
**WESTERN
WASHINGTON
UNIVERSITY*
BULLETIN**

GENERAL CATALOG 1977/1979



Aug 31.
500 North
Main

***NAME CHANGE NOTE**

By action of the Washington State Legislature and the Governor in June 1977, Western's name was changed from Western Washington State College to Western Washington University, effective fall quarter, 1977.

This 1977-79 General Catalog was developed and prepared for printing prior to that action, hence all references contained herein do not reflect the name change.



WESTERN WASHINGTON UNIVERSITY BULLETIN

Vol. 73

July, 1977

No. 1

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Colleges/Departments

ARTS & SCIENCES, College of	Old Main	OM 400J
ANTHROPOLOGY	Arntzen Hall	AH 315E
BIOLOGY	Haggard Hall	HH 341
CHEMISTRY	Haggard Hall	HH 207
CONTINUING EDUCATION	Edens Hall	EH 231
ENGLISH	Humanities Building	HU 329
FOREIGN LANGUAGES	Humanities Building	HU 231
GENERAL STUDIES	Miller Hall	MH 359
GEOGRAPHY & REGIONAL PLANNING	Arntzen Hall	AH 217
GEOLOGY	Environmental Studies Center	ES 240
HISTORY	Humanities Building	HU 275
HOME ECONOMICS	High Street Hall	HS 25
JOURNALISM	Humanities Building	HU 340
LIBRARY SCIENCE	Miller Hall	MH 177
MATH/COMPUTER SCIENCE	Bond Hall	BH 202, 211
PHILOSOPHY	Humanities Building	HU 374
PHYSICAL EDUCATION, HEALTH EDUCATION	Carver Gymnasium	CV 102
PHYSICS & ASTRONOMY	Bond Hall	BH 152
POLITICAL SCIENCE	Arntzen Hall	AH 415
PSYCHOLOGY	Miller Hall	MH 220
SOCIOLOGY	Arntzen Hall	AH 315
SPEECH	College Hall	CH 103
TECHNOLOGY	Art/Technology	AT 105
BUSINESS & ECONOMICS, College of	Arntzen Hall	AH 510
ACCOUNTING	Arntzen Hall	AH 510
BUSINESS ADMINISTRATION	Arntzen Hall	AH 510
ECONOMICS	Arntzen Hall	AH 510
OFFICE ADMINISTRATION & BUSINESS EDUCATION	Arntzen Hall	AH 510
EDUCATION, School of	Miller Hall	MH 218F
EDUCATION	Miller Hall	MH 218B
FAIRHAVEN COLLEGE	Fairhaven College	FC
FINE & PERFORMING ARTS, College of	High Street Hall	HS 41
ART	Art/Technology	AT 208
MUSIC	Performing Arts Center	PA 205
THEATRE/DANCE	College Hall	CH 202
HUXLEY COLLEGE	Environmental Studies Center	ES 341

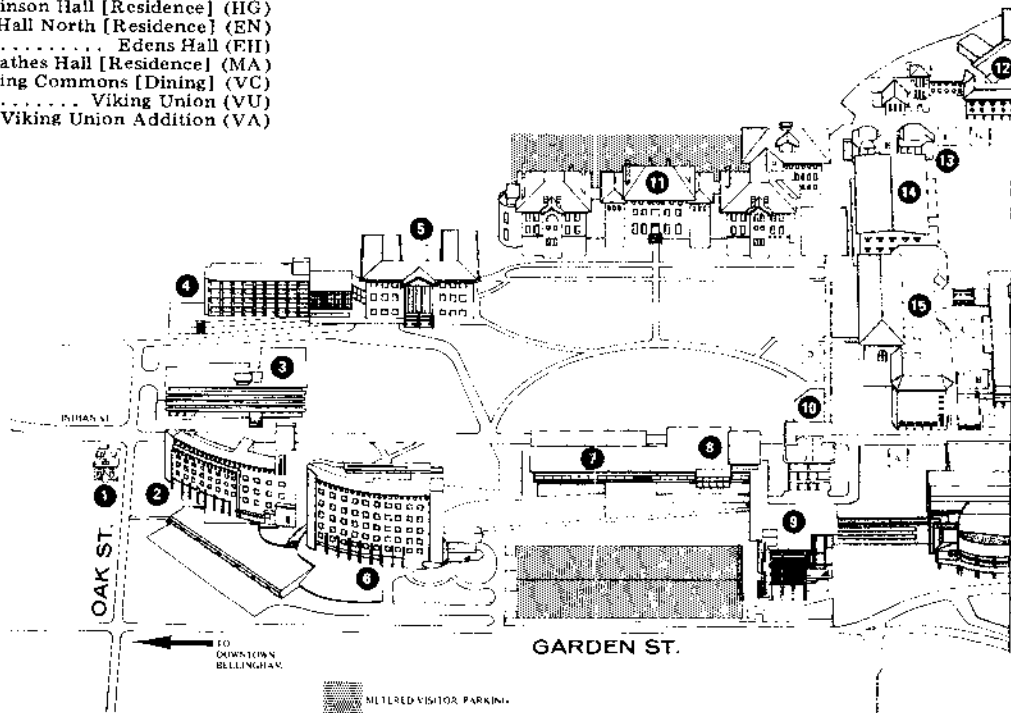
10	Bookstore (BK)
11	Old Main (OM)
12	Miller Hall (MH)
13	Lecture Halls (LH)
14	Humanities Building (HU)
15	Wilson Library (WL)
16	Performing Arts Center (PA)
17	President's House (PH)
18	High Street Hall (HS)
19	Stearns House (SH)
20	College Hall (CH)
21	Haggard Hall (HH)
22	Bond Hall (BH)
23	Carver Gymnasium (CV)
24	Art Annex (AA)
25	Art-Technology (AT)
26	Steam Plant (SP)
27	Arntzen Hall (AH)
28	Environmental Studies Center (ES)
29	Highland Hall [Residence] (HI)
30	Ridgeway Complex
	A Alpha [Residence]
	B Beta [Residence]
	Commons [Dining]
	Δ Delta [Residence]
	Γ Gamma [Residence]
	K Kappa [Residence]
	Ω Omega [Residence]
	Σ Sigma [Residence]
31	Security Office (SO)
32	Fairhaven College (FC)
33	Buchanan Towers [Residence] (BT)
34	Commissary (CM)
35	Maintenance-Motor Pool (MP)
36	Physical Plant (PP)
37	Birnam Wood [Residence] (BW)

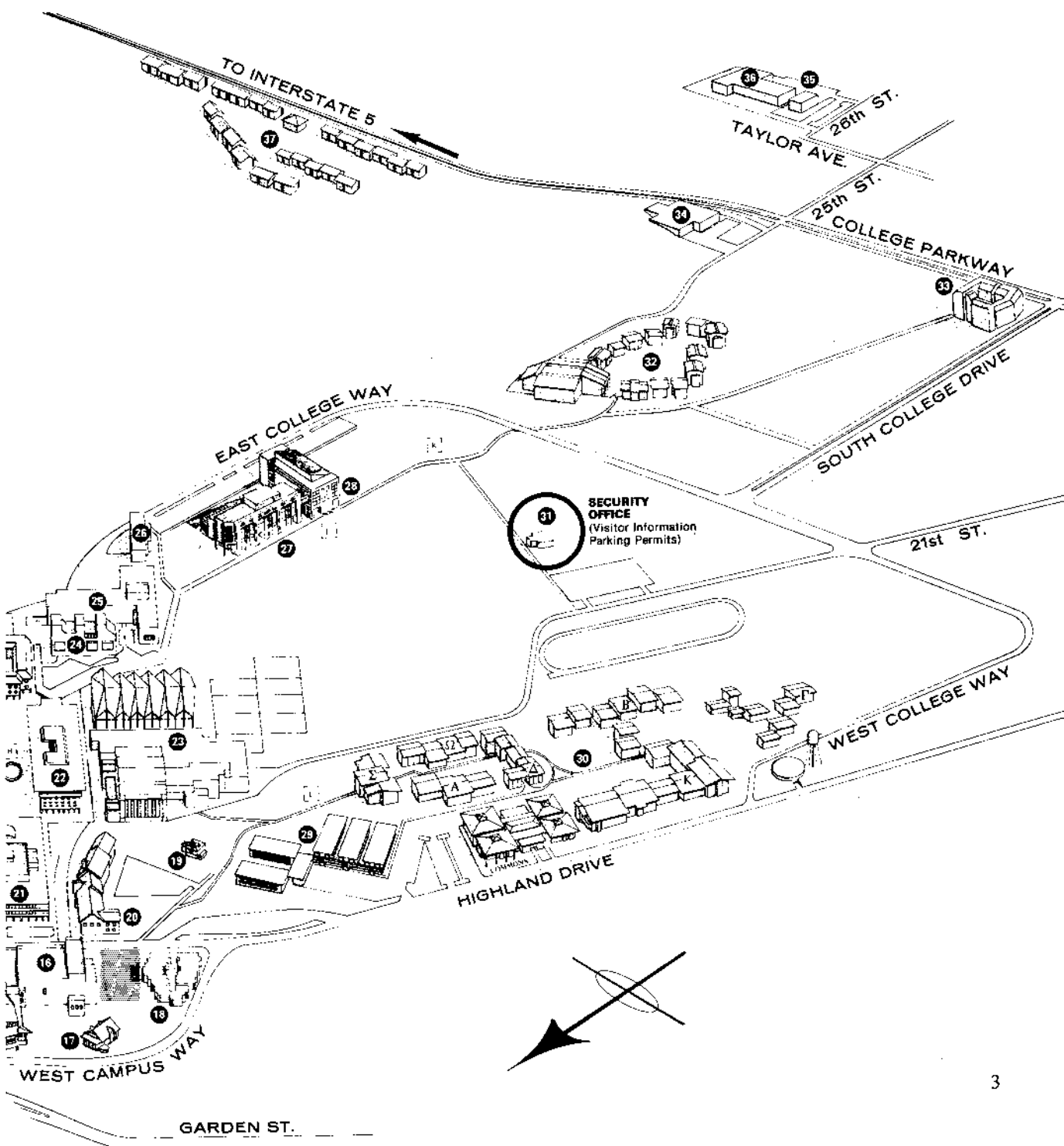
Map key

1	Music Annex (MX)
2	Nash Hall [Residence] (NA)
3	Higginson Hall [Residence] (HG)
4	Edens Hall North [Residence] (EN)
5	Edens Hall (EH)
6	Mathes Hall [Residence] (MA)
7	Viking Commons [Dining] (VC)
8	Viking Union (VU)
9	Viking Union Addition (VA)

On-campus sculpture

A	For Handel, Mark diSuvero
B	Rain Forest, James Fitzgerald
C	Alphabeta Cube, Fred Bassetti
D	The Man Who Used to Hunt Cougars for Bounty, Richard Beyer
E	Totem, Norman Warsinske
F	Scepter, Steve Tibbetts
G	Sky-Viewing Sculpture, Isamu Noguchi
H	Fisher Fountain, Ibsen Nelsen
I	Wandering Rocks, Tony Smith
J	Log Ramps, Lloyd Hamrol
K	Untitled (steam sculpture), Robert Morris
L	Ridgeway Animals, Noel C. Osheroff





UNIVERSITY

ACADEMIC YEAR COLLEGE CALENDAR 1977-78

SEPTEMBER

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Fail Quarter 1977

September 19
Registration

September 21, 8:00 a.m.
Classes begin

November 11
Veterans Day Holiday

November 23, noon-November 28
8:00 a.m., Thanksgiving Recess

December 5-9
Final examination week

Winter Quarter 1978

January 3
Registration

January 4, 8:00 a.m.
Classes begin

February 20
Washington's Birthday Holiday

March 13-17
Final examination week

Spring Quarter 1978

March 27
Registration

March 28, 8:00 a.m.
Classes begin

May 29
Memorial Day Holiday

June 2-8
Final examination week

June 9
Commencement

Summer Quarter 1978

June 19-July 28
Six-Week Session

June 19-August 18
Nine-Week Session

June 19
Registration

June 20
Classes begin

July 3 and 4
Independence Day Holiday

CALENDAR

ACADEMIC YEAR COLLEGE CALENDAR 1978-79

The calendar for 1978-79 includes only dates for academic quarters. The complete calendar including holidays will be published in July, 1978.

Fall Quarter 1978

- September 25
Registration
- September 27
Classes begin
- December 11-15
Final examination week

Winter Quarter 1979

- January 8
Registration
- January 9
Classes begin
- March 19-23
Final examination

Spring Quarter 1979

- April 2
Registration
- April 3
Classes begin
- June 8-14
Final examination week
- June 15
Commencement

Summer Quarter 1979

- June 25-August 3
Six-Week Session
- June 25-August 24
Nine-Week Session

SEPTEMBER

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FEBRUARY

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THE UNIVERSITY

Western Washington State College is one of four state colleges which, along with two universities and a score of community colleges, comprise the state-supported system of higher education in Washington. These institutions have individual governing boards but work together through voluntary associations, and the State Council for Postsecondary Education to coordinate their planning and efforts to provide adequate higher education for the college population of the state.

