area will consider an alleged violation of the code, or whether the alleged violation will be coadjudicated by University Residences and the Conduct Officer. General referral of conduct cases will be made by consensus between University Residences and the Conduct Officer.

(3) Certain cases shall be referred by University Residences to the Conduct Officer or coadjudicated by both areas. These include, but are not limited to, cases involving:

- a. Alleged acts or threats of physical violence or sexual misconduct;
- b. Alleged violations involving the distribution or sale of drugs or other controlled substances;
- c. Alleged violations by nonresidential students while in campus residence halls or apartments or at University Residences' sponsored programs, events, or activities;

- d. Alleged violations that occur near the end of the term or after a residential student's contract with University Residences has ended;
- e. Alleged violations involving the misuse of computers, electronic data and/or communication systems, particularly when the victims of the alleged conduct are nonresidential students (e.g., sending unsolicited mass e-mails, copyright violations); or
- f. Alleged violations severe enough to result in eviction from campus residence halls or apartments and/or suspension or expulsion from the university.

***WAC 516-21-330 Interpretation of the Code***

Any question of interpretation or application of the code shall be referred to the Dean of Students for final determination.

***WAC 516-21-340 Revision of the Code***

(1) The code shall be reviewed every five years or more often, if needed, by the committee on student rights and responsibilities. The committee on student rights and responsibilities shall include:

- a. Five students, including at least one graduate student. Three students shall be appointed by the Associated Students Board of Directors and two shall be appointed by the Residence Hall Association;
- b. One faculty member, appointed by the Faculty Senate;
- c. One staff member from the Division of Enrollment and Student Services, appointed by the Dean of Students;
- d. One staff member from the Department of Public Safety, appointed by the Director of Public Safety;
- e. One staff member from University Residences, appointed by the Director of University Residences;  
and
- f. The Conduct Officer.

(2) Recommendations of the committee on student rights and responsibilities shall be made to the Vice President for Enrollment and Student Services for submission to and consideration by the President's Cabinet. Prior to adoption of the code, all proposed modifications shall be reviewed by the Office of the Assistant Attorney General at Western Washington University for consistency with university policies and the law. Final authority for changes to the code rests with the Western Washington University Board of Trustees.

***WAC 516-21-350 Referenced Policies and Regulations in the Code***

Policies or regulations referenced in the code are available, upon request, in the Dean of Students' office.

# Appendix D - Academic Honesty Policy and Procedure

## 1. Policy

All Western Washington University students have an obligation to fulfill the responsibilities of their particular roles as members of an academic community. Honesty is essential to learning. Without it, fair evaluation for all is impossible. Academic integrity is demanded, and academic dishonesty at Western Washington University is a serious infraction dealt with severely. No student shall claim as his or her own, the achievements, work or arguments of others, nor shall he or she be a party to such claims. It is the instructor's responsibility to confront a student and to take appropriate action if such academic dishonesty, in the instructor's judgment, has occurred.

For help and guidance with the academic honesty procedures, students and faculty should contact the Secretary to the Academic Honesty Board at [AcademicHonestyBoard@wwu.edu](mailto:AcademicHonestyBoard@wwu.edu) or (360) 650-3480. The Student Life Office does not participate in the process, but can direct students to the appropriate office, and can be reached at [student.life@wwu.edu](mailto:student.life@wwu.edu) for additional support.

Students who do not meet the deadlines given in the procedures shall be deemed to have waived their right to appeal. If any officer of the University or the Academic Honesty Board fails to meet the deadlines or procedures established in this policy, then the student or faculty member may appeal to the next level in the process based on procedural grounds. The deadlines are set to provide a rapid resolution of the incident. However, unforeseen circumstances such as illness or absence from the campus may result in an extension of a deadline. Such extensions shall be recorded in writing by the unit head (the Chair or Director of the department where the faculty member resides), or the Dean of the appropriate college, or secretary to the Academic Honesty Board, as appropriate. If the end of fall or winter quarter is reached during the steps of the academic honesty procedure, the remaining parts of the process will be considered at the start of the next academic quarter. If an appeal has not moved all the way through the process before the end of spring quarter, and if all parties are not available and willing to proceed during the summer, then the clock "stops" until the start of fall term. An effort will be made to resolve the issues as soon as possible when there are extenuating circumstances (e.g., a student is graduating).

## 2. Academic Dishonesty

Academic dishonesty is not qualitatively different from other types of dishonesty. It consists of misrepresentation by deception or by other fraudulent means. Academic dishonesty compromises the instructor's ability to fairly evaluate any student's work or achievement. It includes, but is not limited to, the following:

- a. Giving, taking, or receiving unauthorized information to/from another person during any type of assignment or test.
- b. Obtaining or providing without authorization questions or answers prior to the time of an assignment or test.
- c. Using unauthorized sources for answers during any assignment or test.
- d. Taking part in or arranging for another person to complete an assignment or to take a test in place of another.
- e. Giving or receiving answers by use of signals or electronic communication during a test.
- f. Altering answers on a scored test and submitting it for a higher grade.
- g. Collaborating with others in a required assignment without the approval of the instructor.
- h. Stealing class assignments or portions of assignments, including electronic files, and submitting them as one's own.
- i. Not crediting participants for their part in a group project or claiming credit for work not done on a group project.

- j. Plagiarism, which is presenting as one's own in whole or in part the argument, language, creations, conclusions, or scientific data of another without explicit acknowledgment. Examples include, but are not limited to:
1. Using another person's written or spoken words without complete and proper citation.
  2. Using information from a Website, CD-ROM or other electronic source without complete and proper citation.
  3. Using statistics, graphs, charts and facts without acknowledging their source.
  4. Submitting a paper purchased from a term-paper service.
  5. Paraphrasing, which is imitating someone else's argument using other words without acknowledging the source.
  6. Claiming credit for someone else's artistic work, such as a drawing, script, musical composition or arrangement.
  7. Using someone else's lab report as a source of data or results.
  8. Using one's own or substantially similar work, produced in connection with one course, to fulfill a requirement in another course without prior permission. A student may use the same or substantially the same work for assignments in two or more courses only with written permission from the instructors of all the classes involved.
  9. Submitting the results of a machine translation program as one's own work.

### 3. Procedures

Although instructors should make every effort to ensure that all students are aware of the policies for academic dishonesty, it is the responsibility of each student to read, understand, and uphold the standards of academic honesty.

An instructor suspecting an act of academic dishonesty shall discuss the matter thoroughly with the student involved. Arrangements for this discussion shall be made by the instructor within ten (10) working days after discovering the alleged violation. If the incident occurs at the end of the quarter, or in the event the student is absent from campus, the instructor shall attempt to contact the student via email and in writing at the most recent permanent address available in the Registrar's Office. Should the instructor be unable to arrange a meeting with the student to discuss the incident in question before final grades are due, the instructor shall submit a grade of X with a note to the Registrar. The Registrar shall in turn inform the student of his/her responsibility to contact the instructor. Should the student not respond to the faculty member by the 10th working day of the next academic quarter, not including summer, the grade will be changed to an F or where appropriate to "U" or "NP" as in the case of S/U grading or Pass/No Pass grading.

During the discussion between the instructor and the student, the student may be asked to explain his or her thought process and the sources of the information, ideas, data, or calculations presented in the work under dispute. Failure to give an adequate explanation can influence the instructor's decision. Following this discussion, the instructor shall determine whether or not an act of academic dishonesty has occurred and determine an appropriate penalty. Within ten (10) working days of this discussion and the decision by the instructor that an act of dishonesty has occurred, the instructor will submit the Report of Academic Dishonesty Incident form summarizing the incident and include copies of all evidence. This form will be sent to the Vice President for Academic Affairs, the Registrar, the Dean's office, the Unit Head where the course resides (the program chair or, in the case of colleges without department chairs, the Dean), and the student. A record of the violation is maintained in the Office of the Vice President for Academic Affairs and the Registrar's Office. If the reported violation is the student's first offense, the student is required to complete a self-paced workshop on Academic Integrity maintained in the Student Life Office.



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If the reported violation is the student's second offense, the student is required to appear before the Academic Honesty Board, which will provide a recommendation for punishment commensurate with the severity of the second offense. Typical punishments will range from temporary suspension (length to be determined by Hearing Board based on the severity of the offense), to permanent expulsion from Western Washington University. Documentation of a third offense is likely to result in expulsion, although the Hearing Board has discretion in determining the severity of the punishment, based on the severity of the offense.

No student shall be allowed to withdraw from a course or from the University to avoid the consequences of academic dishonesty.

**Appeal:** A student accused of academic dishonesty and who feels the finding to be in error has recourse to an appeals process. Within five (5) working days of the finding of academic dishonesty the student may appeal to the unit head. The unit head shall make a ruling on the case within ten (10) working days of the appeal. After learning of the unit head's ruling, either the student accused or the faculty member who initiated the charge may within five (5) working days appeal to the Dean of the college in which the course resides. In the case where a faculty member is teaching for an all-university program not under the purview of a college dean, the appeal will go to the dean of the college where the faculty member's appointment resides. The dean shall make a ruling on the case as to whether 1) the student in question committed an act of academic dishonesty; and if so 2) whether the sanction was appropriate, within ten (10) working days of appeal. Either the student or the faculty member who initiated the charge may appeal the findings of the Dean to the Academic Honesty Board within five (5) working days.

The Academic Honesty Board shall consist of two faculty members and two students to be selected from a pool of students and faculty. The Provost shall select the board members and appoint the chairperson. It is recommended that the students and faculty members appointed come from the college involved in the incident, as specified above. The board's findings are restricted to determining whether the student in question committed an act of academic dishonesty. A hearing shall be called within fifteen (15) working days of the filing of the appeal to the Academic Honesty Board unless both parties agree to a delay. Both the student and the instructor may be accompanied by one person, but that person may not speak on behalf of the student or the instructor. Both the student and the faculty member will be asked to present evidence, make oral arguments, and call witnesses, all of which shall be restricted to the issues under consideration and matters already in the record. Members of the board may question either party.