Western Washington State College is located in Bellingham, a city of 42,000 in the northwestern corner of the state near the Canadian border. Its historical antecedent was the State Normal School established by act of the legislature in 1893, with actual operations commencing in the fall of 1899. From a normal school, the institution evolved into a degree-granting institution in 1933, College of Education in 1937, and State College in 1961.

Administratively Western Washington State College is organized into a Graduate School, a School of Education and five semi-autonomous undergraduate colleges: The College of Arts and Sciences, The College of Business and Economics, The College of Fine and Performing Arts, Fairhaven College, and Huxley College of Environmental Studies.

Accreditation

The College is fully accredited by the Northwest Association of Schools and Colleges and by the National Council for the Accreditation of Teacher Education to offer work at the bachelor's and master's degree levels. The College holds membership in the Council of Graduate Schools in the United States.

OBJECTIVES

Western Washington State College strives to provide its students with opportunities which

develop their intellectual powers, enlarge their understanding and appreciation of human heritage, and stimulate their abilities to create and share ideas. Appropriate to citizens in a free society, these facets of the liberal arts tradition continue long beyond the time students terminate their full-time college studies and provide a sound foundation for any vocation.

The College has developed a variety of strong professional programs on that foundation and strives to maintain a direct relationship between its offerings and career requirements and opportunities.

Western accepts its responsibilities for extending and transmitting knowledge, for contributing to the arts, and for making its intellectual and creative resources available to the local, state and national communities. Committed to both quality and equality, the College encourages excellence in teaching, learning, research, creativity and service; and provides equal opportunity in both education and employment.



ACADEMIC PROGRAMS AND DEGREES

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 and the sciences.

Students enrolled in Western's undergraduate and graduate programs can earn one or more of seven degrees:

- Bachelor of Arts
- Bachelor of Arts in Education
- Bachelor of Fine Arts
- Bachelor of Science
- Master of Arts
- Master of Education
- Master of Science

Details concerning Western's undergraduate and graduate programs and degrees are provided elsewhere in this catalog.

RESEARCH

At Western, faculty research and the training of students in scientific and scholarly methods and techniques have received considerable impetus through foundation and government grants. Awards have been made by a wide range of agencies and foundations, including the National



Science Foundation, the U.S. Office of Education, the Atomic Energy Commission, the Office of Economic Opportunity, the Arco Foundation, the Shell Foundation, the Ford Foundation, the Rockefeller Foundation, the ESSO Foundation, the Carnegie Foundation, the U.S. Department of Interior, the U.S. Department of Commerce, and several agencies of the State of Washington, the City of Bellingham, and various Canadian provinces and universities.

The Bureau for Faculty Research has been established to encourage and coordinate faculty research and creative scholarly endeavor throughout the College. The bureau assists the faculty in obtaining funds for curricular development and research, and provides a manuscript typing service, a staff artist and research assistants.

ACADEMIC FACILITIES

The main campus and its 64 buildings occupy 210 acres along Sehome Hill overlooking Bellingham Bay and downtown Bellingham. Other College properties, such as the marine laboratory at Shannon Point near Anacortes, support regional educational and conservancy programs.

Most College facilities are new, having been renovated or constructed during recent years of rapid enrollment growth and program development. Teaching and research functions have been aided by major additions to and expansion of the library, a computer center, the educational media center and a recital hall, as well as laboratories and classrooms.

The College has on-campus residence halls and student apartments for 3,600 students.

The beautiful natural setting for the campus and its award-winning architecture make Western Washington State College a pleasant place for work and study.

The Library

The Mabel Zoe Wilson Library houses more than 600,000 items, including 350,000 volumes of cataloged books and bound periodicals, 300,000 units of microtext, and large collections of federal and state government publications, curriculum materials, pamphlets and college catalogs. The Library maintains subscriptions to over 4,000 current periodicals and newspapers.

The Library provides open stacks for its collections, together with reading and study areas, carrels and seminar rooms. The Library also maintains a branch Music Library in the Performing Arts Center which includes an extensive collection of scores and recordings, as well as books about music.

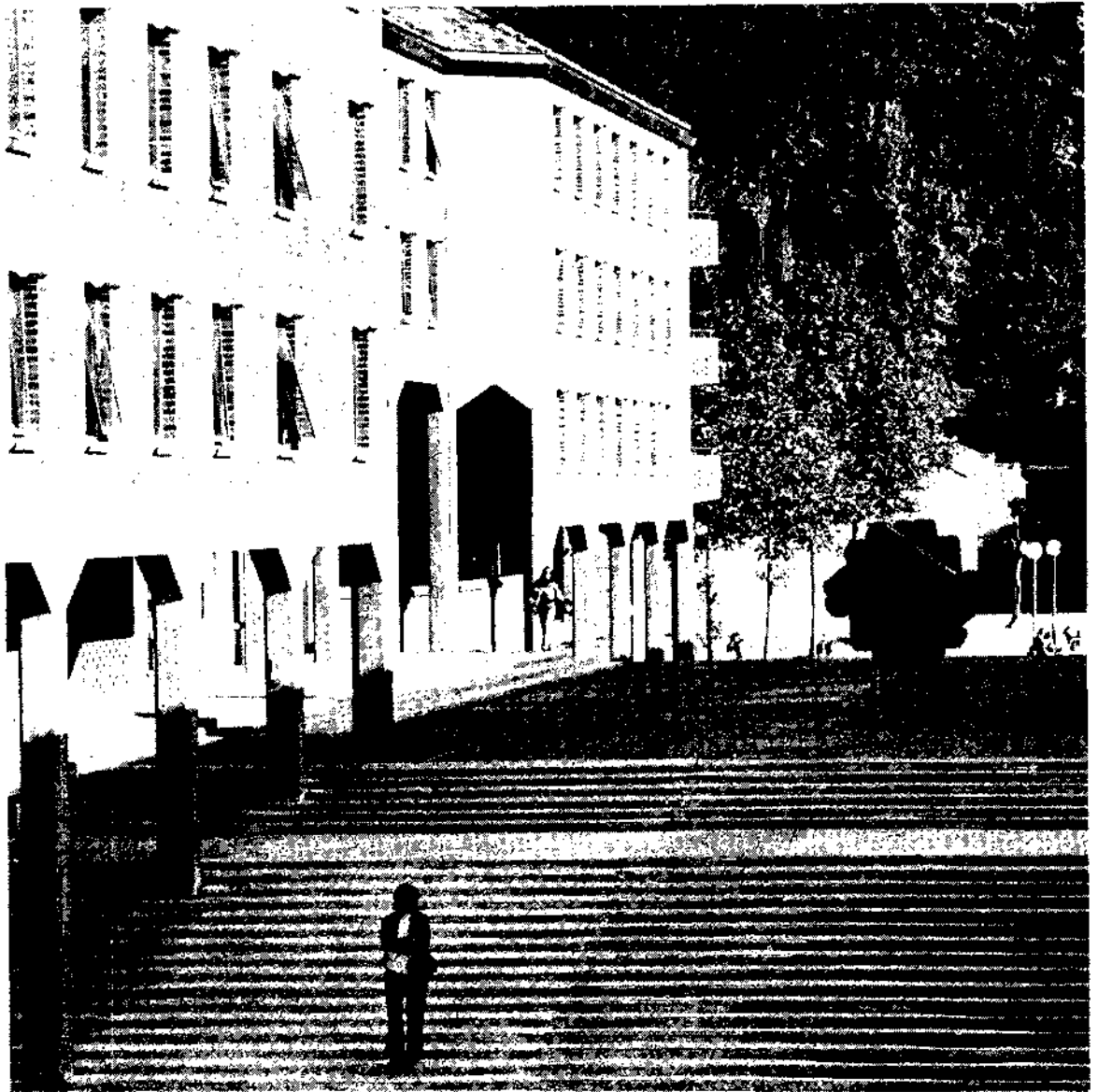
The Computer Center

The Computer Center operates IBM 360/40 and 7090 computer systems for batched punched-card computing, and three Interdata 7/32 computers supporting a network of approximately 60 interactive terminals for problem solving and computer-assisted instruction. The equipment—partly funded with National Science Foundation grants in 1962, 1968, 1974, 1975 and 1976, and a U.S. Navy gift in 1971—serves most of the instructional, research and administrative needs on campus and does instructional processing for local high schools. In addition there are Interdata 70 computers in Huxley College and in a Computer Science laboratory, three small computers in Psychology laboratories and one in the Geology Department.

Leona M. Sundquist Laboratory at Shannon Point

Located near the Washington State Ferry Terminal west of Anacortes, Washington, the Sundquist Marine Laboratory provides opportunities for undergraduate and graduate students to study the sea. The facility includes laboratories, a lecture room, research spaces and more than 50 seawater tanks useful in teaching and research. The laboratory site includes 71 wooded acres and a small lake, allowing studies beyond the marine, e.g., ecology, limnology, etc.

The Sundquist Marine Laboratory is administered by Western Washington State College on behalf of a consortium of schools including Western, Eastern and Central Washington state colleges, Skagit Valley College, and Everett and Edmonds community colleges.



ADMISSIONS

GENERAL POLICY

Western Washington State College makes every effort to provide an opportunity for higher education to all qualified applicants.

Acceptance of a student for enrollment at Western Washington State College constitutes an agreement of mutual responsibility. The student's part of this agreement is to accept established College rules and policies, to respect the laws of the city and the state, and to act in a responsible, mature manner appropriate to these laws, rules and policies. The College's part is to provide an appropriate academic atmosphere and representation for students in those matters with which they are directly concerned.

Admission standards are stated below in terms of the traditional A-F grading continuum. Students who present a number of non-traditional grades will be considered for admission on an individual basis and may be asked to submit additional evidence in support of their applications (i.e., entrance examinations, interviews and letters of recommendation).

Dates of Application for Admission

Applications and credentials for the fall quarter should be filed by September 1; application by April 1 is desirable. Completed applications should be on file by December 1 for winter quarter, March 1 for spring quarter, and June 1 for summer session.

Students may apply for admission while still enrolled in high school or other colleges. An offer of admission made on the basis of incomplete records is granted with the understanding that the student will later furnish completed records which indicate that admission requirements set forth here have been satisfied.

ADMISSION TO WESTERN'S COLLEGES AND SCHOOLS

Western Washington State College is organized into a School of Education, a Graduate School, and five colleges:

- The College of Arts and Sciences
- Fairhaven College
- Huxley College of Environmental Studies
- The College of Business and Economics
- The College of Fire and Performing Arts

Undergraduate admission requirements, policies and procedures described above and below apply to all of Western's colleges and schools.

Unless otherwise designated on application forms, qualified undergraduate students are admitted to Western's College of Arts and Sciences. Undergraduate students interested in Western's School of Education or in Western's other four colleges should note that each has additional requirements and that each selects its students on an individual basis. (Details are provided in the section entitled "Western's Schools and Colleges.")

All undergraduate students should apply for admission to Western Washington State College through the Admissions Office. Candidates for the Master's Program should apply to the Graduate School. Degree holders seeking teacher certification should apply to the Office of Fifth Year Advisement.

Each new student admitted to Western Washington State College receives additional information from the appropriate college or school.

FRESHMEN

The Uniform Undergraduate Application for Admission to Four-Year Colleges and Universities in the State of Washington is required of all freshman candidates. It may be obtained from any

Washington high school or college, or from the Admissions Office at Western.

Graduates of Washington State high schools are ordinarily admitted if their high school records indicate: (a) a cumulative grade average of at least 2.50, or (b) a ranking in the upper half of the graduating class. Students whose records do not satisfy either of these criteria may seek additional consideration from the Admissions Committee by submitting additional evidence as requested by the Director of Admissions. The College is able to grant admission to a limited number of students who can give other evidence of their ability and motivation to succeed in an academic program.

Graduates of high schools in other states are ordinarily admitted if they meet the minimum achievement standards for resident students described above, provided they also submit satisfactory scores on either the Scholastic Aptitude Test of the College Entrance Examination Board or the American College Test. Results of these tests should be sent to the Admissions Office by the CEEB or ACT.

Admission of Students Without a High School Diploma

The College welcomes applications from mature individuals who have not completed a high school program. Admission will be considered on an individual basis, and arrangements for tests and an interview may be made through the Admissions Office. Experience in other than formal educational institutions is also considered as a basis for admission.

TRANSFER STUDENTS

The Uniform Undergraduate Application is available from any Washington community college or from Western's Admissions Office. Candidates for admission as transfer students should submit this form in advance of the dates of application published above and must request that an official transcript be forwarded to the Admissions Office by *each* higher institution they have attended. A high school transcript is also required of candidates who have earned fewer than 40 transferable credits.

A transfer student in good standing at the last institution attended is ordinarily admitted if he or she: (a) satisfies requirements for freshman admission (above) and has attained a cumulative grade average of 2.00 (C) in college-level study, or (b) does not satisfy freshman admission requirements but has achieved a cumulative grade average of 2.00 based upon at least 40 transferable credits, or 2.50 on at least 25 transferable credits. The grade average used for determining admission is calculated by counting all grades earned in transferable courses.

Exceptions to these standards may be made when evidence (test scores, maturity, etc.) indicates that previous grades alone are inaccurate predictors of the student's chances for success at Western.

Transfer of Credit Policies

Students are granted advanced standing for college-level work (except sectarian religious study) completed at other accredited institutions. Students planning to transfer to Western are urged to study the academic program of the college or department of their choice in the succeeding sections of this catalog to plan carefully for appropriate course selection. Guides to parallel courses or appropriate substitutions have been supplied to counselors at all Washington community colleges and are also available in Western's Admissions Office.

Transfer credit is accepted within the limits of an institution's accreditation. College-level credits earned at a two-year community college are acceptable to a maximum of 90 quarter hours. Transfer students should note specific course requirements and recognize that such requirements, including minimum residence, must be met to obtain a degree, regardless of the amount of previous credit accepted.

Transfer students who complete the appropriate two-year degree at a Washington community college will satisfy all of Western's general college requirements upon their enrollment. Since the community colleges offer several degree programs, students should consult their adviser for more complete information.

It is normally expected that a student wishing to transfer an associate degree in the above manner will have completed all requirements for that degree before transferring. If he/she is within 15 credits of completing the associate degree and has the approval of the community college and of Western's Director of Admissions or Registrar, up to 15 credits of Western courses may be transferred retroactively in fulfillment of the degree. These credits must be earned in the first quarter of enrollment at Western and a transcript received by the middle of the second quarter.

Exceptions to the transfer of credit policies described above may be made only upon petition to the Admissions Committee. Such petitions are to be filed with the Director of Admissions after enrollment.

FORMER WWSC STUDENTS

Western students who have interrupted their studies for one or more quarters (except summer) may advance register with their class by filing an *Application for Registration* form at least two

weeks prior to advance registration. Forms are available from the Admissions Office.

Those who file their application forms after advance registration but before the quarter begins will register one day prior to the beginning of classes.

Acceptance of transfer credit earned after the student's initial admission to Western Washington State College is governed by policies applicable to transfer students.

A student who was eligible to continue at WWSC at the time of departure (either in good standing or on academic probation) is eligible for readmission. If he or she has undertaken studies at other colleges or universities since leaving WWSC, the cumulative grade average for all such study must be at least 2.00 (C) and the student must be in good standing at the last institution attended. Exceptions to these standards may be made only by the Admissions Committee, and petitions for this purpose are available in the Admissions Office. A student who was in "dropped" status at the time of departure from WWSC must be reinstated by the Academic Standing Committee. Petitions for this purpose are also available in the Admissions Office.

GRADUATE STUDENTS

For admission to graduate standing as a candidate for a master's degree, see the *Graduate Catalog*.

Candidates for fifth-year study for a standard teaching certificate or for teacher certification through special programs for graduate students apply for admission through the Office of Fifth Year Advisement, Miller Hall, WWSC.

INTERNATIONAL STUDENTS

Canadian students who qualify for admission to major universities in their home provinces are considered for admission under the same general procedures as are citizens of the United States.

A limited number of students are accepted from other countries. To be eligible, such students must have completed the university preparatory program in their own countries, give evidence of ability to succeed in college study, and demonstrate competence in use of the English language. They must also be able to pay the cost of each year they plan to study at the College. Letters from sponsors, family members, or banking officials are required in order to demonstrate sufficient finances, since the College has no financial aid available for foreign students. The Test of English as a Foreign Language (TOEFL) is required of candidates from countries in which English is not the language in general use.

SPECIAL STUDENTS AND AUDITORS

The College welcomes mature students whose occupations preclude full-time attendance. Such students may be authorized to enroll with non-matriculated (non-degree) status. Transcripts and tests are not required of such students, although they are ordinarily expected to be able to satisfy the regular admission requirements.

Permission to enroll as a special student or auditor is granted for one term at a time and implies no commitment on the part of the College regarding later admission to a degree program.

ACCEPTING AN OFFER OF ADMISSION

Each admitted student will be asked to confirm his or her intention to enroll by submitting a non-refundable, non-transferable payment on tuition and fees. This payment should not be made until requested by the College when notification of admission is received.

REQUIRED TESTS

Although test scores are not generally used in determining eligibility for admission, test data are required as an important part of the College's advisement, curricular development and research programs.

Freshmen

The Washington Pre-College Test, required of all entering freshmen who are graduates of Washington high schools, should be completed during the junior or senior year of high school. Students unable to take the test in high school will do so during orientation. (The fee is \$8.)

The Scholastic Aptitude Test of the College Entrance Examination Board or the American College Test is required of graduates of high schools from other states. Results of these tests, normally taken in December of the senior year of high school, must be received by the Admissions Office before the candidate's eligibility for admission can be determined. Since the SAT or ACT is required of non-resident freshmen, the Washington Pre-College Test need not be taken during orientation.

Transfer Students

Undergraduate transfer students who have completed fewer than 40 transferable credits at their previous colleges must either present Washington Pre-College Test scores or complete the School College Abilities Test (SCAT) during orientation. (The SCAT fee is \$1.) Transfer students who have



graduated from out-of-state high schools may submit SAT or ACT scores prior to registration.

REQUIRED HEALTH HISTORY

All new students are required to submit a health history, as well as a chest x-ray or negative tuberculin test.

Forms for these health requirements are sent to each new student who accepts an offer of admission, and the forms must be completed and returned to Western's Health Services Office before the student registers for classes.

Given the size of Western's community, the protection of immunization for new and returning students is strongly recommended and may be required at the student's expense by Western's Health Services Office.

ORIENTATION

Immediately before each fall quarter, new students may participate in orientation programs designed to introduce them to Western Washington State College.

Orientation programs provide students with opportunities:

- to explore personal, professional and academic goals,
- to learn more about Western's services, facilities and academic programs,
- to complete required tests,
- to meet faculty members, staff members and other new students,
- to begin the registration process.

HONORS PROGRAM

Freshmen are invited into the Honors Program on the basis of entrance exams, high school grade averages, and/or recommendations. Students already enrolled at Western enter the program on the above bases or may be recommended by a college instructor. See the "All-College Programs" section for additional information.

VETERANS INFORMATION

Each veteran enrolling at Western for the first time on the G.I. Bill must either apply for education benefits with the Veterans Administration or transfer his/her authorization from the last college attended. To insure that allowances are received on time, this should be done well in advance of the academic quarter the student wishes to attend. Assistance in making application is available in Western's Veterans Office.

Veterans should also make certain that the objective they plan to pursue is the one authorized by the Veterans Administration. For instance, if the authorization is for the master's degree, the veteran must enroll in courses acceptable toward that degree. Any necessary changes in objective should be made in advance of registration.

Veterans should be prepared to pay their expenses for at least two months, since the Veterans Administration sends benefit checks only at the ends of months during which students have pursued their studies.

Military Credit

For attendance at service schools recommended by the American Council on Education Publication—"A Guide to the Evaluation of Educational Experiences in the Armed Services"—a maximum of 30 undergraduate quarter hours is allowed prior to issuance of the first degree.

REGISTRATION

The Registrar's Office works closely with the faculty to develop schedules of courses which serve the needs and interests of Western's students. For the convenience of students and for facilitating academic advising and scheduling, the process of registering for courses at Western has been divided into four parts:

CONTINUING STUDENT REGISTRATION

At mid-term during the fall, winter and spring quarters, students at Western are given an opportunity to advance register for their next quarter's courses. This opportunity enables current students to select their courses early and provides Western's faculty and Registrar's Office with information about the courses for which they should attempt to schedule additional sections.



Each student who advance registers is mailed a statement for fees, together with an addressed envelope in which to submit payment. Because advance registration reserves a student's place in a course, if payment is not received by the specified date prior to the beginning of the next quarter's courses, the student's registration is canceled.

NEW STUDENT REGISTRATION

The first day of each quarter at Western is for registration. (See the College Calendars at the front of this General Catalog.) On that day new students and continuing students who did not advance register sign up for their courses and pay their fees. Before that day, each new student should have received additional information and instructions, including a date for his or her academic advisement and program planning conference.

LATE REGISTRATION

Because entering a course late may reduce the student's level of achievement, late registration is permitted only in exceptional cases. After the first five days of instruction in any quarter, a student may register for and enter a course only (a) by obtaining written permission from the course instructor, the department chairperson and the Registrar, and (b) by paying the late registration fee.

CHANGES IN REGISTRATION

Policies concerning changes in registration, such as withdrawal from a course or from the College, are described in the section entitled "All-College Academic Policies."

FINANCES

At Western the various expenses of a student who is single and a resident of the State of Washington are about \$1,000 each quarter:

Approximate Quarterly Expenses

Tuition and Fees	\$197/206
Room and Board	\$ 515
Books and Supplies	60
Personal Expenses	255

Below are actual costs of various College expenses for several student categories and brief descriptions of the financial assistance available at Western through the Financial Aid Office. (Room and board costs at Western are listed under the section entitled "Housing and Dining.")

TUITION AND FEES

(Fees are subject to change as the result of action by the State Legislature or the Board of Trustees.)

Quarterly Charges- Full-Time Students

(Students registering for ten or more credits pay full fees.)

1977-78

<i>Student Classification</i>	<i>Quarterly Total</i>
Southeast Asian Veteran*	\$ 153
Resident, ¹ General	197
Non-Resident, General	661
Resident, ¹ Graduate Degree	217
Non-Resident, Graduate Degree	752

1978-79

<i>Student Classification</i>	<i>Quarterly Total</i>
Southeast Asian Veteran*	\$ 162
Resident, ¹ General	206
Non-Resident, General	661
Resident, ¹ Graduate Degree	228
Non-Resident, Graduate Degree	752

Quarterly Charges--Part-Time Students

Two quarter credit minimum.

(Students enrolling for a maximum of nine credits.)

1977-78

For each credit:

General	\$ 20.00
Graduate Degree	22.00
Southeast Asian Veteran*	15.00

1978-79

For each credit:

General	\$ 21.00
Graduate Degree	23.00
Southeast Asian Veteran*	16.00

¹Residency—Washington State law on residence classification requires that a student be domiciled (i.e., physically present with the intent to remain) in the State of Washington for one year immediately prior to the beginning of the quarter for which he or she claims the right to pay resident tuition and fees. In addition, he or she must have established domicile in the state for other than educational purposes. Regardless of age or domicile, the following are entitled to pay resident tuition and fees: any person employed not less than 20 hours per week at a Washington public institution of higher education and the children and spouse; military personnel and federal employees residing or stationed in the State of Washington and their children and spouses; and any veteran whose final permanent duty station was in the State of Washington, so long as such veteran is receiving federal vocational or educational benefits conferred by virtue of his or her military service.

Students enrolled in undergraduate programs who are residents of the Province of British Columbia pay the same tuition and fees as Washington residents.

*For Washington residents only.

Auditors

Without credit, each course \$10.00

Full-time students may audit a course without an additional fee; part-time students may audit courses by paying the auditor's fee additionally.

Continuing Education

1977-78

For each off-campus credit:

General	\$ 20.00
Graduate Degree	22.00
Southeast Asian Veteran*	15.00

1978-79

For each off-campus credit:

General	\$ 21.00
Graduate Degree	23.00
Southeast Asian Veteran*	16.00

Fees for courses which are offered on a self-sustaining basis are in addition to other fees paid to the College. Such courses are clearly identified in the Continuing Education Bulletin.

DESCRIPTION OF TUITION AND FEES

1977-78

	Tuition	Service & Activities Fee	Operations Fee
Resident, General	\$25	\$54	\$118
Non-Resident, General	96	54	511
Resident, Graduate	25	54	138
Non-Resident, Graduate	96	54	602
Southeast Asian Veteran	25	54	74

1978-79

	Tuition	Service & Activities Fee	Operations Fee
Resident, General	\$25	\$54	\$127
Non-Resident, General	96	54	511
Resident, Graduate	25	54	149
Non-Resident, Graduate	96	54	602
Southeast Asian Veteran	\$25	54	83

Tuition is used for the construction of academic facilities. It is not used for either Housing and Dining System buildings or support of the College'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 Associate Students administration; and to support student activities (theatre, forensics, musical activities, intramural and intercollegiate athletics, etc.).