If the faculty member is on leave or is no longer employed by Western, the unit head shall appear in lieu of the faculty member. If the faculty member is available, but does not appear at the hearing, the form that he or she submitted will be considered to be his or her statement. If the student does not attend the hearing, the student's appeal shall be considered withdrawn, and the original finding of the faculty member shall be considered final. At the conclusion of the hearing, the board shall, in writing, a) find that there is insufficient cause to overrule the dean's decision, or b) find that there is sufficient cause to modify or overrule the dean's decision. The Academic Honesty Board shall send a written copy of its decision to the student, the faculty member, the unit head, the Dean, the Registrar, and the Provost.

Within five (5) working days of the ruling of the Academic Honesty Board, either side may appeal all findings to the Vice President for Academic Affairs, whose decision is final. The Vice President for Academic Affairs will meet with the board chairperson if (s)he intends to overrule or modify the decision of the board. Finally, all participants will be notified in writing by the Office of the Provost, as to the final decision.

# Appendix E - Student Records

## Chapter 516-26 WAC

**WAC 516-26-010 Preamble.** The purpose of this student records policy is to establish rules and procedures that appropriately implement the Family Educational Rights and Privacy Act of 1974 (FERPA), 20 USC 123g. Western Washington University is committed to safeguarding appropriate access to student education records as well as maintaining individual student privacy. The University records officer works to ensure that information contained in student records is treated responsibly with due regard to its personal nature, and for the students', University's and community's needs. Questions regarding this policy should be addressed to the University records officer.

1. Generally, students have the right to review and copy their education records. Students also have the right to challenge the content of, release of, or denial of access to their education records.
2. The University will normally not permit access to the public without a student's permission; some exceptions exist as detailed in this policy.
3. The University may release directory information concerning a student unless the student requests in writing that it not be released.

Please read below for a complete description of the policy.

**WAC 516-26-020 Definitions.** For purposes of this chapter the following terms shall have the indicated meanings:

1. "Student" shall mean any person, regardless of age, who is or has been officially registered at and attending Western Washington University and with respect to whom the University maintains education records or personally identifiable information.
2.
  - a.
    - i. "Education records" shall refer to those records, files, documents and other materials maintained by Western Washington University or by a person acting for Western Washington University which contain information directly related to a student.
    - ii. Records relating to an individual in attendance at the university who is employed as a result of his or her status as a student are considered education records. Records made and maintained by the University in the normal course of business which relate exclusively to a person's capacity as an employee and are not available for any other purpose are not considered education records.
  - b. The term "education records" does not include the following:
    - i. Records of instructional, supervisory or administrative personnel and educational personnel ancillary to those persons, which are kept in the sole possession of the maker of the record and which are not accessible or revealed to any other person except a substitute:
    - ii. Records of the University's public safety office maintained solely for law enforcement purposes, disclosed only to law enforcement officials of the same jurisdiction, and maintained separately from education records in (a) of this subsection; but only if said law enforcement personnel do not have access to education records under WAC 516-26-080; or
    - iii. Records concerning a student which are created and maintained by a physician, psychiatrist, psychologist or other recognized professional or paraprofessional acting in

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his or her professional or paraprofessional capacity or assisting in that capacity, and which are created, maintained or used only in connection with the provision of treatment to the student and are not available to anyone other than persons providing such treatment, except that such records may be personally reviewed by a physician or other appropriate professional of the student's choice.

3. "Personally identifiable information" shall refer to data or information which includes either (a) the name of a student, the student's parent or other family member, (b) the address of the student, (c) the address of the student's family, (d) a personal identifier, such as the student's social security number or student number, (e) a list of personal characteristics which would make it possible to identify the student with reasonable certainty, or (f) other information which would make it possible to identify the student with reasonable certainty.
4. "Vice President for Student Affairs" shall refer to the Vice President for Student Affairs/Dean for Academic Support Services or his or her designee.
5. "University records officer" shall refer to that individual (or his or her designee) responsible for the policies safeguarding the access, release, or copying of education records and for informing students and parents of their rights.
6. "Records center manager" shall refer to that individual (or his or her designee) responsible for the facilitation of the development of records retention schedules.
7. "Records coordinator" shall refer to that individual (or his or her designee) designated by the department or unit head to be responsible for the custody of the education record(s) in that office, department or unit.
8. "Unit head" shall refer to that individual (or his or her designee) responsible for the supervision or management of an institutional department or unit.

### **WAC 516-26-030 Access to Education Records.**

1. Except as provided in WAC 516-26-035, each student at Western Washington University shall have access to his or her education records. The right of access shall include the right to inspect, review and obtain copies of education records.
2. The records coordinator is responsible for maintaining an up-to-date records retention schedule which lists the types of student education records maintained by that office, department or unit. The said records retention schedule is also filed with the records center manager and the state archives in Olympia.
3. A student wishing access to his or her education records shall submit a written request for access to the appropriate records coordinator. The records coordinator shall respond to a request for access within a reasonable period of time, not to exceed five days.
4. The records coordinator shall provide students of the University with an opportunity for reasonable access to education records, and shall be responsible for taking appropriate measures to safeguard and ensure the security and privacy of the institution's records while being inspected by students.
5. The records coordinator will inform in writing a student who has requested access to his or her education records of the nature of any records which are being withheld from the student on the basis of the exceptions set forth in WAC 516-26-035. A student may file with the University records officer a

request to review the decision by the records coordinator and/or by the unit head as per WAC 516-26-055 to withhold certain of the student's records. A student may also request a review of the university records officer's decision to withhold certain of the student's records by filing an appeal with the student academic grievance board, refer to WAC 516-26-060.

**WAC 516-26-035 Access to Education Records – Limitations On Access.**

1. Western Washington University shall not make available to a student the following types of materials:
  - a. The financial records of the student's parents or any information contained therein, if the parents have requested in writing that such information remain confidential.
  - b. Letters or statements of recommendation, evaluation or comment which were provided to the University in confidence, either expressed or implied, prior to January 1, 1975, provided that such letters or statements shall not be used for purposes other than those for which they were originally intended.
  - c. If a student has signed a waiver of the student's right of access in accordance with subsection (2) of this section, confidential records relating to the following:
    - i. Admission of any educational agency or institution;
    - ii. An application for employment; or
    - iii. The receipt of an honor or honorary recognition.
2. A student, or a person applying for admission to the University, may waive his or her right of access to the type of confidential records referred to in subsection (1)(c) of this section, provided that such a waiver shall apply only if the student is, upon request, notified of the names of all persons making confidential recommendations, and such recommendations are used solely for the specific purpose for which the waiver has been granted. The University is not allowed to require such a waiver as a condition for admission to, receipt of financial aid from, or receipt of other services or benefits from the University.
3. If any material or document in the education record of a student includes information concerning more than one student, the student shall only have the right either to inspect and review that portion of the material or document which relates to the student or to be informed of the specific information contained in that portion of the material or document.

**WAC 516-26-040 Right to Copy Education Records.**

1. The records coordinator shall, at the request of a student, provide the student with copies of the student's education records. The fees for providing such copies shall not exceed the actual cost to the University of providing the copies.
2. Official copies of transcripts from other educational institutions, such as high school or other college transcripts, will not be provided to students by the University.

**WAC 516-26-045 Request for explanation or interpretation of record.** The records coordinator shall respond to reasonable requests for explanations or interpretations of the contents of student education records.

**WAC 516-26-050 Challenges – to Content of Education Records – to Release of Education Records – or to Denial of Access to Education Records.**

1. Any student who believes that inaccurate, misleading or otherwise inappropriate data is contained within his or her education records shall be permitted to have included within the record a written explanation by the student concerning the content of the records.

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2. A student shall have the right, in accordance with the procedures set forth in WAC 516-26-055 and 516-26-060, to:
  - a. Challenge the content of education records in order to ensure that the records are not inaccurate, misleading or otherwise in violation of the privacy or other rights of the student;
  - b. Have the opportunity to request correction or deletion of inaccurate, misleading or otherwise inappropriate data contained within education records;
  - c. Challenge the release of education records to specific persons as contrary to the provisions of this chapter; and
  - d. Challenge a decision by the University to deny the student access to particular types of records.
3. A student shall not be permitted under this chapter to challenge the validity of grades given in academic courses, except on the grounds that, as a result of clerical error, the student's records fail to accurately reflect the grades actually assigned by an instructor.

**WAC 516-26-055 Challenges – Informal Proceedings.** A student wishing to exercise the rights set forth in WAC 516-26-050(2) shall first discuss with the records coordinator the nature of the corrective action sought by the student. Failing resolution, the student shall next discuss with the department unit head the corrective action sought by the student. Failing resolution, the student shall next discuss with the university records officer the corrective action sought by the student, as outlined in WAC 516-20-030(5).

**WAC 516-26-060 Challenges – Hearing Before Student Academic Grievance Board.**

1. If informal proceedings fail to resolve the complaint of a student, the student may file a written request for an appeal to the Student Academic Grievance Board of the University.
2. The Student Academic Grievance Board shall process the appeal according to procedures outlined in the student academic grievance policy.
3. If a student demonstrates that the student's education records are inaccurate, misleading or otherwise in violation of the privacy or other rights of the student, the Student Academic Grievance Board shall have authority to order the correction or deletion of inaccurate, misleading or otherwise inappropriate data contained in the records.
4. If a student demonstrates that the release of the student's education records would be improper under this chapter, the student academic grievance board shall have authority to order that the records not be released.
5. If a student demonstrates that the student is entitled to access to particular documents under this chapter, the Student Academic Grievance Board shall have authority to order that the student be permitted access to the records.
6. The decision of the Student Academic Grievance Board shall be rendered in writing within a reasonable period of time after the conclusion of the hearing.

**WAC 516-26-070 Release of Personally Identifiable Information or Education Records.** The University shall not permit access to or the release of a student's education records or personally identifiable information contained therein to any person without the written consent of the student, except as provided in WAC 516-26-080, 516-26-085, or 516-26-090. Misuse or inappropriate access to student education records may result in disciplinary action.