The Operations Fee, with the state's general fund appropriation, is used to support the instruction, library, student services, administration and maintenance functions of the College.

MISCELLANEOUS SERVICE CHARGES

Parking

(For parking and traffic regulations, see Appendix F.)

*Quarterly Total***

On-campus parking	\$18
Peripheral parking	\$4-\$8
Motorcycle parking	\$1.50

Late Course Adds

A fee of \$5 is charged if a student adds a class after the first five days of instruction in a quarter. Late course adds require written permission of both the class instructor and the department chairman.

Fees for Required Tests

Freshmen who have not submitted appropriate examination results will complete the Washington Pre-College Test at a fee of \$8. Transfer students without appropriate test results will complete the School and College Abilities Test (SCAT) at a fee of \$1.

Special Examination Charge

Those who seek college credit through examination pay \$2 per credit.

Graduation Fees

Baccalaureate Degree	\$ 8.00
Master's Degree	5.00
Placement Service fee for student with Prior degree who earns teaching certificate only	2.00
Provisional Teaching Certificate	10.00
Standard Teaching Certificate	10.00

(Fees for teaching certificates are set by the State of Washington and are in addition to the graduation fees.)

Music Rentals

Pipe organ, other instrument, or practice space rental costs \$2 per quarter.

*For Washington residents only.

**Estimated at time of printing.

Transcripts

A reasonable number of transcripts will be issued free of charge. Requests should be submitted to the Registrar's Office one week in advance of need.

REFUNDS OF FEES

In ordinary circumstances, a student who withdraws before the sixth day of instruction in a quarter receives full refund of tuition and fees, except for the initial registration deposit required of new students.

A refund of one-half of tuition and fees is made to a student who withdraws on or after the sixth day of instruction, provided such withdrawal occurs within the first 30 calendar days following the first day of instruction. After the 30th day, no refunds are granted.

Note: The first \$50 of tuition and fees paid by newly admitted students, whether paid as a separate deposit to accept an offer of admission or as a part of total fees at the beginning of a quarter, is non-refundable.

Change in Student Status

A student who has paid part-time fees and who adds classes bringing the total credits to ten or more will pay the balance between fees already paid and the full-time fee. A full-time student who drops classes so that the remaining total of credits is nine or less will receive a refund of (a) the difference between the full and part-time fees if the change is made before the sixth day of instruction, or (b) one-half the difference if the change is made from the sixth day of instruction through the thirtieth calendar day following the first day of instruction.



FINANCIAL AID

Western Washington State College makes every effort to provide financial assistance to eligible applicants through loans, work, scholarships, grants, or some combination of these and other student aid programs. It is expected, however, that students will meet part of their needs through savings from summer employment and that parents will contribute in proportion to their financial ability.

The limited funds available at Western for student aid programs are used to assist students whose attendance seems educationally sound and whose attendance would be impossible without such assistance.

TYPES OF FINANCIAL AID

A student who applies for financial aid at WWSC is considered for a variety of federal, state and/or institutional programs. Applications are evaluated to determine each student's need, and awards are made with careful adherence to federal, state and institutional guidelines. Consideration can be given only to citizens of the United States or students residing in the U.S. on permanent visas.

Grants are available only to *undergraduate students* who demonstrate exceptional financial need. Grants are awarded as gift aid; repayment is not required.

Basic Educational Opportunity Grant (BEOG). All undergraduate students are eligible to apply for the federal BEOG. It is intended to be the foundation of a financial aid package and may be combined with other forms of aid in order to meet educational costs.

Supplemental Educational Opportunity Grant (SEOG). The federal SEOG may not exceed more than one-half of the total assistance given to a

student; therefore, such grants must be matched with institutionally administered loans, scholarships or employment.

State Need Grant. The State of Washington offers State Need Grants to needy and disadvantaged students who are residents of this state. All eligible students will be nominated for selection by the State Council for Postsecondary Education. To be considered for nomination, students must provide parents' income information unless they can demonstrate that they have been self-supporting or financially independent for at least five years.

Tuition and Fee Waivers are available only to needy students who are residents of the State of Washington.

Work-Study Programs (State and Federal). Students, particularly those with great financial need, may be offered part-time employment under work-study programs. On-campus jobs are available in nearly every academic area, as well as in the student union, library, computer center, administrative offices, maintenance department, and other campus agencies. Off-campus jobs in the Bellingham area are available with such public or non-profit organizations as youth clubs, day-care centers, the park department, school districts, and recreation clubs.

National Direct Student Loans are long-term, low-interest loans available to undergraduate and graduate students at WWSC. The size of the loan granted depends upon the applicant's eligibility and the funds available at WWSC.

Interest does not accrue and repayment does not begin until nine consecutive months following a student's enrollment on at least a half-time basis. Loans bear interest at the rate of three per cent per year, and repayment of the principal may be extended over a 10-year period, with a minimum payment of \$30 per month.

Repayment may be deferred for three years while the borrower is in graduate school, the Armed Forces, Peace Corps, or Vista. Borrowers may receive partial cancellation of indebtedness through service in certain types of teaching or in the U.S. Military.

WWSC Scholarships. Two categories of scholarships are available:

- Academic scholarships may be awarded to entering freshmen, transfer students, and returning students in recognition of outstanding scholarship.
- Designated scholarships are awarded to students in specific majors or departments.

Entering freshmen are urged to explore scholarship opportunities from their home-town organizations with the aid of their high school counselors. A list of Western's designated scholarships is available from the Student Financial Aid Office.

HOW TO APPLY FOR FINANCIAL AID

To be considered for the financial aid programs described above, the following application materials must be submitted: Basic Educational Opportunity Grant application (available at high schools, post offices and colleges); Financial Aid Form, College Scholarship Service Confidential Statement (available at high schools and colleges); and the WWSC Financial Aid Application (available from WWSC's Student Financial Aid Office).

Applications should cover either a three-quarter academic year (October 1 to June 15) or a single quarter. To insure first consideration for available funds, application materials must be received by the Student Financial Aid Office by April 1. Application materials received after April 1 receive full consideration, but funding opportunities are fewer.

SUMMER SESSION AID

Financial aid applications for summer session attendance are accepted only from students enrolled during the previous quarter. Priority is given to students who must attend in order to graduate in August.

OTHER ASSISTANCE AVAILABLE AT WWSC

Federally Insured Student Loan (FISL). Graduate and undergraduate students are eligible to borrow through this federal program provided that they are enrolled at Western, or have been accepted for enrollment, at least half-time. Students apply for FISL loans through the College to participating banks or credit unions. The application process



takes approximately eight weeks, and application forms are available from Western's Student Financial Aid Office.

Repayment begins nine months after the student leaves school and may be deferred while the borrower is in graduate school, the Armed Forces, Peace Corps or Vista. Monthly payments are \$30 or more. Seven per cent simple interest per year is charged beginning at the time the loan is granted; however, the federal government may pay the interest while the student is in school and during the deferred payment period.

Part-Time Employment. The Student Employment Center, a division of the Student Financial Aid Office, provides information and assistance to students seeking part-time employment, either on or off campus.

On-Campus Employment. Many students are successful in obtaining part-time jobs in Western's academic and administrative units after they arrive on campus. Since advance employment cannot be guaranteed, Western's Student Financial Aid Office does not accept advance applications for on-campus jobs; the office does provide information and assistance to students after they arrive on campus.

Off-Campus Employment. The Student Financial Aid Office provides Western's students with information about part-time jobs listed by local employers and by the local State Employment Security Office. Such jobs are few, however, and students should not anticipate meeting a significant portion of their college expenses with earnings from part-time, off-campus employment.

Graduate Assistantships in limited numbers are available to qualified graduate students. Inquiries should be addressed to the Dean of the Graduate School.

HOUSING & DINING

Western Washington State College maintains a wide variety of housing accommodations for its students. There are residence halls for single men, single women and coed living accommodations. The College also has apartments for single and married students. Assignments to on-campus housing and listings of off-campus housing accommodations are made without reference to race, age, marital status, creed or national origin.

The College does not maintain regulations about where students must live. However, students are encouraged to investigate housing accommodations thoroughly to assure conditions which promote their academic and personal development.

COLLEGE RESIDENCE HALLS AND DINING HALLS

Rooms are generally for double occupancy, and each is furnished with single beds, mattresses and pads, desks, desk lamps, telephone, TV cable, and a wardrobe or closet. The occupant furnishes pillow and case, sheets, blankets, towels, alarm clocks and other personal necessities. Electric open-element appliances are not permitted in student rooms.

Kitchenette and laundry facilities are provided in central areas. A recreation room, reception area, lounge, special study rooms, vending machines, extra storage space for trunks, and bike racks are provided in each hall. In addition, some halls have saunas, pool tables and other recreational facilities.

Three dining halls are located close to the residence halls. Students living in residence halls must take their meals in the dining halls, all of which are coeducational and serve 21 meals per week plus special dinners and banquets. No meals are served during vacation periods.

Reservations for accommodations in the residence halls are made by sending a completed application

to the Director of Housing, Western Washington State College, Bellingham, Washington 98225. *No deposit is required with the application.* Applications will be accepted only if the student meets one of the following conditions:

1. He or she has been admitted to the College as a new student and has prepaid the advance registration fee.
2. He or she is presently enrolled or has previously been enrolled at Western Washington State College.

Space in residence halls is assigned according to the date of receipt of the application for room in a hall. The room assignment is made when the student moves in. Official assignments are made by mid-June for fall quarter and one month prior to the beginning of other quarters.

Cancellations and Refunds

Students making application and later deciding they do not want accommodations must cancel reservations by notifying the Director of Housing in writing prior to acceptance of a residence hall assignment.

In accepting an assignment to a residence hall, each assignee agrees to the Conditions of Occupancy and makes a security deposit of \$50. Deadlines for the payments are July 1 for fall quarter, or two weeks after the assignment is made. The \$50 security deposit will be retained by the College as a damage and/or reservation deposit as long as the student lives in the Housing system.

Once the payment of the security deposit is made, cancellation of a reservation cannot be made without penalty. Cancellations received after the payment is made—but prior to August 1 for fall quarter, December 1 for winter quarter and February 15 for spring quarter—will result in a forfeiture of \$20. Cancellations made between

August 1 and September 15 for fall quarter, between December 1 and December 20 for winter quarter, or between February 15 and March 5 for spring quarter will result in a forfeiture of \$40. Cancellations made after the above stated deadlines will result in forfeiture of the entire \$50 deposit unless, because of unusual circumstances, a refund is granted by the Director of Housing.

Charges for damage to or loss of residence hall property in the custody of the student or for damage to the hall premises will be billed to the student or withheld from refunds.

If a student is found ineligible for admission to the College, the entire deposit will be refunded.

APARTMENTS FOR SINGLE AND MARRIED STUDENTS

Birnam Wood consists of 132 apartments for 532 students on a wooded seven-acre site near the campus. Each apartment has a living room, dining room, kitchen, outside deck, two-compartment bath, storage room, and two bedrooms furnished for four students with the usual furnishings, drapes and wall-to-wall carpeting. Utilities are provided as well as telephone service, television-FM cable and parking.

Assignments to the single apartments are made by date of application, preference being given to older students, those with advanced class standing, those presently living on campus, and groups of four persons. A \$100 deposit is required on each apartment when assignments are made.

Buchanan Towers, located at the south end of the campus, is an eight-floor residence hall which houses 404 students in one- and two-bedroom apartments. Each standard unit has a living-dining-kitchen area, two large bedrooms and a bathroom. The lower floor has a recreation area and central lobby. Furnishings, utilities, telephone service, television cable and extra storage space is provided at no additional cost.

Bakerview Mobile Homes owned by the College are located on a wooded site seven miles north of the campus. All units are unfurnished, and tenants must pay for some utilities.

QUIET HALL

One large coed hall has been established as a quiet hall where quiet hours are set and respected by all residents. (Students in other halls often elect to make a wing or floor quiet also.)

COOPERATIVE HALLS

Several small dormitory buildings at Western's

Fairhaven College are co-ops where 25 to 35 students prepare their own food in a central kitchen and share cooking, cleanup, budgeting, and purchasing responsibilities.

LIVING COSTS

The following rates for multiple room and board are in effect for the 1977-78 academic year:

Double room and 21 meals per week, academic year	\$1,466
Double room and 15 meals per week, academic year	\$1,444
Double room and 10 meals per week, academic year	\$1,401

Quarterly rates are slightly higher.

Breakfast, lunch and dinner are served seven days per week in the dining halls. Students may take 10, 15 or all 21 of their meals in the dining halls each week. Meal tickets are good seven days per week.

Future rates may be slightly higher because of inflationary factors. All rates are available from the Housing Office upon request.