**WAC 516-26-080 Release of Personally Identifiable Information or Education Records – Exceptions to Consent Requirements.**

1. The University may permit the access to or release of a student’s education records or personally identifiable information contained therein without the written consent of the student to the following parties:
  - a. University officials, including faculty members, when within the scope of the recipient’s official responsibilities with the University and will be used only in connection with the performance of those responsibilities;
  - b. Federal or state officials requiring access to education records in connection with the audit or evaluation of federally or state supported educational programs or in connection with the enforcement of federal or state legal requirements relating to such programs. In such cases the information required shall be protected by the federal or state officials in a manner which shall not permit the personal identification of students or their parents to other than those officials, and such personally identifiable data shall be destroyed when no longer needed for the purposes for which it was provided;
  - c. Agencies or organizations requesting information in connection with a student’s application for, or receipt of, financial aid;
  - d. Organizations conducting studies for or on behalf of the University for purposes of developing, validating or administering predictive tests, administering student aid programs, or improving instruction, if such studies are conducted in a manner which will not permit the personal identification of students by persons other than representatives of such organizations, and the information will be destroyed when no longer needed for the purposes for which it was provided;
  - e. Accrediting organizations in order to carry out their accrediting functions; or
  - f. Any person or entity authorized by judicial order or lawfully issued subpoena to receive such records or information, upon condition that the student is notified of all such orders or subpoenas in advance of compliance therewith by the University. Any University employee or official receiving a subpoena or judicial order for education records or personally identifiable information contained therein shall immediately notify the assistant attorney general representing the University.
  - g. An alleged victim of any crime of violence (as defined in section 16 of Title 18, United States Code) may have disclosed the results of any disciplinary proceeding conducted by the university against the alleged perpetrator of such crime with respect to such crime, without the consent of the alleged perpetrator.
2. Education records of a student, or personally identifiable information contained therein which are released to third parties, with or without the consent of the student involved, shall be accompanied by a written statement indicating that the information cannot subsequently be released in a personally identifiable form to any other party without the written consent of the student involved.
3. The University shall maintain a record, kept with the education records of each student indicating all parties, other than those parties specified in WAC 516-26-080(1)(a), which have requested or obtained access to the student’s education records, and indicating the legitimate interest that each such party has in obtaining the records or information contained therein. This record of access shall be available only to the student, to the employees of the University responsible for maintaining the records, and to the parties identified under WAC 516-26-080(1)(a) and (c).

**WAC 516-26-085 Release of Information in Emergencies.**

1. The vice president for student affairs or his or her designee may, without the consent of a student, release the student’s education records or personally identifiable information contained therein, to

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appropriate parties in connection with an emergency if the knowledge of such information is necessary to protect the health or safety of the student or other persons.

2. The university police, during instances of emergency pertaining to individual students, may have access to those student's education records or personally identifiable information.
3. The following factors should be taken into consideration in determining whether records may be released under this section:
  - a. The seriousness of the threat to the health or safety of the student or other persons;
  - b. The need for personally identifiable information concerning the student to meet the emergency;
  - c. Whether the parties to whom the records or information are released are in a position to deal with the emergency; and
  - d. The extent to which time is of the essence in dealing with the emergency.
4. If the University, pursuant to subsection (1) of this section, releases personally identifiable information concerning a student without the student's consent, the University shall notify the student as soon as possible of the identity of the parties and to whom the records or information have been released and of the reasons for the release.

### ***WAC 516-26-090 Release of Directory Information.***

1. The University may release "directory information" concerning a student to the public unless the student requests in writing of the University registrar that the student's directory information not be released except as provided in WAC 516-26-070, 516-26-075, 516-26-080 or 516-26-085.
2. The term "directory information" shall include information relating to the student's name, local telephone number, dates of attendance, degrees and awards received, participation in officially recognized sports and activities, weight and height if a member of an athletic team, and the most recent previous educational institution attended.

### ***WAC 516-26-095 Destruction of Education Records.***

Except as otherwise provided by law, the University shall not be prevented under this chapter from destroying all or any portion of a student's education records in accordance with established record retention schedules, provided that no education record to which a student has requested access shall be removed or destroyed by the University prior to providing the student with the requested access.

### ***WAC 516-26-100 Notification of Rights Under This Chapter.***

The University shall annually notify students currently in attendance of their rights under this chapter and the Family Educational Rights and Privacy Act.

The notice shall include a statement of the following students' rights:

1. Inspect and review the student's education records;
2. Request the amendment of the student's education records to ensure that they are not inaccurate, misleading, or otherwise in violation of the student's privacy or other rights;
3. Allow or deny disclosures of personally identifiable information contained in the student's education records, except to the extent that these regulations and the regulations promulgated pursuant to the Family Educational Rights and Privacy Act allow;

4. File a complaint with the United States Department of Education under 34 CRR 99.64 concerning alleged failures by the University to comply with the requirements of the act;
5. Access information concerning the cost to be charged for reproducing copies of the student's records;  
and
6. Access a copy of the regulations in this chapter (Chapter 516-26 WAC).

The notice shall indicate the places where copies of these regulations are located.



# Appendix F - Academic Grievance and Appeal Policy and Procedures

## 1. Policy

Students have protection, through orderly procedures, against arbitrary or capricious actions or decisions by their instructors; students also have protection against erroneous actions or decisions by academic units. At the same time, students are responsible for achieving and maintaining the standards of academic performance and excellence which are established by their instructors and for complying with all relevant policies, standards, rules and requirements which are formulated by the University and the University's academic units. A student wishing to pursue an academic grievance or appeal must use the following grievance procedure once having received notice of the action or decision which gives rise to the grievance. The emphasis of the grievance procedures is on informal resolution of the grievance. Grievances which involve hearings before the Student Academic Grievance Board should be rare. For help and guidance with the grievance procedures, students should contact the Dean of Students Office. <http://www.wvu.edu/dos/stulife/>

Students who do not meet the deadlines given in the procedures shall be deemed to have waived their right to appeal. If any officer of the University or the Board fails to meet the deadlines established, the student may continue to the next level in the procedures. The deadlines are set to provide a rapid resolution of the grievance. However, unforeseen circumstances such as illness or absence from the campus may result in an extension of a deadline. Such extensions shall be recorded in writing by the unit head, dean or secretary to the Board, as appropriate. If the end of the quarter is reached during the process of following the grievance procedure, the remaining parts of the process will be considered at the start of the next academic quarter, not including summer session.

## 2. Academic Grievances

Academic grievances are limited to the following:

1. A claim by the student that an assigned grade is the result of arbitrary or capricious application of otherwise valid standards of academic evaluation, or
2. A claim by the student that the standards for evaluation are arbitrary or capricious, or
3. A claim by the student that the instructor has taken an arbitrary or capricious action which adversely affected the student's academic progress, or
4. A claim by the student that an academic unit has reached a decision not in keeping with University policy or taken an erroneous action which adversely affects the student's academic standing or academic career.

**NOTE:** Where an action is claimed to be in violation of affirmative action, a separate set of procedures are used (see *Appendix A - WWU Policies on Equal Opportunity/Nondiscrimination, Affirmative Action, Sexual Harassment, Reasonable Accommodation*).

## 3. Procedures

### 1. Resolution and Appeals

A student with an academic grievance against an individual instructor shall first thoroughly discuss the matter with the instructor involved. The student must meet with the instructor within ten (10) days of receiving written notification of the action or decision which gives rise to the grievance or 10 days from the grade posting deadline. In the case of absence from the campus of either of the parties, the student shall inform the academic unit head, in writing, of the existence of the grievance and the unit

head shall arrange for consultation between the parties concerned at the earliest possible opportunity. Should the faculty member be on extended leave, or have resigned from the University, the unit head shall act for the instructor.

The instructor and the student should make a good faith effort to resolve the grievance. Grievances resolved at this stage do not require a written record unless the resolution involves a grade change. The instructor will send a memo to the Registrar indicating the grade change. A copy will be sent to the student.

If a resolution is not achieved between the student and the instructor within five (5) days after the first meeting between the student and instructor, the student has five (5) days to ask the academic unit head, or designee, to attempt to informally resolve the issue. The unit head, or designee, will meet with both parties to clarify the issues and attempt to resolve them. If the issue is resolved within five (5) days after the student has sought the assistance of the unit head, the unit head, or designee, shall prepare an informal agreement, in writing, for both sides to sign. No reasons need be given. Such an agreement, once signed by both parties, may not be appealed.

If an agreement cannot be reached within the five-day review period, and the student still wishes to pursue the grievance, the student shall request the unit head or designee to present the case to the dean of the college in which the academic unit resides. In the case where a faculty member from one college is teaching a course in another college, the appeal will go to the dean of the college where the course resides. In the case where a faculty member is teaching for an all-university program not under the purview of a college dean, such as Honors or Women Studies, the appeal will go to the dean of the college where the faculty member resides. The unit head has five (5) days to present the material to the dean. The material presented should include all of the documents relevant to the case and an analysis of the issues. The dean shall continue the process of seeking an informal resolution and collect more material as necessary. If a resolution can be reached, the dean shall prepare an informal agreement as above. Such an agreement, once signed by both parties, may not be appealed. If the student has a grievance against an academic unit, the student shall first thoroughly discuss the matter with the unit head. The student must meet with the unit head within ten (10) days of receiving notification of the action or decision of the unit which gives rise to the grievance. If the grievance is not resolved within ten (10) days of the initial meeting between the student and the unit head, the student may request, in writing, further review by the dean of the college in which the academic unit resides, following the procedures for grievance.