Apartment rates for 1977-78 are as follows:

Birnam Wood

Furnished two-bedroom unit with all utilities:
Quarterly Cost

Buchanan Towers

Furnished two-bedroom unit with all utilities:
Quarterly Cost

Bakerview Mobile Homes

Unfurnished two-bedroom unit without facilities:
Per month

Other rates and facilities are developed each year to meet student requests for other varieties of housing. Updated information may be requested from the Housing Office at any time.

For more information about housing and dining on campus, write the Director of Housing and Dining, Western Washington State College, Bellingham, Washington 98225.

OFF-CAMPUS HOUSING

The Off-Campus Housing Listing Service maintains lists of available off-campus rentals. Because of constant changes in availability, these lists are not printed for mailing. Off-campus rentals are in great demand, and it is to the student's advantage to arrive in Bellingham prior to the start of the quarter to make living arrangements. Although the Listing Service does not make individual rental

agreements or assume responsibility for the condition or suitability of listings, it offers helpful information on renters' insurance and contracts with landlords, as well as a guide book for renters and a mediation service for disputes between tenants and landlords.

Information about off-campus listings is available by writing the Off-Campus Housing Listing Service, High Street Hall, Western Washington State College, Bellingham, Washington 98225.



STUDENT AFFAIRS

Western Washington State College considers that its responsibilities to students extend beyond good instruction and instructional facilities.

Western's Student Affairs staff offer services designed to help each student become increasingly aware of his or her potential and increasingly able to take advantage of the College's diverse learning opportunities. These services include financial assistance; preventing and diagnosing illness; helping students explore alternative career options; providing a broad range of co-curricular learning experiences—many of them initiated and administered by students—including entertainment, educational, and social activities in residence halls, the Viking Union, and off campus; services for handicapped students; enhancing the experiences of minority students; advising students who have not yet declared a major; job placement; and counseling for students having trouble coping with problems and pressures.

Many of these services are described briefly below.

STUDENT AFFAIRS OFFICE

Any student unsure about how to resolve an academic or personal problem is welcome to see one of the Associate or Assistant Deans in the Student Affairs Office. Students unable to attend classes for an extended time period due to extenuating circumstances may be placed on leave of absence at the student's request.

New students and students who have not declared majors may obtain academic advisement from the Assistant Dean of Students for Academic Affairs and from the Academic Information Center, which is staffed by knowledgeable students. These people, located in the Student Affairs Office, can answer academic questions, assist students in selecting their majors, help students make course selections and utilize special academic opportunities, and refer students to other academic and

administrative staff. A course content catalog providing more detailed information about many current courses is available in the Academic Information Center.

Since Western's several colleges and schools offer academic advisement, students should also review the sections of this General Catalog which are pertinent to the college or school of their choice and contact appropriate individuals and offices about academic concerns.

Educationally-disadvantaged students are offered tutorial services, academic advisement, and peer-group counseling through the Assistant Dean of Students for Minority Affairs. Located in the Student Affairs Office, the Assistant Dean is concerned with improvement of basic reading and writing skills and offers assistance in those skill areas, including tutors without charge; recruits ethnic minority students, both undergraduate and graduate; and assists on-campus ethnic student organizations.

Physically-handicapped students may obtain readers, note-takers, and tutors; career choice and placement counseling; volunteer job experience; part-time employment; academic and personal advisement; and liaison with such state agencies as Vocational Rehabilitation and State Services for the Blind through the Student Affairs Office. The study rooms of Western's library contain tape recorders, record players, braille dictionaries, and special devices for magnifying print. Individuals desiring special instruction in swimming or physical exercise may contact the Physical Education Department for assistance.

International students may obtain academic and personal advisement from the Student Affairs Office. To enable international students to become acquainted with people in the community, the Student Affairs Office also arranges Host Family and Brother/Sister Programs.

DAY CARE FACILITIES

The College Cooperative Day Care Center, a student/parent cooperative operated in Western's Fairhaven College buildings, serves children of student parents from 7:30 a.m. to 5:30 p.m. on the days Western is in session. Children from two through five years of age may be enrolled. To join, members pay a \$20 fee; quarterly fees after joining include \$150 (for low-income families, \$120) for the first child and one-half the quarterly fee for all additional children. In addition to these payments, each member works five hours per week at the Co-op Day Care Center.

More information about day-care facilities on campus and in Bellingham may be obtained from the Associate Dean in the Student Affairs Office.

STUDENT COUNSELING CENTER

The Counseling Center aids students to become more effective and productive persons so that they might attain greater benefit from their college education. Professionally trained clinical and counseling psychologists, the staff provides services to improve decision making when social, educational, vocational, personal, and marital conflicts arise. While it is usually necessary to make an appointment a few days in advance, a student will be seen without delay in emergencies. The Counseling Center is located in Miller Hall, Room 262. It is open daily from 8 a.m. to 5 p.m.

HEALTH SERVICES

Good health is recognized as essential for students to derive the maximum benefit from their time at Western. Health care provided by the Health Service includes treatment of acute problems, preventive health measures, and health education.

The Health Service is located on the ground floor of Edens Hall. Its staff consists of physicians, registered nurses, and receptionists. The Health Service is open weekdays from 8:30 to 11 a.m. and from 1 to 4 p.m. At other times between 8 a.m. and 5 p.m., urgent problems will be seen. Any student needing medical care should go directly to the Health Service. Appointments with the doctor are made by the nurse when the student arrives at the Health Service office. No appointments are made by phone.

Care provided at the Health Service includes those problems generally treated in a medical office. Students with more complicated conditions are referred to appropriate care in Bellingham or in the student's home community. (Health insurance is a wise provision to obtain to help cover costs of referrals and/or lab work.) Individual and group

health care advice—for example, diet, weight control, preventive health advice—is also available.

At times when the Health Service is closed, the Whatcom Emergency Service at St. Luke's Hospital is available for urgent care needs. Note: the College assumes no financial responsibility for care dispensed at the hospital emergency room. Students who engage this service must plan to use private or health insurance funds to cover expenses.

A health care package--the Student Health Service plus a dovetailed Supplemental Health Care Plan through Whatcom County Physician's Service (local Blue Shield plan)--is now available to students. Careful consideration of this health care package is suggested for each enrolling student. Sign-up time is at registration. The cost is exceedingly low compared with plans offering similar coverage. (See the brochure which describes benefits.)

All new or transfer students, including graduate students, must submit a medical inventory health form which includes:

- (a) A health history completed and signed by the student;
- (b) A negative tuberculin skin test or chest x-ray documented by a physician or health department.

Both of the above must be on file at the Health Service before the student receives registration privileges. While it is *not* mandatory, the Health Service strongly encourages a complete physical examination by your physician if this has not been done recently.

Medical Leaves of Absence

Students are encouraged to discuss absence from courses for medical reasons with their instructors.

All medical leaves of absence are issued through the Health Service, where the student must be seen by a nurse or physician to obtain a leave. If an accident or emergency illness requires the student's absence, he or she may be placed on leave by telephoning the Health Service regarding the medical problem and furnishing course schedules, course sections, and instructors' names.

Verifications of medical leave of absence are mailed to each instructor, the Student Affairs Office, the Registrar, the student and any other office designated by the student.

RESIDENCE HALL PROGRAMS

The staff of the Office of Residence Hall Programs provides a broad variety of educational programs for students who live in campus housing facilities. Professional staff and student staff members assist

students through personal counseling, activity planning and improvement of the on-campus living experience; they also work directly with student leaders and other college personnel to provide out-of-class learning experiences in leadership, program planning and evaluation, career and life planning, and general college community involvement.

Resident students may become directly involved with the implementation of hall programs through three primary avenues. *Residence hall staff positions* are available each year to students who demonstrate an ability to work effectively with others in activity planning and para-professional advising. Student leadership experience through *membership on the Inter-Hall Council* is another avenue for contributing to a healthy on-campus living environment. Students may also obtain *membership on residence hall governing boards, campus committees, or special activity task forces*. All of these opportunities provide practical leadership experiences, as well as student involvement in the shaping of a total program of residence education.

STUDENT ACTIVITIES

The program of Student Activities at Western is designed to provide maximum opportunity for student participation in a wide range of co-curricular experiences. Student Activities are in no sense incidental in the plans of the College; rather they are integral and highly important parts of the total range of educational experiences offered by the College. Students are encouraged to become involved in some aspect of the activity program since these activities provide educational and social experiences usually unavailable in classroom situations.

Many student activities are initiated and administered by students themselves through the Associated Students. Students may participate in the governing bodies of student-administered services, activities, and facilities not only to help determine the quality of co-curricular life, but also to gain administrative experience. Students may also participate in the All-College Senate governance systems as elected or appointed members of the Senate and its councils and committees.

Opportunities to serve fellow students and to develop skills in a para-professional capacity are available in a wide variety of student-provided services. These include drug, legal, sex, and environmental information services; minority children tutorial projects; a student newsletter; and a Cooperative Day Care Center.

Program Commission

From rock to Rembrandt, the Associated Students Program Commission coordinates and presents a

large part of Western's entertaining, educational, and social activities. Weekly films, art exhibits, coffee houses, dances, symposiums, and festivals are regularly provided by the Program Commission. In addition it presents concerts and speakers such as Joan Baez, Randy Newman, Maria Muldaur, Ralph Nader, Stewart Brand, George Benson, John Klemmer, James Cotton, Daniel Ellsberg, Bonnie Raitt, Chuck Mangione, and Esther Satterfield—all of whom have appeared at Western recently.

FM Radio

KUGS, at 89.6 on the FM dial, is Western's student-managed radio station. With a complete range of music, news, and educational programming, KUGS offers students opportunities for participation as engineers, disc jockeys, news-writers and managers.

Outdoor Program

Taking full advantage of the beautiful and varied country of northwest Washington, the Outdoor Program functions as a catalyst and resource center for hiking, ski touring, mountaineering, snow-shoing, rock-climbing, bicycling, backpacking, river rafting, camping, sailing, canoeing, kayaking and many other activities. Included in the never-empty Outdoor Program Center are equipment rentals, environmental, map and outdoor libraries, sign-up sheets for trips, informal classes, and many special events for both beginners and experts.

Club Sports

Competition and/or involvement is offered through the Club Sports program of the Associated Students in rugby, soccer, sailing, chess, bridge, archery, lacrosse, fencing, scuba, karate, water skiing, swimming, water polo, and indoor recreational games. All of these clubs offer instruction.

Special Interest Groups

Special interest organizations offer involvement in a wide range of activities. More than fifty different organizations exist within the Associated Students including groups such as the Ethnic Unions, International Club, Cheerleaders, Radio Club, Women's Center, Society of Automotive Engineers, History Club, Wilderness Preservation Union, Fellowship of Reconciliation and Society of Plastic Engineers. Many religious clubs also function at Western.

Departmentally Related Activities

Intramurals, athletics, forensics, theater/dance, music, performances, and publications play an important part in the College activity program. Faculty from appropriate departments work closely with these student activities, but students need not be affiliated with the departments to participate. Students may receive credit for participation in most of these activities. The comprehensive Intramural Program, coordinated by the Physical Education Department, includes many individual and group sports, through which students enjoy physical exercise and develop skills for leisure-time activities.

Intercollegiate Athletics

Intercollegiate athletics involve many students as participants and spectators. Men's sports include football, basketball, track, cross country, tennis, baseball, golf, wrestling and crew. Women's sports include cross country, field hockey, volleyball, basketball, tennis, and track and field. The College is a member of the Evergreen Conference and the Northwest College Women's Sports Association.

Forensics and Theater

The Forensics Program offers opportunities for developing new interests and skills through tournaments ranging from local, low-key competitions to the National Debate Tournament. The Theater/Dance Program continues throughout the regular academic year and summer. Experience in all phases of theater/dance activities is available.



Music Activities

Performing in a Music Department group is an activity open to all students whether or not they wish academic credit and whether or not they are music majors. Groups include band, orchestra, choir and opera, as well as stage band, jazz ensembles, a wide range of vocal ensembles and all varieties of chamber music.

Publications

Publications include the Western Front, a twice-weekly newspaper; Klipsun, a twice-quarterly magazine; and Jeopardy, the annual literary magazine. Student input is essential, and new students at all academic levels are encouraged to join the staffs each quarter. Students may receive credit for working on these publications through the English and Journalism departments.

Viking Union

As the community center of the campus, the Viking Union is designed to play an integral role in the co-curricular program. The Union houses offices for the Associated Students' government, services, and activities; the College newspaper; and the Viking Union/Student Activities administrative offices. Also located in the Union are meeting rooms, lounges, a music listening room, printshop, outdoor equipment rental shop, several food service areas, an information center/smokeshop, a delicatessen, commercial banking facility, art gallery, games room, and a vending area.