If the grievance against a faculty member or academic unit is not resolved at this stage, the appropriate dean, as specified above, shall make a decision based on the merits of the case. The reasons for the decision shall be in writing and shall be given to both the student and the instructor and unit head. The dean's decision must be rendered and given to all parties within five (5) days of receiving the material. The written decision of the dean will include: (1) a statement of the grievance, (2) a statement of the efforts made to resolve the issue and (3) a statement of action, with reasons. If the grievance does not involve a graduate student, either side may appeal a decision of the college dean to the Student Academic Grievance Board. The appeal must be filed within five (5) days after the receipt of the dean's written decision. Either party may appeal to the Academic Grievance Board in writing to the executive secretary of the academic grievance board. The appeal must be received within five (5) days after receiving the decision of the college dean. If the grievance involves a graduate student, either side may appeal a decision of the dean to the dean of the graduate school. The appeal must be filed within five (5) days after the receipt of the college dean's written decision. The graduate dean shall make a decision based on the merits of the case. The reasons for the decision shall be in writing and shall be given to the student, the instructor, unit head and the appropriate dean, as specified above. The graduate dean's decision must be rendered and given to all

## APPENDIX F

parties within five (5) days of receiving the material. The written decision of the graduate dean will include: (1) a statement of the grievance, (2) a statement of the efforts made to resolve the issue and (3) a statement of action, with reasons. Either side may appeal a decision of the dean of the graduate school to the Student Academic Grievance Board. The appeal must be filed within five (5) days after the receipt of the graduate dean's written decision. The party appealing to the Academic Grievance Board will inform the executive secretary of the academic grievance board.

### 2. Appeal to the Board

1. *Composition of the Board.* The Student Academic Grievance Board shall consist of six (6) members: three students and three faculty. An administrator appointed by the Vice President for Student Affairs will serve as executive secretary to the board and will be responsible for the arranging of meetings and the collection and maintenance of necessary documents. The board, for any hearing, will be selected in the following manner:
  - a. The pool of board members shall consist of six (6) faculty appointed by the Faculty Senate for three-year terms; six (6) undergraduate students and six (6) graduate students appointed by the Associated Students board for one-year terms.
  - b. Each party to the grievance shall have the right to reject two faculty and two students from the list of the pool of board members.
  - c. From the remaining members, the Vice President for Academic Affairs or designee shall select the board members for the hearing, and shall appoint the chairperson. If the grievance involves a graduate student, at least two of the board members must be graduate students.

### 2. Appeal Procedures

- a. *Lodging appeal.* The party appealing to the board shall present the appeal to the executive secretary of the board within five (5) days after issuance of the dean's written decision. The letter of appeal shall state the basis of the appeal. The secretary will send a copy of the appeal to the second party to the grievance, who may respond in writing. All materials used at any stage of the grievance shall be made available to both parties, the unit head, and to the dean.
- b. *Mediation.* If both parties agree to mediation, a mediator will be appointed by the Vice President for Academic Affairs or designee from a list of four persons previously appointed by the Faculty Senate. Each party to the grievance shall have the right to reject one mediator from the list of four. The mediator has five (5) days from the time of appointment to attempt to resolve the issue to the satisfaction of both parties. If the issue is resolved, the mediator shall prepare an informal agreement, in writing, for both sides to sign. No reasons need be given. Such an agreement, once signed by both parties, may not be appealed. If the issue is not resolved the appeal proceeds to a hearing.
- c. *Hearing.* A hearing shall be called within fifteen (15) days of the filing of the appeal unless both parties agree to a delay, or unless the grievance is resolved through mediation.

A quorum is four (4) members of the board. Both the student and the instructor may be accompanied by an advocate (although not a legal professional).

Both the student and the faculty member shall be invited to present oral arguments which shall be restricted to matters already in the record. New causes for grievance may not be raised at the hearing. Members of the board may question either party.

No testimony may be taken by the board unless both parties are present, or have waived their right to be present.

At the conclusion of the hearing, the board shall, in writing,

- a. Request additional information, to be considered at a future hearing, or
- b. Find that there is insufficient cause to overrule the dean's decision and recommend to the Vice President for Academic Affairs that it be upheld, or
- c. Find that there is sufficient cause to modify or overrule the dean's decision and recommend appropriate action to the Vice President for Academic Affairs.

### 3. Appeal to the Vice President for Academic Affairs

Either party may appeal to the Vice President for Academic Affairs from a decision by the board. Such appeal shall be made, in writing, within five (5) days after the issuance of the board's written decision. The board chairperson has the right to make a written response to the appeal within five (5) days of filing the appeal. The vice president may overrule or modify the decision of the board only if that decision was arbitrary, capricious, based on insufficient information, or was beyond the scope of these procedures as defined in Section 2. The Vice President for Academic Affairs will meet with the board chairperson if (s)he intends to overrule or modify the decision of the board. The decision of the Vice President for Academic Affairs is final. Copies of the Vice President's decision will be sent to the student, faculty member, unit head, dean of the college in which the unit resides, dean of the graduate school if a graduate student is involved, chairperson and secretary of the board.

### 4. Maintenance of Records

All written statements and testimony considered in the grievance process and a copy of the final written decision of the board or academic vice president shall be retained on file in the academic vice president's office for a period of one (1) year following final disposition of the grievance. Where a solution or decision results in a grade change, the instructor shall inform the registrar of the grade change.

### 4. Definitions

These definitions are for the purposes of these procedures only:

1. "Academic unit" is Fairhaven College of Interdisciplinary Studies or a department within the Colleges of Business and Economics, Fine and Performing Arts, Humanities and Social Sciences, Sciences and Technology, Huxley College of the Environment, or Woodring College of Education.
2. "Unit head" is the department chairperson, or, in the case of Fairhaven college, the chairperson of the college personnel committee and the program director in the case of academic programs.
3. The unit head "designee" can be any faculty member or administrator from the academic unit. Appointment of the designee shall be in writing and sent to the Vice President for Academic Affairs.
4. "Dean" is the dean or dean's designee of the college in which the academic unit resides, unless specified otherwise. Appointment of the designee shall be in writing and sent to the Vice President for Academic Affairs
5. Reference to "days" means "school days" and includes the registration period and the week in which exams are scheduled.
6. WWU's Academic Year begins on the first day of instruction every fall term, and concludes at the end of final examination week every spring term (see academic calendar for exact dates). Summer Session is an exception to the Academic Year and grievances not resolved before Summer Session will be continued during the coming fall term.

# Appendix G - Code of Ethics for the Faculty of WWU

*This Code of Ethics was adopted by vote of the faculty of Western Washington University on May 14, 1993, and was endorsed for inclusion in the Faculty Handbook by the Board of Trustees on July 8, 1993.*

## *Preface*

Membership in the academic community and in the faculty of Western Washington University imposes upon faculty a range of obligations beyond that currently accepted by the members of the wider society. These obligations, which ensue from the faculty member's commitment to learning and to the role of teacher, include obligations to respect the dignity of others; to acknowledge the right of others to express differing opinions; to foster learning; to defend intellectual honesty, freedom of inquiry, learning and teaching; and to support freedom of expression on and off campus. An obligation to protest injustices and seek correction of inequities carries with it the corollary responsibility to do so in ways which do not intentionally, persistently or significantly impede the functions of the institution.

A professional faculty, as guardian of academic values, serves as the instrument of disciplinary action against unjustified assaults upon those values by its own members. The traditional faculty role of limiting participation in disciplinary action to assurance of academic due process is inadequate to protect the conditions enumerated in the 1940 AAUP Statement on Academic Freedom. This function must be preserved but must also be strengthened by faculty assumption of responsibilities in adopting, practicing and promoting adherence to those principles of conduct essential to academic endeavor.

In recognition of this responsibility, the faculty of Western Washington University have adopted this Code of Ethics as a guide for present and future members of the University faculty.

## *Section 1*

Western faculty members, guided by a deep conviction of the worth and dignity of their role in the advancement and dissemination of knowledge, recognize the special responsibilities placed upon them as scholars. Their primary responsibility to their respective subjects is to seek and to state the truth as they, in consequence of their academic competence, perceive it. To this end faculty energies are devoted to developing and improving their scholarly competence. They accept the obligation to exercise self-discipline and judgment in using, extending and transmitting knowledge. They practice intellectual honesty. When subsidiary interests are followed, they must ensure that these interests do not seriously compromise freedom of inquiry nor the fulfillment of academic responsibilities.

## *Section 2*

As teachers, the Western faculty encourage the free pursuit of learning by students, and demonstrate by example the best scholarly standards of their respective disciplines. The faculty respect students as individuals and adhere to their designated role as intellectual guides and counselors, make every effort to foster honest academic conduct and to assure that evaluations of students reflect their actual performance. The faculty avoid and condemn sexual harassment, intimidation, and exploitation of students. The confidential nature of the relationship between professor and student is respected, and any exploitation of students for private advantage is avoided by the faculty member who acknowledges significant assistance from them. Faculty strive to help students develop high standards of academic competency and respect for academic freedom.

## *Section 3*

A teacher's mastery of his/her subject and scholarship entitles the teacher to a classroom and to freedom in the presentation of a subject. Faculty thus avoid injecting into classes material which has no relation to the subject and conscientiously develop the content of a course as announced to students and as approved by the faculty in their collective responsibility for the curriculum.

*Section 4*

As a colleague, the Western faculty member has special obligations that derive from membership in the community of scholars. These include respect for, and defense of, the free inquiry of associates and, in the exchange of criticism and ideas, the respect for the opinions of others. Faculty members acknowledge the contributions of their colleagues and strive to be fair in their professional judgment of colleagues. Each accepts his/her share of faculty responsibilities for the governance of this institution.

*Section 5*

As a member of this institution, each Western faculty member seeks above all to be an effective teacher and scholar. Although all regulations of the institution that do not contravene academic freedom are observed by the faculty, the right to criticize institutional regulations and to seek their revision is maintained. The amount and character of work done outside the institution is determined by the faculty member with due regard to the paramount responsibilities within it. When considering the interruption or termination of service, the faculty member recognizes the effect of such decisions upon the program of the institution and gives due notice of such intentions.