Recreational Opportunities

Recreational facilities available to the college community include Lakewood, an eight-acre site on Lake Whatcom, operated by the Associated Students, which offers sailing, canoeing, swimming, boating, and picnicking. The Associated Students also operate Kulshan Cabin, located at timberline on Mt. Baker, under a permit from the U.S. Forest Service. The cabin serves as a base camp for climbing in the area, as well as a destination for day hikes in the Cascades. In addition, Viqueen Lodge, on a 13-acre tract on Sinclair Island and operated by the Women's Recreation Association, offers overnight accommodations at the entrance to the San Juan and Gulf islands.

CAREER PLANNING AND PLACEMENT CENTER

Western's Career Planning and Placement Center focuses on the full career continuum from



planning to placement. Major services of the Center include student self-assessment, analysis of job market information, how to make career choices, how to translate career choices into educational goals, how to obtain appointments with employers, and how to become employed.

All of Western's students—regardless of degree, school, or college—are urged to seek and use the services of the Center *early* in their college programs.

Career Planning Services Available to All Students

The Center maintains a comprehensive library of career and job trend information, including general career planning information, relationships of academic majors to occupational areas, and labor market trends and needs. In addition, the Center's staff assists students in exploring their interests and abilities as these relate to their academic programs and vocational planning.

Students are encouraged to become acquainted with the Center's library and staff no later than their sophomore year at Western.

Services Available to Prospective Graduates Ready for Job Placement

Prospective graduates are encouraged to register formally and to establish a file of credentials with the Center during the first quarter of their senior

year. It is each student's responsibility to start a file and to keep it current.

Students seeking degrees in education also need to initiate their requests for a teaching certificate by obtaining the Combined Major or Minor Approval and Teaching Recommendation from the Center.

When current credentials are on file in the Center, students are eligible to participate in on-campus interviews, to review job notifications, and to use special aids in contacting potential employers. Credentials may also be used to facilitate entry into graduate schools.

Alumni of Western and Graduates of Other Institutions

Alumni may obtain placement services if they wish to activate their credentials. Graduates of other institutions working toward advanced degrees and certificates or who have 30 or more credits may also use the Center's placement services.

Western's Career Planning and Placement Center subscribes to an open-door recruitment policy and operates under federal and state non-discrimination statutes.

STUDENT RIGHTS AND RESPONSIBILITIES

The complete text of the Guide to Student Rights and Responsibilities is included as Appendix B at the back of this catalog.

UNIVERSITY ACADEMIC POLICIES

Western's academic policies have been developed to guide students, faculty, and administrators and to assure consistent procedures in their mutual academic concerns. The policies described below pertain to all of Western's academic units.

ADVANCED PLACEMENT AND COURSE CHALLENGE

A regularly enrolled full-fee paying student may apply to challenge any course (except conferences, special projects, and physical education activities courses), and if achievement commensurate with the expectations of a given course is demonstrated, the student receives credit for the course. Such achievement may be demonstrated by:

College Entrance Examination Board Advance Placement Examinations in certain subjects. The department concerned determines the minimum acceptable score.

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 for the preceding course; admission to the advanced course is subject to permission of the department.

Challenge examination or procedures prepared by the department concerned.

The following regulations govern course challenges:

1. Students desiring to challenge a course should apply to the College Examiner by the fourth week of the quarter. The time and procedure to be followed in completing the evaluative process will be announced by the Examiner. A fee of \$2 per credit is charged.
2. The result of the challenge is recorded as "Satisfactory" or "Unsatisfactory" on the student's permanent record and is not used in computing grade point averages.

3. The challenge application will normally be denied:
 - (a) if the student is currently enrolled in the course;
 - (b) if the student has previously established credit for a similar course at this or another college;
 - (c) if the student has previously failed the course;
 - (d) if the student has previously challenged the course and failed;
 - (e) if the student has previously audited the course;
 - (f) if, in the judgment of the College Examiner, in consultation with the department concerned, the challenge procedure is inappropriate.

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
500-599	graduate student courses
600-699	post-master's degree courses

Students are not permitted to take courses more than one year above their class standings except in unusual circumstances.

The numbers 300, 400, and 500 are used to designate individual study, conference courses, or special project work in a given field. Such courses are available only through prior arrangement with the instructor and with the approval of the department chairman.

Any undergraduate student wishing to enroll in a course numbered 500 or higher must obtain the written approval of the Dean of the Graduate School. (See *Graduate Catalog*.)

The numbers 197, 297, 397, 497 and 597 are reserved for experimental courses generally offered only once. The number 445 is reserved for topics showing "Current Trends." The number 417 is for seminars in specialized areas of interest.

Courses listed in this general catalog constitute a record of the total academic program of the College. Except for unforeseen scheduling and personnel circumstances, it is expected that each course will be offered during the period of this catalog. For an exact scheduling of courses at Western, students should consult the annual course schedule, the summer catalog and bulletins for the Center for Continuing Education.

PREREQUISITE WAIVER FOR RETURNING TEACHERS/ POST-BACCALAUREATE STUDENTS

All students who have a previously-earned baccalaureate degree may register for any course in the Western *undergraduate* catalog (100-400 levels) without regard to *course* prerequisites. Courses requiring permission of the instructor or the department, or those requiring previous teaching experience, are not included in this category; nor are courses requiring a conference course permit. Post-baccalaureate students should realize that this policy places responsibility on them to determine if they have had the equivalent courses or have acquired experience tantamount to these waived prerequisites. In any case of doubt, it is suggested that such students seek the counsel of the instructor involved.

CREDITS AND CREDIT LOADS

A student's academic work is recorded quantitatively in credits and qualitatively in grades. Western's concern for its students' academic achievement is a major reason for its policies concerning credit loads.

At Western "credit" or "quarter hour credit" is the term used to signify the number of hours each week the student meets with the instructor in a course throughout the quarter. If a course is scheduled at 9 a.m. on Mondays, Wednesdays and Fridays throughout the quarter, for example, the student will probably earn three credits for the course. In general, the more hours each week that the student and instructor meet in a scheduled course, the more credits the student earns for the course.

Since each hour in a course requires 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; 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 advisers.
- After the first quarter of residence, the maximum allowable load is 20 credits per quarter.
- An employed student is expected to reduce his or her academic program and credit load accordingly.

See the Summer Catalog for load limits during the summer session.

AUDITORS

Auditors are persons who desire to attend courses without credit. Admission as an auditor requires prior approval of the instructor and Registrar, as well as payment of a \$10 fee per course. Regularly enrolled full-time students do not pay an additional fee for auditing. Since auditors are not active participants, certain courses may not be audited (physical education activities, laboratory courses, studio courses, etc.).

FULL-TIME STATUS

At Western distinction between full- and part-time status of undergraduate students is based upon quarter hour credits (see "Credits and Credit Loads") and tuition and fee payments.

The payment of full fees and tuition defines full-time undergraduate enrollment status for students to be eligible for on-campus jobs, student offices and memberships on College committees, councils, commissions and task forces.

Certain programs have different definitions of full-time undergraduate status (i.e., athletic eligibility, financial aid programs, Social Security benefits, Veterans Administration, etc.). *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.*

Graduate students should consult the Dean of the Graduate School for a definition of "normal progress."

CHANGES IN REGISTRATION

Students may not enter new courses after the first week of instruction.

Formal withdrawal from any course must be made

in the Registrar's Office. Students leaving a course without formal withdrawal receive a failing grade. Course withdrawal during the five-day "Drop and Add" period at the beginning of each quarter is considered to be a change in initial registration and no grade results. From the sixth day through the eighth week of a quarter, course withdrawal results in a grade of "W" on the student's permanent record. After the eighth week of a quarter, course withdrawal is not permitted.

Formal withdrawal from the College may be made at any time before the final two weeks of a quarter. Students who leave the College without formal withdrawal receive failing grades.

Military Withdrawal

A student who has been called to extended active military duty and is required to withdraw from the College may be considered for credits as follows:

1. Withdrawal during the first third of the quarter—no credit; full refund.
2. Withdrawal during the second third of the quarter—one-half credit, to the nearest whole credit, if course work is satisfactory, without letter grade and with course unspecified; one-half refund. Applicability of such credit to requirements is determined by the department concerned.
3. Withdrawal during the last third of the quarter—full credit if course work is satisfactory with or without letter grade at the discretion of the instructor; courses specified.
4. A student required to withdraw during the final quarter before obtaining the baccalaureate degree may be granted the degree if approved by the Dean of the college or school concerned and by the chairman of the student's major department.

COURSE ATTENDANCE

Course attendance is required at the discretion of the instructor. Excuses may be granted by the Health Service, Registrar or other authorized College personnel.

FINAL EXAMINATIONS

Final examinations, if any, must be given by course instructors during the last week of each quarter. As a matter of College policy, individual students are not permitted to take early final examinations. Failure to take the final examination in any course normally results in a grade of "F." When extenuating circumstances make it impossible for a student to appear at a scheduled final examination, he or she may negotiate a contract in advance with the instructor

to receive a grade of "K" (incomplete), a privilege available only to students whose achievement in the course is satisfactory. Removal of the "K" grade should be accomplished early in the following quarter. (See "Grades and Grade Reporting.")

GRADES AND GRADE REPORTING

The system of grading at Western is as follows:

A	Superior
B	High
C	Average
D	Low Passing
F	Failure
S	Satisfactory
P	Passing
NP	Not Passing
K	Incomplete
U	Unsatisfactory
W	Withdrawn

As with Western's admission standards, many evaluations of the academic achievement of Western's students are described in terms of the traditional A-F grading continuum:

Grades of A are awarded sparingly and recognize an unusual degree of excellence or distinction; grades of B identify performance that is clearly better than average; C identifies average course performance; D indicates low but passing performance; and F indicates either that the student has failed to perform adequately in a course, or that the student has failed to carry out prescribed procedures when withdrawing from a course or the College, or both.

Other notes and policies concerning Western's system of grading are provided below:

Students are advised that excessive use of the P/NP grading system or consistent patterns of K or W grades may negatively influence admission to some graduate schools and employment opportunities.

Credit is granted in courses graded A, B, C, D, S and P. The grade of D, however, represents poor work unacceptable in the major, minor, supporting courses for majors or minors, English composition, professional education, educational psychology courses required for a degree or certificate, and Fifth-Year courses.

Grades of S and U are used in certain courses which the department and the appropriate curricular body deem inappropriate for other grading systems. In such instances, all sections of such courses use the S/U grading system.

The grade of K (incomplete) 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/her control make it impossible to complete course requirements on schedule. (Extenuating circumstances do not include mere lateness in completing work or the desire of a student to do extra work to raise a poor grade, etc.) If circumstances require that a student leave a course prior to the final two weeks, he/she must formally withdraw from the course.

To receive a K grade, a student must obtain a contract form from the appropriate department 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, one by the faculty member, and one is filed with the chairperson of the academic department involved. Normally, the student removes the K grade (completes the work agreed upon) during the next quarter. After one year, removal of a K is not possible, and the student may establish credit only by registering again for the course.

The grade of W (withdrawal) results *only* from student initiative and may not be assigned by an instructor. (See "Change in Registration" for details concerning withdrawal.)

Grade reports are mailed to students at the close of quarters to addresses supplied at registration.

Mid-term deficiency reports, although not recorded, are sent to students when their course work is unsatisfactory (less than C).

Grade points serve as a means of stating level of scholarship, a point value being assigned to each grade: A, 4 points; B, 3; C, 2; D, 1; F, 0. A three-credit course with a grade of B is assigned nine points. A grade point average is the result of dividing the total number of grade points by the total number of registered hours. A grade average of 2.0 represents a letter standard of C. Grades of S, P, and NP, and the credit involved in such courses, do not enter into grade point averages.

For most purposes, e.g., application of scholastic standards, honors and graduation, the grade average takes into account only work completed at Western Washington State College.

A student may repeat any course previously attempted or completed. In cases of course repeats, only the final grade earned shall be computed in the calculation of cumulative grade average (unless the repeat results in a grade of W, K, U or NP). Credit shall be given only once for the course.

If a transfer student, in order to progress in the major or minor, is required to enroll in a course that may be a repeat of work transferred, the student will be allowed credit for both courses.

Pass-Fail grading is available on an optional basis to students in elective courses only.

Regulations pertaining to pass-fail courses are as follows:

1. Courses required for the major, minor or supporting courses, undergraduate professional requirements, and General College Requirements may not be taken pass-fail. Courses graded P/NP may not be applied to Master's degree programs.
2. The student at the time of registration must designate the courses for which he/she wishes to receive a pass-fail grade. He or she may change this designation by the regular change of registration procedure through the fifth day of instruction.
3. Prerequisites, work required, and credit allowed are not affected by election of the pass-fail option.
4. In computing grade averages, neither the P nor NP grade in pass-fail courses will be counted.
5. Courses applying to a major (including supporting courses) or minor must be taken on the standard grade system. Should a student change his or her major or minor, the academic departments involved will be the sole judges of the acceptability of any pass-fail courses already completed in the newly chosen concentrations.
6. Once a student has earned NP grades in courses totaling 10 credits, he or she may no longer register for courses under the pass-fail option.