*Section 6*

As a member of a larger community the Western faculty member maintains the same rights and obligations as does any other citizen. The urgency of these obligations is measured in the light of responsibilities to the discipline, to the students, to the profession, and to the institution. When speaking or acting as a private individual, each faculty member avoids creating the impression of speaking or acting for the University. As a citizen engaged in a profession that depends upon freedom for its integrity and welfare, the Western faculty member exercises a special obligation to promote conditions of free inquiry and to further public understanding of academic freedom.

*Section 7*

Conflict of Interest Resulting from Family and/or Intimate Personal Relationships in Employment Situations (modified April 2012).

## Definitions:

"Family members" shall mean members of the same immediate or extended family, such as spouse, sibling, parent, legal guardian, child.

"Intimate Personal Relationship" shall mean emotional or physical relationship that has sexual or romantic overtones. This definition also includes persons in a co-habitation relationship and any persons engaged in a romantic or sexual relationship.

The university employs and retains the best qualified individuals as members of the faculty, administration, and staff. The protection of the individual as well as of the university, however, requires certain safeguards from potential conflicts of interest.

No faculty member, department chair, academic dean, or other academic administrative officer of Western Washington University, including the President and Provost, shall participate in any decision that directly affects the condition of employment with the university for family members or partners in an intimate personal relationship. These decisions include appointment, evaluation, promotion, retention, discipline, or dismissal.

Whenever a department chairperson, academic dean, or other administrative officer would in the normal course of business participate in a decision prohibited under this section, the Provost/Vice President of Academic Affairs shall delegate the responsibility for such a decision to an appropriate person.

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No employee shall review, audit, or administer public funds under the control of another family member or partner in an intimate personal relationship.

When employees discover that their duties will lead to making decisions that directly affect the condition of employment at the university for family members or partners in an intimate personal relationship, they will promptly inform their immediate supervisors (i.e. chair, director, dean, etc.) and request that those duties be assigned to different employees.

### *Section 8*

Consensual Intimate Relationships between Faculty and Students (modified April 2012)

#### Definitions:

"Intimate personal relationship" shall mean emotional or physical relationship that has sexual or romantic overtones.

"Faculty" shall mean all those who hold tenure-track, tenured, and non-tenure track faculty appointments.

"Students" shall mean students in a faculty member's class, a student employee under a faculty's supervision such as graduate teaching or research assistant or a student who was or may be mentored, advised or evaluated in any way by a faculty member.

Intimate personal relationships between faculty members and students currently in the faculty member's class or under that individual's supervision are prohibited and considered a violation of the Code of Ethics, since the faculty member has professional responsibility for the student. (See Section 7 of this Code regarding "Conflict of Interest Resulting from Family Relationships.") Intimate personal relationships between faculty members and students occurring outside the instructional and supervisory context may also lead to difficulties, particularly when the faculty member and student are in the same academic unit or in units that are academically allied. In such situations, the faculty member may face serious conflicts of interest and should be careful to maintain distance from any decisions that may reward or penalize the student involved. A faculty member who fails to withdraw from participation in activities or decisions that may reward or penalize a student with whom the faculty member has or had an intimate personal relationship is considered to be in violation of the Code of Ethics.

The university's educational mission is promoted by professionalism in faculty-student and supervisor-subordinate (e.g. faculty and teaching or graduate assistant; advisor and student) relationships which are maintained by an atmosphere of mutual trust and respect. Actions that negatively impact this atmosphere undermine professionalism and the fulfillment of the university's educational mission. Intimate personal relationships between faculty members and currently enrolled students are unwise because of the trust accorded to the faculty by their students. Faculty and supervisors have power over students through grading, evaluating creative and scholarly endeavors, making recommendations for further studies or future employment, or conferring any other benefits. Intimate personal relationships between faculty and students or supervisors and students create the risk of real or perceived favoritism toward the student in the personal relationship and potential harm to this and other students. When a power disparity exists in the academic or employment association of the individuals in the intimate personal relationship, the academic or employment interests of the student must be protected.

Trust and respect are diminished when those in positions of authority abuse or appear to abuse their power. Those who abuse or appear to abuse their power violate their duty to the university community. Such situations greatly increase the chances that faculty may abuse their power and emotionally or sexually exploit the student. Voluntary consent by the student in such relationship is legally questionable, given the fundamentally asymmetric nature of the relationship. Moreover, other students and faculty may be affected by

such unprofessional behavior because it places the faculty member in a position to favor or advance one student's interest at the expense of others and implicitly makes obtaining benefits contingent on continuing the intimate personal relationship.

Individuals should be aware that consensual personal relationships that are intimate (emotionally or physically) or romantic or sexual in nature, may result in claims of sexual harassment (See POL-UI600.04) because the voluntariness of the consent is legally questionable due to the power differential that exists between faculty and students and supervisors and students. This differential makes such relationships vulnerable to exploitation and to claims of exploitation. If a sexual harassment claim subsequently is filed by a student in an intimate personal relationship with his/her faculty member or supervisor, this matter will be subjected to investigation regardless of whether it could be at any point characterized as a consensual relationship.

#### *Section 9*

It is presumed that members of the Western faculty will find this Code of Ethics an adequate guide for the choices they must make in the fulfillment of their academic functions. If rules are needed to implement the principles inherent in this code, they shall be developed by the faculty within the spirit of the code, shall be in accordance with the 1940 AAUP Statement on Academic Freedom, and shall carry full provision for due process.



# Appendix H - WWU Administrative Procedures

Western Washington University is required to develop and implement procedures that ensure equal opportunity; and to effectively address situations that violate its equal opportunity and nondiscrimination and sexual harassment policies. The following section outlines the University's internal procedures for handling complaints of illegal discrimination and making requests for reasonable accommodation.

## A. Discrimination Complaint Procedure

### Introduction

The University is committed to resolving complaints of illegal discrimination at the earliest and most informal level, conducting internal investigations in a timely and effective manner, adhering to the principles of due process in all investigations and hearings, and providing prompt corrective action if discrimination is found to have occurred. No individual shall be penalized, or retaliated against in any way by a member of the University community for his or her participation in this complaint procedure.

### Purpose and Jurisdiction

This procedure is limited to complaints which allege discrimination on the basis of race, color, creed, religion, national origin, sex (including sexual harassment), sexual orientation, gender identity, gender expression, age, marital status, disability (including failure to provide reasonable accommodation), veteran status, or genetic information. Aggrieved parties will be referred to as complainants. Persons alleged to have engaged in illegal discrimination will be referred to as respondents.

This procedure is internal to the University and applies to incidents that take place at the University or are related to University operations. Individuals who may use this procedure include, but are not limited to:

- Staff (exempt and non-exempt)
- Faculty
- Students
- Individuals applying for enrollment or employment to the University
- Users of University services

Supervisors, unit heads, department chairs and others in leadership are charged with the responsibility of ensuring nondiscrimination in the employment and academic environment.

To facilitate investigation, complaints should be brought forward to the Equal Opportunity Office as soon as possible after the alleged act of discrimination.

Individuals also have the right to file complaints of discrimination with the appropriate state or federal agency or a lawsuit in a court with jurisdiction.

### Responsibility for Implementation

The Vice Provost for Equal Opportunity and Employment Diversity, Title IX and ADA Coordinator (Vice Provost) has overall responsibility for assuring University compliance with nondiscrimination laws and regulations.

The Equal Opportunity Office (EOO) investigates complaints and provides advice on all aspects of discrimination.

The Senior Vice President for Enrollment and Student Services has responsibility for administration of the student conduct system and for determination of any disciplinary actions against students which might arise

from a complaint of student misconduct. Procedures for this action are detailed in the Student Rights and Responsibilities Code, found in the University *General Catalog* and in the Washington Administrative Code at Chapter 516-23 WAC.

### Procedure

Confidentiality is essential in matters involving allegations of illegal discrimination. Complainants, respondents, and participants in these processes are urged to treat all information as confidential and to disclose information about the case only when it is absolutely essential to making the determinations involved in this procedure. Breaches of confidentiality may be the basis for claims of unprofessional conduct, student conduct code violations, or charges of slander and retaliation.

#### *1. Informal Resolution*

- a. Discussion with respondent.* Complainants are urged to discuss with the respondent or bring to the attention of the respondent any inappropriate behavior in order to make the respondent aware of the manner in which his/her action is received and allow for self-corrective action.
- b. Discussion with leadership encouraged.* If attempts to discuss their concerns with the respondent are unsuccessful or ill-advised, complainants are encouraged to discuss their concerns with the appropriate supervisor or department chair who is responsible for taking corrective action. The matter may be concluded by mutual consent at this point. Supervisors and chairs are encouraged to utilize the expertise of the EOO when handling such matters and are advised to maintain documentation sufficient to demonstrate a timely, appropriate and adequate response.
- c. Role of the Equal Opportunity Office.* If resolution satisfactory to the complainant does not occur, the complainant may contact the next person in the administrative line or the EOO to seek resolution. The center will assign a staff member to discuss options for handling the situation and make referrals to appropriate resources and support services. If the EOO has jurisdiction over the complaint, the complainant may authorize an attempt at informal resolution.

At any point in the process, the complainant may inform the EOO that the situation is resolved or that no further University action is desired.

#### *2. Formal Complaints*

- a. Filing the formal complaint.* A complainant who is not satisfied with the outcome of the informal resolution process may file a written complaint with the Vice Provost for Equal Opportunity and Employment Diversity. The complainant will submit a formal complaint form (available from the EOO) which will include a written statement describing the alleged discrimination. Upon receipt by the EOO, the complaint shall be marked with the date received. That date shall be referred to as the case filing date. Time limits set forth in these procedures may be extended by the Vice Provost at his or her discretion, or upon written application to the Vice Provost by the complainant, respondent, or the unit Vice President. The Vice Provost shall inform the parties when extensions of the time limits are made. Only in extremely unusual circumstances may an extension prevent the procedure from being completed within 100 working days of the case filing date.
- b. Time Limit Extensions.* Time limits set forth in these procedures may be extended by the Vice Provost at his or her discretion, or upon written application to the Vice Provost by the complainant, respondent, or the unit Vice President or Dean. The Vice Provost shall inform the parties when extensions of the time limits are made.
- c. Determination of whether complaint is subject to procedures.* Within ten (10) working days of the case filing date, the Vice Provost or designee shall determine whether the facts alleged in the complaint fall within the jurisdiction of the EOO. If not, the complainant shall be notified in writing. No appeal may be taken internally of this determination. A complainant or respondent who feels that action is

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warranted even though the EOO has found otherwise may make a complaint through other internal procedures, such as the appropriate grievance committee, or externally to an agency such as the Equal Employment Opportunity Commission.