SCHOLARSHIP STANDARDS

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

High Scholarship

Graduation Honors

Graduation cum laude or *magna cum laude* is possible from those divisions of Western Washington State College which employ the A-F grading system: The College of Arts and Sciences, the College of Business and Economics, the College of Fine and Performing Arts, and the School of Education. Fairhaven and Huxley colleges, which employ different grading systems, may develop alternate ways to honor outstanding graduates, subject to approval of the Academic Coordinating Commission.



Within each college which awards *cum laude* or *magna cum laude* status upon graduation, the determining factor in granting such distinction shall be rank-in-class based upon cumulative grade average. *Magna cum laude* shall be awarded to each student whose cumulative grade average places him or her at the 97th percentile or higher among graduating seniors during the *previous* academic year. *Cum laude* shall be awarded to each student whose cumulative grade average places him or her from the 92nd through 96th percentile among graduating seniors during the *previous* academic year.

In striking cumulative grade averages to determine graduation honors, the Registrar shall count only those grades earned at Western Washington State College and shall include, for this purpose only, grades in courses subsequently repeated.

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 State College, at least 65 of which must be for courses completed under the A-F grading system.

Only students who earn a first bachelor's degree are eligible for graduation honors.

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, etc.) 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 State College which employs the A-F grading system and must complete at least 14 credits on that grading system.

Low Scholarship

The College has set the standards described below to assure that students who are earning poor marks will examine carefully their objectives before continuing enrollment. In some cases, students will be dropped from the College. The standards are designed to assure that this action is taken before a student's record deteriorates to the point that reinstatement or admission to another college becomes impossible. In all cases involving poor scholarship, students are encouraged to consult with their advisers, instructors, or members of the student affairs staff.

The low scholarship categories below apply to all divisions of Western Washington State College, except Fairhaven and Huxley colleges. (See appropriate sections for scholarship standards in these divisions of WWSC.) Students dropped from one college division may not transfer to another college division without reinstatement by the appropriate academic committee.

Academic warning is the College's expression of concern to students whose quarterly grade averages are below 2.00. A warning is issued to (a) a new freshman or transfer student whose first-quarter grade average is below 2.00, (b) any other student whose quarterly grade average is below 2.00 but whose cumulative grade average is 2.00 or higher.

Academic probation is the status assigned to (a) any student except a first-quarter freshman or transfer student whose *cumulative* grade average falls below 2.00, (b) a transfer student admitted by special action of the Admissions Committee.

Continuing probation is the status assigned to a student who begins a quarter on probation and, during that quarter, earns a grade average of 2.00 or higher without raising his/her *cumulative* grade average to at least 2.00.

Academic dismissal will result if a student (a) begins a quarter on probation and earns a quarterly grade average below 2.00, (b) begins a quarter on continuing probation and, regardless of quarterly gpa, fails to raise his/her *cumulative* grade average to at least 2.00 at the end of the quarter.

Removal from probation occurs at the end of a quarter during which a student has improved his/her *cumulative* grade average to 2.00 or higher. This must be done within two quarters after being placed on probation or academic dismissal will result (see "Continuing Probation").

Reinstatement of students who have been dropped from the College because of low grade averages is the responsibility of the Scholastic Standing Committee in the College of Arts and Sciences and similar committees in the other colleges. Petitions for reinstatement are available in the Registrar's Office or the Office of Student Affairs.

A student who is dropped from one of the colleges and wishes admission to another college must follow the normal admission procedures.

Certain restrictions govern students on academic probation. They are not eligible for remunerative employment on campus; they may not hold an elective or appointive office in any student organization or appear in any performance before the student body or at any conference or as a member of any team or organization.

TRANSFER OF CREDIT POLICIES

See "Admission" section.

ACADEMIC GRIEVANCE POLICY

The text and procedures of Western's Academic Grievance Policy are contained in Appendix D in the back of this catalog.

MATHEMATICS PROFICIENCY

Proficiency in mathematics is expected of entering

students. It is prerequisite to all college-level mathematics courses. Students must meet certain minimum requirements as measured by the Washington Pre-College Test. Those who enter with a deficiency are required to remove that deficiency prior to enrollment in a fourth college quarter.

Students failing to meet minimum mathematics standards on the Washington Pre-College Test may remove their deficiency by obtaining a satisfactory score on a re-test offered once each quarter. The Center for Continuing Education offers a non-credit review course in mathematics for those who need additional preparation for the re-test.

Transfer students with credit in any college-level mathematics course, transfers with 40 or more credits, and students with credit for four years of college preparatory mathematics in high school are considered to have satisfied this requirement.

STUDENT RECORDS POLICY

For the complete text of this policy, see Appendix C in the back of this catalog.



UNIVERSITY GRADUATION REQUIREMENTS

GENERAL REQUIREMENTS FOR BACHELOR'S DEGREES*

The following requirements are common to all undergraduate divisions of Western Washington State College. For requirements unique to a given college division, see sections concerning the College of Arts and Sciences, College of Business and Economics, School of Education, College of Fine and Performing Arts, Fairhaven College and Huxley College.

- 180 quarter hours of credit
- At least one full year of residence study (45 credit minimum), including the final quarter before issuance of a degree. Study Abroad programs are acceptable as residence credit to a maximum of 45 credits. Correspondence, credit by examination and advance placement credit are not included in this total

**A student should expect to matriculate and graduate according to the general requirements in the catalog current at the time he or she enrolls. Students should expect to meet the specific requirements of the departments for majors and minors in the catalog current at the time they declare major and minor to the appropriate department.*

If the student interrupts his or her work 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 he or she is readmitted.

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

- At least 60 credits in upper-division study (courses 300 or above)
- Approved academic major
- General College Requirements
- Scholarship meeting minimums prescribed by the college divisions and academic departments

Correspondence credit earned through a fully accredited college or university may be accepted toward the bachelor's degree up to a maximum of one-fourth of the credits required. Students in residence may not register for these courses except by special permission from the Registrar.

Transferring between undergraduate college divisions of Western Washington State College requires being admitted according to the procedure of the receiving division. Students may be a member of only one division at a time.

GENERAL COLLEGE REQUIREMENTS

Required by the College of Arts and Sciences, the College of Business and Economics, the College of Fine and Performing Arts and the School of Education. Fairhaven students and Huxley College students, see appropriate college section.

Aims of the General College Requirements

- (a) To broaden and intensify the student's understanding of significant aspects of man's cultural heritage.
- (b) To introduce the student to the methods and tools of thought and expression.
- (c) To assist the student in integrating his knowledge.

- (d) To assist the student in developing his powers of aesthetic enjoyment and creativity.
- (e) To stimulate the student in formulating a philosophy of life based upon knowledge and reflection.

General College Requirements must be completed by all candidates for baccalaureate degrees except where the student has demonstrated proficiency through an acceptable college-level examination or through challenge procedure (see "Advanced Placement and Course Challenge" in Academic Regulations section of catalog). Some requirements may be satisfied with high school work as indicated below. Approved Associate of Arts degrees from Washington community colleges will fulfill all General College Requirements.

Planning General College Requirements

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

Twelve (12) credits from one department is the maximum that may be applied toward General College Requirements except from the departments of Foreign Languages (see Humanities section) and General Studies. Although more than 12 credits may be taken from the General Studies Department to apply toward the *total* General College Requirements, the maximums for individual areas must be observed. Courses which are to apply to General College Requirements must be taken on an A through F grading scale; they may not be taken with pass/no pass grading.

Communications

Complete Both A and B

All incoming freshmen are urged to complete Block A of the Communications section of the General College Requirements during their freshman or sophomore years.

- A. ENGLISH 101, Language and Exposition (4) [waived for students demonstrating high English competency on Washington Pre-College Test]

or

ENGLISH 131, 132, 133, Masterpieces of World Literature with Composition (12) [this series satisfies the English 101 requirement and 8 credits in Humanities]

- B. One course from the following:

ENGLISH 201, Introduction to Narrative Literature (4); 202, Introduction to Dramatic Literature (4); 203, Introduction to Lyric Literature (4); 301, Reading and Exposition (4); 302, Reading and Argumentation (4); 325a, Introduction to Rhetoric (3); 425a, Rhetorical Analysis (3)

JOURNALISM 104, News Writing (3)

PHILOSOPHY 107, Logical Thinking (3)

SPEECH 100, Fundamentals of Speech (3); 204, Small Group Processes (4); 205, Argumentation (4); 301, Speech Communication (3); 302, Speech for the Teacher (3)

Humanities

Course work must be distributed among at least three departments with no more than 10 credits from any one department except Foreign Languages. Foreign language study may be used to satisfy the requirement as follows:

- A. 20 credits in a single foreign language numbered above 101 and excepting courses offered in translation (367, 375) will complete the entire requirement. (At least 10 credits in the foreign language must be taken in residence, but up to 10 advanced placement credits are applicable to the fulfillment of this requirement.)
- B. Students who do not elect to complete the entire Humanities requirement through foreign language study may present up to 10 credits in foreign language classes such as 367 and 375 (courses in translation), or any foreign literature or civilization course numbered 300 or higher.

Select a minimum of 20 credits from the following:

ART 190, Art Appreciation (2); 110, Interdisciplinary Art (5)

ART HISTORY 220, Survey of Art History I (3); 230, Survey of Art History II (3); 240, Survey of Art History III (3)

CLASSICAL STUDIES 350, Greek and Roman Mythology (3)

ENGLISH 131, 132 & 133, Masterpieces of World Literature with Composition (4 ea) [must take whole series]; 216, Survey of American Literature (5); 231, Studies in Popular Literature (3); 238, Society through its Fiction/Drama/Poetry (5); 262, Film and Drama (4); 281, Western World Literature, Classical (5); 282, Western World Literature, Romantic (5); 283, Western World Literature, Modern (5); 338a, Women in Literature (4); 338b, Sex Roles in Contemporary Literature (4); 362, The Bible as Literature (5); 363, Cultural Heroes and Anti-Heroes in American Literature (4); 461j, The Afro-American and the Literary Imagination (5)

FOREIGN LANGUAGES 367, Foreign Literature in Translation (3); 375, Main Currents in Modern Foreign Literature [French, German, Spanish, Russian] (5 ea)

GENERAL STUDIES 121, Humanities, Ancient (5); 122, Humanities, Medieval (5); 123, Humanities, Modern (5); 231, Introduction to Study of Religion (3); 232, Myth and Folklore (4); 233, Religion in American Culture (4); 242, Music and the Ideas of Western Man (4); 310, Special Topics in the Humanities (3); 311, Great Books Representative of the Humanities (3); 341, Art and Ideology (3); 432, American Folklore (4)

HISTORY 103, 104, Introduction to American Civilization (5 ea); 105, 106, 107, Introduction to Western Civilization (5 ea); 267, History of Christianity (5); 347, European Intellectual History (5); 365, Great Personalities in American History (5); 366, American Society and Thought: Origins 1620-1800 (5); 367, American Society and Thought: Origins 1800-1900 (5); 368, American Society and Thought: Origins 20th Century (5)

HOME ECONOMICS 175, Personal Environmental Design (2)

JOURNALISM 160, Current Events and the Media (3); 390, The News Process [may be taken only once to satisfy General College Requirements] (4)

MUSIC 110, Interdisciplinary Art (5); 140, The Art of Listening to Music (3)

PHILOSOPHY 111, Introduction to Philosophy (3); 112, Moral Philosophy (3); 113, Problems in the Philosophy of Religion (3); 215, Introduction to Existentialism (3); 330, Society, Law, and Morality (3); 405, Philosophy of Art and Criticism (3)

POLITICAL SCIENCE 360, Introduction to Political Theory (5); 460, Political Theory, Ancient and Medieval (3); 461, Political Theory, Renaissance and Modern (3); 462, Political Theory, Contemporary Ideologies (3); 463, American Political Thought (5); 465, Theories of Democracy (3)

SPEECH 480, The History and Criticism of American Public Address: 1740-1890 (3); 481, The History and Criticism of American Public Address: 1890 to Present (3); 482, History and Criticism of British Public Address (3); 483, History and Criticism of Canadian Public Address (3); 490, Rhetorical Theory and Practice—Greek and Roman (4)

THEATRE 101, Introduction to the Theatre (3); 110, Interdisciplinary Art (5); 231, Introduction to Dance (2); 301, The Art of Film (3); 302, Film Genre (3); 350, Introduction to Child Drama (3); 425, Modern European Drama (3); 426, Modern American Drama (3); 427, Contemporary Drama (3); 428a,b,c, Major Dramatists (3 ea)

Social Sciences

Course work must be distributed among at least three departments with no more than 10 credits from any one department.