- d. *Steps taken to proceed with complaint.* If the Vice Provost determines that the complaint falls within the jurisdiction of the EOO, s/he shall:
  - i. Provide a copy of the complaint to the respondent(s), together with a copy of these procedures, and request a written response to the allegations;
  - ii. Inform the appropriate Vice President(s) and the complainant(s)' and respondent(s)' Dean or unit head of the complaint;
  - iii. Consult with the complainant, the department chair or unit head, and the respondent(s), all of whom may identify other persons having personal knowledge of the alleged incidents and all of whom will be advised of the necessity for confidentiality.
- e. *Written response may be filed.* Within ten (10) working days after receiving notification of the complaint, the respondent may submit to the Vice Provost a written response to the complainant's allegations. The respondent is encouraged to provide a written response; however, refusal to answer a charge or to participate in an investigation will not prevent the process from proceeding. Refusal to respond may result in the investigation proceeding solely on the basis of the complainant's testimony and evidence.
- f. *Investigation and report.* Within sixty (60) working days after determining jurisdiction, the Vice Provost or her/his designee shall:
  - i. Review respondent(s)' and conduct an investigation. Investigation may include interviewing those persons identified by the parties as having personal knowledge of the alleged incidents and others identified in the investigation whose testimony may shed light on the complaint and collecting and reviewing relevant documentation and materials;
  - ii. Prepare a written investigative report which explains the investigation process summarizes the information obtained, and make findings as appropriate;
  - iii. Provide a copy of the investigative report to the complainant(s), respondent(s), the appropriate Vice President, and the appropriate dean.
- g. *Review by Vice President.* Within 10 working days after receiving the investigative report, the appropriate Vice President or designee will determine appropriate actions in response to the findings. The Vice President's response shall be documented in writing and provided to all appropriate parties, including the EOO. Should the resolution of a complaint result in disciplinary action(s) for the respondent, the respondent(s) may seek review of the action(s) using the appropriate appeal procedures.
  - i. *Sanctions.* Sanctions to be considered by the Vice President can vary in type, intensity and duration, depending on the specifics of each case. All sanctions, with the exception of termination or dismissal, may include mandatory training sessions. Examples of sanctions to be considered are:
    - a. Letters of reprimand;
    - b. Community/public service;
    - c. Monetary compensation to complainant;
    - d. A reduction of job responsibility or demotion;
    - e. Denial or postponement of leaves or salary increases;
    - f. Suspension from employment;
    - g. Dismissal or suspension from the University.

### *3. Complaint Initiated by Administration*

The President, Provost, Vice Presidents, Deans, Directors, Supervisors or Chairs, if given sufficient cause, may request that the EOO conduct an investigation. The administrator requesting the investigation will then act as the complainant and must specify the persons, with their permission, who are alleged to be the victims of the questionable conduct. The EOO will use the same notification and process guidelines outlined in the internal complaint procedure. In the event that the investigation indicates that illegal discrimination has occurred, appropriate disciplinary action may be taken. The administrator who initiated the complaint will not be involved in reviewing the findings or determining sanctions. Appeal of any such action may be filed under the appropriate grievance procedure or relevant disciplinary process.

### *4. Investigation or Informal Resolution Initiated by Equal Opportunity Office*

If there is reason to believe that discrimination or harassment may have occurred but the person alleging discrimination or harassment and/or administrators do not choose to file a complaint, then the Vice Provost for Equal Opportunity and Employment Diversity may initiate an investigation into the matter or attempt to resolve the matter informally.

### *5. Filing a False Complaint*

Filing a false complaint is considered to be serious misconduct and such offenses will be subject to the full range of sanctions. A finding that discrimination did not occur will not in itself be the basis for a charge of false complaint. Similarly, retaliating against participants in these proceedings is serious misconduct, and is subject to sanction. The procedure described in this document will be available to anyone who wishes to allege that a false complaint has been filed or that retaliation has taken place.

### *6. Retaliation Prohibited in Equal Opportunity Discrimination Investigations*

Retaliating against participants in these proceedings is serious misconduct, and is subject to sanction. The procedure described in this document will be available to anyone who wishes to allege that a false complaint has been filed or that retaliation has taken place.

### *7. Alternative Complaint Process*

- a. *Internal.* The complainant may not elect to use other internal grievance procedures (such as the faculty grievance procedure, student conduct code, or labor agreement grievance procedure) for complaints pertaining to claims of illegal discrimination.
- b. *External.* A person who believes that s/he has been the subject of discrimination prohibited by state or federal law may choose to file a discrimination complaint by contacting one of the following agencies within their established time limits.

Washington State Human Rights Commission  
 711 S. Capitol Way, #402  
 P.O. Box 42490  
 Olympia, WA 98504-2490  
 Phone: (800) 233-3247  
 TTY: (800) 300-7525

U.S. Equal Employment Opportunity Commission  
 Seattle Field Office  
 909 First Avenue, Suite 400  
 Seattle, WA 98104-1061  
 Phone: (800) 669-4000  
 TTY: (800) 669-6820

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U.S. Equal Employment Opportunity Commission  
131 M Street, NE  
Washington, DC 20507  
Phone: (202) 663-4900  
TTY: (202) 663-4494

U.S. Department of Education  
Office for Civil Rights  
915 Second Avenue Room 3310  
Seattle, WA 98174-1099  
Phone: (206) 607-1600  
TDD: (206) 607-1647

U.S. Department of Education  
Office for Civic Rights  
Lyndon Baines Johnson Department of Education Bldg  
400 Maryland Avenue, SW  
Washington, DC 20202-1100  
Phone: (800) 421-3481  
TDD: (800) 877-8339

U.S. Department of Labor  
Office of Federal Contract Compliance Programs  
Seattle District Office  
300 Fifth Avenue, Suite 1100  
Seattle, WA 98104  
Phone: (206) 398-8005

U.S. Department of Labor  
Office of Federal Contract Compliance Programs  
Frances Perkins Building  
200 Constitution Ave., NW  
Washington, DC 20210  
Phone: (800) 397-6251  
TTY: (877) 889-5627

Adopted by the Board of Trustees on April 12, 1996. Last updated by the Equal Opportunity Office on April 11, 2013.

### **B. Process for Requesting Reasonable Accommodation**

Employing officials, search committee chairs, supervisors, program directors, deans, faculty and department chairs may all receive requests for accommodation from persons with disabilities. Such requests may be submitted by employees, students, applicants for employment, individuals seeking admission to the University or its academic programs, and persons wishing to use University services or participate in University activities and events. The appropriate University contact varies, depending on whether the person requesting the accommodation is a student, employee, applicant, or a member of the general public.

It is the obligation of an individual with a disability to request reasonable accommodation from an appropriate University contact, and to provide documentation of the disability if needed.

- a. *Students.* Students with documented disabilities who are enrolled at the University may request accommodation directly from faculty or staff. However, it is highly recommended that students with disabilities seeks assistance through disAbility Resources for Students (DRS): Old Main Room 120; (360) 650-3083 or (360) 650-7175; drs@wwu.edu; www.wwu.edu/depts/drs.
- b. *Employees.* Employees with disabilities are encouraged to inquire about reasonable accommodations to perform the essential functions of their job, meet performance and conduct standards, and enjoy equal benefits and privileges of employment. The process for requesting a reasonable accommodation can be found on Western's Human Resources website under Disability Services or by contacting Human Resources Disability Services at (360) 650-3771 or 711 (Washington Relay).
- c. *Job Applicants.* Job applicants with disabilities are encouraged to inquire about reasonable accommodations if needed for the application and employment screening process. The policy and procedures for requesting a reasonable accommodation can be found on Western's Human Resources website. See contact information above.
- d. *Applicants for Admission.* Applicants may request accommodation during the application process from the Admissions Office at (360) 650-3440 or disAbility Resources for Students (contact information above).
- e. *Members of the General Public.* Persons with disabilities from the general public needing a reasonable accommodation to participate in a University activity, service or event open to the public are encouraged to contact either the program coordinator for that activity, service or event or the Vice Provost for Equal Opportunity and Employment Diversity: Old Main 345; (360) 650-3307 or 711 (Washington Relay); eoo@wwu.edu.

The Vice Provost for Equal Opportunity and Employment Diversity is the University's ADA Coordinator and may be reached in Old Main 345 or at (360) 650-3307, 711 (Washington Relay), or eoo@wwu.edu. The ADA Coordinator is responsible for ensuring that requests for accommodation are considered on a case-by-case basis in accordance with state and federal regulations, and that appropriate University officials are involved in evaluating the request, identifying funds and resources and implementing the accommodation.

# Appendix I - Transportation Services

WWU is committed to supporting sustainable transportation options and reducing automobile-dependent transportation. All students, faculty, and staff are encouraged to utilize the variety of transportation options available and minimize the use of motor vehicles. Alternatives to driving alone include walking, bicycling, public transit, park and ride, and ride sharing. The Sustainable Transportation Office offers information and assistance to help students find the transportation options that best fit their needs while attending Western Washington University. WWU is bordered by residential neighborhoods within easy walking distance of downtown, and is well served by public transportation. For information, contact Western's Sustainable Transportation program at 360-650-7960, [transportation@wwu.edu](mailto:transportation@wwu.edu) or go to [www.wwu.edu/transportation](http://www.wwu.edu/transportation).

## *Western Student Transportation*

The student transportation program provides transportation resources for students including a Viking Xpress Bus Pass for each student\*, Student Shuttle service, and a student Alternative Transportation Coordinator. The program is funded by a \$26.25 quarterly Student Transportation Fee. For more information, visit the student transportation website at [www.wwu.edu/transportation](http://www.wwu.edu/transportation).

\*Students taking 6 or more credits are automatically assessed the \$26.25 Student Transportation Fee; students taking 1-5 credits can opt in to the student transportation program by paying the fee. Fee and eligibility do not apply to courses offered through Extended Education online or off-site classes or non-credit programs.

## *Student Bus Pass*

The Student bus pass is valid for unlimited rides on all Whatcom Transportation Authority bus routes, including routes serving the Lincoln Creek Transportation Center and the 80X route serving Mount Vernon and Bellingham. Eligible students must go to the Western Card office to have the bus pass encoded on their ID card for each academic year and summer quarter. Lost or damaged ID cards can be replaced at the Western Card office for a fee of \$8.00.

## *Student Shuttle*

The WWU Student Shuttle is a late night bus service that operates during the academic year and is open only to Western students. A valid Western ID card is required to board. The shuttle system consists of two routes that serve WWU, Downtown Bellingham, Bill McDonald Parkway, Lincoln Creek Transportation Center, and Lakeway Center. The shuttle stops at all WTA bus stops along its route, but does not serve WTA's Downtown Station. Instead, the shuttle stops on Railroad Avenue just outside the WTA station.

## *Walking*

WWU is located within a mile of the Bellingham Central Business District and is surrounded by friendly residential neighborhoods. The campus is accessible via trails and an extensive sidewalk network through the neighborhoods. Walking is the cheapest way to go, and for trips of less than a mile, walking from door to door is usually just as fast as driving, parking and walking.

## *Bicycles*

Bellingham is a featured bicycle destination, and the community supports bicycle transportation. With more than 900 bike racks adjacent to residence halls and academic buildings, you are encouraged to bring your bicycle to Western. There are some restrictions on bicycling in campus pedestrian areas during high-traffic times. The WWU Bicycle Commuting Guide and Washington state bicycle traffic laws are available at <http://www.wwu.edu/transportation>. Bicycles can be registered at no charge with University Police at the Campus Services Building. Register your bike to increase the chance of having your bike returned to you in the event it lost or stolen and then recovered. Bicycle locks, lights, parts and repair assistance are available at the Outdoor Center bike shop in the Viking Union.

*Public transit*

Whatcom Transportation Authority (WTA) provides safe, high-quality, cost-effective, and accessible public transportation. WTA offers WWU convenient service with multiple routes Monday-Sunday. Routes serving Western connect with other routes at the downtown Bellingham Transit Station including regional transit connections at Skagit Station in Mount Vernon. Evening service connects WWU with other Bellingham destinations until 10 p.m. seven days a week. Easy to use bike racks are installed on every WTA bus. For WTA route and schedule information, call 360-676-RIDE or visit [www.ridewta.com](http://www.ridewta.com).

*Persons with disabilities service*

All WTA buses (except emergency backup vehicles) are wheelchair accessible. Transit service is available for those unable to access or use fixed route buses through WTA Specialized Transportation by calling (360) 733-1144 (TTY call (360) 676-6844).

*Park and Ride*

The off-campus Lincoln Creek Transportation Center is convenient to Interstate 5 and a 10-minute bus ride to the center of campus. WTA routes serve the park and ride lot, providing a convenient alternative for parking on or near campus.

**Parking Services**

Parking Services is located in the Campus Services Building at the intersection of Bill McDonald Parkway and 21st Street, at the south end of campus. Parking Services hours are 7:15 a.m. to 4:30 p.m. Monday-Friday. Parking space is limited and parking regulations are strictly enforced. Anyone using campus parking facilities are required to purchase and display a valid University parking permit on any motorized vehicle. Drivers are encouraged to become familiar with the University parking and traffic regulations.

**Quarterly and Annual Parking Permits**

Early application is highly advised but does not guarantee a permit for all students who apply. Parking permit applications for Fall Quarter are available online the last week of May, with a deadline of July 31st. Applications are available by mail upon request. Parking assignments are based on credits on file with WWU at the end of Spring Quarter 2013 and the date submitted. Students that do not live on campus may apply for the C lots on the south end of campus, which is about a 10-minute walk from the center of campus. A daily short-term parking permit may be purchased at Parking Services for those needing to drive occasionally. Also, see visitor parking below.

**Parking for Persons with Disabilities**

Parking access throughout the campus is available to those with state disability permits. A WWU permit is also required at the same price as a regular permit during business hours. Accessibility guides to the WWU campus are available at Parking Services. For further information, contact Parking Services.

**Parking for Visitors/Temporary Parking/Loading and Unloading**

Visitors may purchase a permit at Parking Services, pay at a meter or use a pay station in lots 6V, 12A or C all hours of the day. Pay stations in other G lots are available at 4:30, Monday through Friday, and all hours on the weekend. A 20 minute unloading/loading permit can be obtained at Parking Services at no charge. For information on arranging guest parking, contact Parking Services.

**Evening/After Hours and Metered Parking**

In addition to daily regulations, a permit is required evenings Monday-Friday 4:30PM-7AM and all day on weekends. Lots are enforced as posted on the sign at the entrance to each lot. You may obtain a permit at the pay stations located throughout the campus or pay to park in a metered space. Parking is available in the C and 12A gravel lots with no permit required Monday-Friday 4:30PM to 7AM and all day on weekends. Disability



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accessible spaces always require a valid state disability permit. Payment is always required at meters; permits are not valid for parking in a metered space. Students with a valid bus pass may obtain an After-Hours permit at Parking Services.

Quarterly Parking permit fees	Quarterly total
Campus resident parking	\$91.27
Adjacent (C Zone) commuter permit/CR resident permit	\$79.65
Carpool permit	\$59.43
Motorcycle parking	\$16.24
Disability Permit	\$79.65

Daily and Hourly Parking	Per day/hour
Daily parking (7 a.m. to 4:30 p.m.)	\$2 per hour
All day parking	\$10 per day
Meter parking (all hours)	\$2 per hour
Motorcycle parking	\$2 per day
Pay box lots (7 a.m. to 4:30 p.m.)	\$2 per hour
Pay box lots (after 4:30 p.m.)	\$1 per hour

### *Additional Information*

For additional information regarding maps, regulations, visitor or event parking, fees, citations, etc; please visit us at <http://www.wvu.edu/ps/parking>. For additional questions regarding parking on campus or parking permits please call 360-650-2945 or e-mail us at [Parking@wvu.edu](mailto:Parking@wvu.edu).

# Appendix J - Satisfactory Academic Progress Policy for Financial Aid Recipients

## *POL-U7600.01*

The primary purpose of financial aid programs is to help students successfully complete their degree or certificate program in a timely manner. Students are required to meet satisfactory academic progress requirements to receive aid. Financial aid programs include grants, tuition and fee waivers, work study employment, need-based and non-need-based loans, and scholarship programs. Specialized academic progress requirements associated with specific scholarship programs may exceed the general policy requirements outlined below. Questions about the academic progress requirements of individual scholarship programs should be directed to the Scholarship Center.

The academic progress of all students is measured on a quarterly basis. Financial aid recipients failing to meet academic progress requirements for aid programs will be among the first to receive word that their eligibility for funding is at risk. Students placed on financial aid warning or suspension under the satisfactory academic progress policy will be notified immediately following the quarter in which warning or suspension occurs. Notification is delivered via email to the student's official WWU email address.

Students whose aid is suspended may petition for aid reinstatement. Reinstatement is not guaranteed. Students whose petitions are approved will be placed on financial aid probation.

## *General Policy Requirements*

1. Maintain the required grade point average (GPA).
2. Successfully complete the minimum number of credits associated with the enrollment status for which aid was received.
3. Maintain Pace: successfully complete at least 80 percent of cumulative, attempted credits; and
4. Complete your degree or certificate within the maximum allowable timeframe.

## *1. Grade Point Average Requirements*

Students must meet the scholarship standards of the University to remain eligible for financial aid. University scholarship standards include maintaining at least a 2.0 cumulative GPA. The GPA requirement is monitored quarterly. Scholarship standards allow for a limited number of quarters during which an undergraduate student may improve his or her cumulative GPA to the 2.0 minimum requirement. Students dismissed from the University for not meeting the scholarship standard will also have their financial aid eligibility placed in suspended status. There is no financial aid warning period after university dismissal. Scholastic standards for undergraduate and graduate students are fully described in the University Catalog.

## *2. Quarterly Credit Completion Requirements*

To establish and maintain financial aid eligibility, all students must successfully complete the minimum number of credits associated with their enrollment level at lock (see "Changes in Enrollment" on page 4). The following grades do not indicate successful completion of academic credit: F, Z, U, NP, K, W, I, X, XM, NX, SW and audited classes or absence of a grade.

Students with a revised grade must first confirm that the Registrar's Office has made the grade change and then notify the Financial Aid Department of the change in writing. Correspondence and Independent Study courses must be completed within the term for which they were registered to count toward completed credits. Credits earned for repeated coursework may count toward current quarter academic progress requirements in some cases. Contact the Financial Aid Department if you plan to repeat a course. In general, you may receive aid for repeating a previously passed course once and receive aid for repeating a failed course that fulfills degree requirements until it has been passed.

## APPENDIX J

If a student's coursework does not meet minimum requirements, the student will be placed on financial aid warning or financial aid suspension, depending upon the extent of the credit deficiency. Students who successfully appeal for financial aid reinstatement are placed on financial aid probation for the next quarter.

<b>Credit Completion Requirements</b>		
Enrollment Status	Undergraduate Students	Graduate Students
Full Time	12	8
Three-fourths time	9	6
One-half time	6	4
Less than one-half time	All credits attempted	N/A

### *3. Pace*

Students must successfully complete at least 80 percent of their cumulative attempted credits to meet financial aid pace requirements. Attempted credits are defined as all credits that appear on the academic history record. These credits include repeated, failed, incomplete, withdraws, and transcribed transfer credits. The pace requirement is monitored on a quarterly basis. Students failing to meet the pace requirement will be placed on financial aid warning and are allowed one quarter to successfully complete sufficient credits to meet the pace requirement and regain good satisfactory academic progress standing. Students failing to meet the pace requirement at the end of the warning period will have their financial aid eligibility placed in suspended status.

### *4. Maximum Attempted Credit Requirements*

Students receiving aid are allowed to attempt a specified number of credits in order to complete their degree or certificate program. As soon as it is clear that a student will not graduate within this period, the student becomes ineligible for aid. Attempted credits are defined as all credits that appear on the academic history record. These credits include repeated, failed, incomplete, withdrawals (including XM), and accepted transfer credits. If the Financial Aid Department learns that graduation is imminent, aid eligibility must be calculated and limited solely to enrollment in courses required for graduation. Second majors and elective minors are not eligible to be funded with financial aid unless they are included in the official university registration record.

#### ***Undergraduate students***

- May attempt up to 125% of the minimum credit requirements for their baccalaureate program of study, as defined in the University catalog. No additional allowance is granted for concurrent completion of a double major or an elective minor, unless it is included in the official university registration record.

#### ***Graduate Students***

- May attempt up to 125% of the number of credits required by their graduate plan of study. Graduate students are advised to limit their enrollment to the courses appearing on their Plan of Study. Courses not on the Plan of Study are generally not fundable with financial aid. Also, additional coursework beyond the 125% limitation cannot be funded and may jeopardize continued financial aid eligibility under the maximum attempted credit requirement.

#### ***Post-baccalaureate Students Pursuing a Second Undergraduate Degree or a Certificate Program***

- May attempt up to 125 percent of the credits required for the completion of the degree or certificate program.

#### **Financial Aid Warning**

Undergraduate students who were previously in good standing for financial aid satisfactory academic progress purposes but have not met the following requirements will be placed on financial aid warning if they did not:

- Meet the minimum credit requirements but successfully completed at least half-time enrollment status (6 credits for undergraduates, 4 credits for graduates); or
- Meet the pace requirement; or
- Meet the 2.0 minimum cumulative GPA requirement after completion of six quarters or 90 credits.

Students remain eligible to receive aid for one quarter while in warning status. Failure to meet these requirements during the warning quarter will result in financial aid suspension.

### **Financial Aid Suspension**

Students placed on financial aid suspension are ineligible for aid in future quarters. All financial aid processing is placed on hold until eligibility is regained.

Students will be placed on financial aid suspension if they do not:

- Successfully complete at least a half-time quarterly enrollment (6 credits for undergraduate and post baccalaureate students; 4 credits for graduate students); or for students who enroll less than half-time, all attempted credits; or
- Meet the GPA scholarship requirement, resulting in academic dismissal from the University; or
- Maintain at least a 2.0 cumulative GPA beginning with their sixth quarter at WWU or after completing 90 credits (including transfer credits); or
- Meet the minimum quarterly credit requirement, while in financial aid warning status; or
- Meet the pace requirement, while in financial aid warning status; or
- Meet the maximum attempted credits (MAC) requirement.

### **Petitions for Reinstatement of Aid Eligibility**

Students placed on financial aid suspension may petition for aid reinstatement if unusual circumstances beyond their control prevented them from meeting satisfactory academic progress requirements.

Reinstatement is not guaranteed.

Petitions must:

- Explain why the student was unable to meet satisfactory academic progress requirements;
- Describe what has changed that will allow the student to meet satisfactory academic progress requirements at the next evaluation;
- Provide an academic plan to re-establish pace if the suspension resulted from failure to meet the pace requirement; and
- Provide a Degree Evaluation and indicate the number of remaining credits required to complete the degree or certificate if the suspension resulted from exceeding the maximum attempted credits.

If a student's petition for financial aid reinstatement is denied, the student may re-petition after having successfully completed a full-time quarter without the benefit of financial aid. The full-time credit load is 12 credits for undergraduate students and 8 credits for graduate students.

Part-time students may contract with the Financial Aid department in advance for the required number of credits necessary to re-petition for aid reinstatement.

Students unable to reinstate their financial aid eligibility using the above options and who have been unable to attend Western for a full academic year may re-petition for aid reinstatement. Petitions for reinstatement must explain why the student has been unable to reinstate using the above options and how continued ineligibility would constitute an undue hardship.

## APPENDIX J

### ***Financial Aid Probation***

Students who successfully petition aid suspension are placed on financial aid probation for the next quarter. The Financial Aid Department will specify conditions for such students to receive continued financial aid while on financial aid probation.

If eligibility for financial aid is reinstated, the amount of financial aid the student receives is subject to the availability of funds. As a result, it is possible that some funds originally awarded will not be available for the reinstated award.

Students placed on financial aid warning, suspension, or probation will be notified after the end of the applicable term. Notification will be delivered via e-mail to the student's official WWU e-mail account. It is the student's responsibility to notify the Financial Aid department if updated or corrected information becomes available that may re-establish their eligibility for financial aid.

### ***Withdrawals***

Aid recipients withdrawing from all coursework will lose their aid eligibility and may, based on the date of withdrawal, be required to repay the financial aid they have received. Students are considered as having unofficially withdrawn from the University if they have received a combination of the following grades for a given quarter: F, Z, U, NP, W, X, XM. Aid recipients having unofficially withdrawn may be required to repay all, or a portion of their tuition and fees and financial aid for the applicable quarter.

Applicants who withdraw from Western must also provide requested FAFSA verification documentation within 90 days of the request or no later than 30 days after their last day of enrollment, whichever is sooner, or forfeit their ability to receive any aid they otherwise may be eligible to receive.

### **Alternative Student Loan Recipients**

Students receiving alternative student loans from private lenders are subject to all satisfactory academic progress requirements as listed above.

### **Specific Requirements for Alaska Loan Recipients**

Satisfactory academic progress requirements for continued receipt of Alaska Student and Alaska Family Education loans differ from those associated with Federal and Washington State programs:

- Full-time attendance is required for most Alaska Loan programs. Although the Alaska Supplemental Education Loan may allow for less-than fulltime attendance, students considering less-than fulltime attendance are urged to consult the Alaska Commission on Post-secondary Education because state residency and future loan eligibility may be jeopardized by such enrollment.

# Appendix K - Policy Concerning Alcohol and Other Drugs

POL-U7400.01

## Background

*The Federal Drug-Free Workplace Act of 1988 and the Federal Drug-Free Schools and Communities Act amendments of 1989 require that universities promote reduction of risk associated with alcohol and other drug use through adoption and implementation of a policy and program designed to educate the university community about the dangers of alcohol and other drug abuse and to prevent the unlawful possession, use or distribution of illicit drugs and alcohol by students and employees on university property or while involved in university business or activities.*

## Introduction

Abuse of alcohol and other drugs can impair academic ability, work performance, relationships, and personal health and safety. Additionally, the safety of others may be placed at risk by an individual under the influence of alcohol and other drugs.

Diversity of opinion and freedom of choice are concepts which are essential parts of the university educational tradition. This freedom requires the exercise of personal responsibility, including the obligation to make informed decisions regarding the use of alcohol and other drugs. It also requires personal responsibility for the consequences of one's own actions.

## Policy

Western Washington University is committed to an environment which is free of alcohol and other drug abuse for students, faculty and staff. It maintains the commitment in support of academic excellence, work performance and quality of life as well as for the future well-being of all members of this community.

Western Washington University provides: (a) information about alcohol and other drug and the reduction of associated risks; (b) appropriate intervention when alcohol or other drug use creates unwanted or unintended consequences; and (c) support for members of this community in reducing the risk of consequences associated with alcohol and other drug abuse.

Western Washington University will uphold state and federal laws pertaining to alcohol and other drug use. All students, faculty and staff are required to comply with these laws. Action will be taken on any violation of state and federal law or University regulations concerning alcohol and other drugs which (a) occurs in or on property controlled or owned by Western Washington University; or (b) involves University business or activities; or (c) relates directly and materially to the fitness of staff of faculty members in their professional capacities.

Policy approved by the Board of Trustees April, 1999.

A complete set of University guidelines regarding implementation of this policy may be obtained from the Office of the Vice President for Enrollment and Student Services. The guidelines cover: 1) responses to violations of University regulations and state laws; 2) statements of federal and state law; 3) requirements of the Drug Free Workplace Act; 4) regulations on consumption, serving and sale of alcohol; 5) University event guidelines; and 6) marketing, advertising and promotion of alcoholic beverages.

# Appendix L - Course Materials

## Chapter 516-40 WAC

**WAC 516-40-010 Purpose.** The purpose of this chapter is to give students more choices for purchasing educational materials and to encourage faculty and staff to work closely with bookstores and publishers to implement the least costly option without sacrificing educational content.

**WAC 516-40-020 Definitions.** For the purposes of this chapter, the following words and phrases mean:

1. "Course materials." Any supplies or texts required or recommended by faculty or staff for a given course. Course materials may include, but are not limited to, texts, workbooks, study guides, CD-ROMs, art supplies, and other ancillary materials.
2. "Bundle." A group of course materials joined together by packaging or required to be purchased as an indivisible unit.

**WAC 516-40-030 Providing cost savings to students for course materials.**

1. The affiliated bookstore for Western Washington University is the Western Associated Students (AS) Bookstore. The AS Bookstore will:
  - a. Provide students the option of purchasing course materials that are unbundled whenever possible;
  - b. Disclose to faculty and students the retail costs of textbooks on a per book and per course basis and such information will be made publicly available;
  - c. Disclose publicly, when such information is available, how new editions vary from previous editions; and
  - d. Actively promote and publicize book buy-back programs.
2. To provide cost savings to students for course materials, Western faculty and staff members are required to consider the least costly option for such materials, including that they:
  - a. Are encouraged to consider adopting the least expensive edition of course materials available when educational content is comparable.
  - b. Are encouraged to work closely with publishers and the AS Bookstore to create bundles and packages if they provide a cost savings to students.