Select a minimum of 17 credits from the following:

ANTHROPOLOGY 201, Introduction to Cultural Anthropology (5); 202, Introduction to Human Origins (5); 210, Introduction to Archeology (5); 310, The Rise of Civilizations (5); 330, Religion and Culture (5); 353, Sex Roles in Culture (4); 481, Childhood and Culture (3)

ECONOMICS/BUSINESS — Bus Adm 271, Law and Business Environment (4); Econ 190, Current Economic Trends (3); 201, Principles of Economics I: Introduction to Macro-Economics (5)

GENERAL STUDIES 105, Behavioral Science (5); 200, Introduction to Economic and Political Institutions (4); 466, Popular Culture (4)

GEOGRAPHY 201, Human Geography (5); 207, Economic Geography (5); 210, Geography and World Affairs (2); 310, Pacific Northwest (3); 348, Political Geography (5)

HEALTH EDUCATION 150, Consumer Health (2); 151, Society and Drugs (2); 152, Society and Sex (2)

HISTORY 336, Comparative Imperialisms (5); 346, Technology and Society in Early European History (5); 360, American Economic History (5); 371, History of American Technology (5)

HUXLEY 467, Politics, Transformation and Environmental Constraint (4)

JOURNALISM 340, The Press and Society (3); 350, Law of the Press (3); 440, Press and World Affairs (3)

LEISURE STUDIES 101, Leisure and Society (3)

PHYSICAL EDUCATION 309, Psychology of Sport (3); 310, Sociology of Sport (3)

POLITICAL SCIENCE 101, Government and Politics in the Modern World (5); 170, A Citizen's Guide to Foreign Policy (5); 250, American Political System (5); 291, Introduction to Comparative Politics (5); 467, Politics, Transformation and Environmental Constraint (4)

PSYCHOLOGY 201, Introduction to Psychology (5); 313, Personality (5); 315, Social Psychology (5); 316, Developmental Psychology (5); 317, Human Sexuality (3); 318, Psychology and Culture (3); 319, Personality Theories and Sex Roles (4); 320, Industrial Psychology (4); 342, Thinking and Imagination (3); 347, Humanistic Psychology (3); 353, Adolescent Psychology (4)

SOCIOLOGY 202, Principles of Sociology (5); 251, Sociology of Social Problems (5); 321, Introduction to Demography (5); 330, Introduction to Social Psychology (5); 333, Sociology of Aging (5); 335, Sociology of Medicine, Health and Illness (5); 337, Sociology of Sexual Behavior (5); 351, Sociology of Deviant Behavior (5); 352, Criminology (5); 353, Juvenile Delinquency (5); 360, Sociology of the Family (5); 363, Sociology of Religion (5); 365, Public Opinion (5); 367, Sociology of Work and Occupations (5); 368, Sex Roles and Social Structure (5)

SPEECH 340, Introduction to Mass Communication Media (3)

TECHNOLOGY 391, Man and Technology (3)

Non-Western & Minority Cultural Studies

This area focuses upon a study of East Asia, South East Asia and India, the Middle East, Sub-Sahara Africa, Latin America, the Minority Experience in America, and Cross-Cultural Studies.

Select a minimum of 8 credits from the following:

ANTHROPOLOGY 361, Indians of North America (5); 362, Peoples of Asia (5); 363, Peoples of Africa (5); 364, Peoples of the Pacific (5); 451, Latin American Ethnology (5); 462, Indians of Northwest Coast (3); 463, Peoples and Institutions of South Asia (3); 464, Peoples and Institutions of East Asia (3)

EAST ASIA 301, 302, 303, The Cultures of East Asia: The Early, Middle and Recent Periods (4 each); 310, Mongolia and the Mongols (3); 311, Korea: Its People, Culture and History (5)

ENGLISH 217, Survey of Women's Literature (5); 234, Introduction to Afro-American Literature (5); 420a, Studies in Commonwealth Literature (4)

ETHNIC STUDIES 203, Chicano History, Society and Culture (3); 205, Introduction to Asian American Studies (3)

GENERAL STUDIES 271, Humanities of India (4); 272, Myth/Religion and Society in China and Japan (4); 273, Artistic Expression and Society in China and Japan (4); 274, Society and Literature in China and Japan (4); 275, Humanities of Japan (4); 276, Humanities of Africa (4); 332, Universal Religions: Founders and Disciples (4); 371, The Process and Problems of Modernization of Non-European World (4); 372, Modernization and the Place of the Individual in Non-European World (4); 373, Strategies and Visions of Modernization in the Non-European World: Conservatives, Reformers, Revolutionaries (4)

GEOGRAPHY 314, Latin America (5); 315, Asia (5); 319, Africa (5); 321, Indian, Pakistan and Bangladesh (3); 322, Middle East (3)

HISTORY 271, Introduction to Latin American Civilization (5); 273, Introduction to Latin America (5); 280, Introduction to East Asian Civilization (5); 285, Introduction to African Civilizations (5); 287, Introduction to Islamic Civilization (5); 361, Black History in the Americas: The Slavery Era (5); 362, Black History in the Americas Since Emancipation (5); 375, Indian in American History (5); 385, Africa to 1885 (5); 386, Africa since 1885 (5); 387, History of the Jews (5); 473, Selected Major Latin American States in the 20th Century (5); 480, China from Antiquity to early T'ang (5); 481, Imperial China from Early T'ang to Mid Ch'ing (5); 482, China from Late Ch'ing to Present (5); 483, Traditional Japan (5); 484, Modern

Japan (5); 487a, Early Middle East (5); 487b, Modern Middle East (5); 489, Southern Africa (5)

POLITICAL SCIENCE 305, International Politics in the Middle East (3); 307, East Asia (5); 308, Sub-Saharan African Political Systems (5); 309, Southeast Asia (5); 346, Poverty, Minorities, and Government (5); 417d, Selected Problems in East Asian Politics (3); 430, Modern Chinese Politics (5); 431, Modern Japanese Politics (5)

Mathematics

(Students should check the mathematics requirement for their majors before selecting a mathematics or computer science course. Some majors require mathematics or computer science courses that will apply also to the General College Requirements.)

Students with four years of high school mathematics may have the requirement waived.

To satisfy this requirement, successfully complete any one mathematics course numbered 121 or higher or any one computer science course

or

Students with three years high school mathematics may substitute Philosophy 102, Introduction to Logic (3)

or

Students with two years of high school mathematics may take Mathematics 103, Algebra (5), and then substitute Philosophy 102.

Science

Complete Both A and B

A. One course from three of the four following areas (two of the four areas for students with one year high school—grade 11 or 12—preparation in chemistry, geology, physics or advanced biology):

BIOLOGY 101, General (4); 120, Science of Biology (5); 348, Human Anatomy and Physiology (5)

CHEMISTRY 101, Chemical Concepts (4); 115, General (5); 121, General I (5)

GEOLOGY 101, General Geology (4); 211, Physical Geology (5)

PHYSICS AND ASTRONOMY — Physics 101, Physics for the Liberal Arts (4); 131, Principles of Physics (5); 132, Principles of Physics (5); 231, General Physics with Calculus (5); 306, Physical Foundations of Music (4) [also offered as General Science 306]. Astronomy 103, Astronomy for Liberal Arts (4)

B. One additional course from Section A above or one course from the following list:

BIOLOGY 201, Mushrooms, Mosses and Molds (3); 202, Flowering Plants, Conifers and Ferns (3); 203, Insects and Other Terrestrial Arthropods (3); 204, Mammals, Birds, Reptiles, etc. (3); 205, Marine Biology (3); 206, Birds of the Northwest (3); 208, Foreign Chemicals and Natural Systems (3); 210, The Science of Biology (5); 305, Natural History of the Northwest (5); 307, Human Populations and Natural Resources (3); 308, Human Population and Sexuality (3); 349, Human Anatomy and Physiology (5); 370, Human Genetics (4)

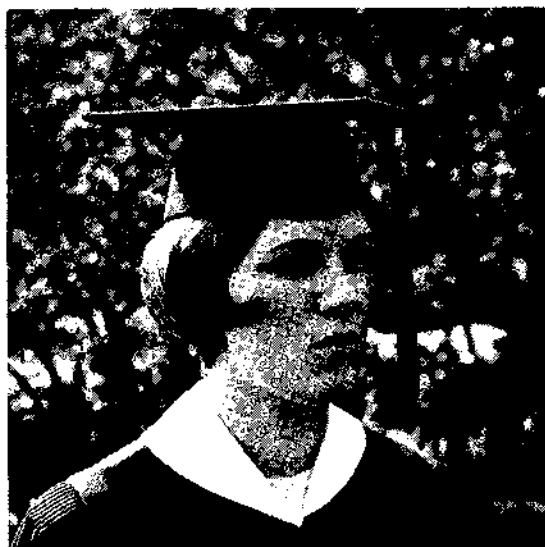
CHEMISTRY 122, General II (5); 208, Industrial Chemistry (3); 251, Organic Chemistry (3)

GEOGRAPHY 101, Natural Environment (4); 203, Physical Geography (5); 330, Geography of Landforms (5); 331, Climatology (5); 422, Geography of Water Resources (5); 423, Geography of Soils (3); 424, Biogeography (3)

GEOLOGY 212, Historical Geology (4); 214, Environmental Geology (3); 310, Geomorphology (5); 311, Common Rocks and Minerals (4); 314, Geomorphology of Western U.S. (3); 340, Geological Oceanography (3); 414, Geology of Washington (3-5)

HOME ECONOMICS 250, Human Nutrition (3)

PHYSICS AND ASTRONOMY — Physics 301, Physics and Environmental Problems (3); 331, Waves and Thermodynamics (5). Astronomy 315, Solar System Astronomy (4); 316, Stellar Astronomy (4); 317, Cosmology (3)



PROCEDURES FOR APPLYING FOR BACHELOR'S DEGREE AND/OR PROVISIONAL TEACHING CERTIFICATE

Degrees and/or teaching certificates are not automatically awarded when requirements are completed. It is the responsibility of the student to make application in the Registrar's Office no later than the third week of the final quarter and it is strongly recommended that the student appear for the evaluation and application at least two quarters in advance of completion. Complete instructions are available in the Registrar's Office.

Commencement activities are held in the spring only. All students who have graduated the fall and winter quarters immediately preceding and those who have applied for graduation for spring quarter and the subsequent summer quarter are invited to participate. An informal mailing is forwarded to all eligible students early in the spring.

ALL-UNIVERSITY PROGRAMS

As noted earlier, Western Washington State College is organized into five colleges, a School of Education 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 seven All-College Programs listed below, involve all or most of Western's departments, colleges and schools:

- Aquatic Studies
- Center for Continuing Education
- Foreign Study
- Graduate Study
- Honors Program
- Professional Programs
- Professional Transfer Programs

Academic opportunities available through Western's All-College Programs are described briefly below.

AQUATIC STUDIES

The Aquatic Studies Program maintains both fresh and salt water related research and instructional facilities to augment regular curricular programs. Operations include research, technical assistance, analytical and monitoring capacities. Offices are located in the Environmental Studies Center and at the Leona M. Sundquist Marine Laboratory at Shannon Point. The Sundquist Laboratory is managed by the program for a consortium of state colleges and community colleges. It is located on Ficalgo Island, 44 miles from the WWSC campus. It operates year-round and is used primarily for undergraduate instruction and research.

CENTER FOR CONTINUING EDUCATION

The Center for Continuing Education makes Western's courses and degree programs available off campus; develops special workshops, conferences and institutes; and thus extends Western's resources and increases Western's service to the State of Washington.

Learning opportunities available through the Center for Continuing Education enable adults throughout the state to upgrade their occupational skills, to acquire new skills, and to pursue a variety of special interests on a part-time basis. These opportunities are available not only on campus and through field centers in Bellingham, Bellevue and Central Seattle, but also in more than 50 localities in more than a dozen counties.

College credit may be earned in a wide variety of evening courses on and off campus; many courses may be audited. Western also cooperates with the state's community colleges, supplementing their curricula so that undergraduate degree programs are available to students and adults in community college areas. In a variety of locations, the Center also makes available Western's graduate courses and programs for public school teachers and administrators. *Independent Study* opportunities offered through the Center make many of Western's courses available by mail. *Non-Credit Programs* include courses, workshops, conferences, and seminars available on request by individuals, by committees, or by public, private and governmental agencies. Each non-credit program is tailored to the needs of its participants, and each usually involves adult learners, faculty members, visiting scholars, and specialists from business, industry and government.

For further information, contact the Center for Continuing Education.

FOREIGN STUDY

WWSC co-sponsors year-around liberal arts Study Abroad programs in England, France and Mexico, as well as other countries during specific quarters. 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. Students register at WWSC before departure and carry normal course loads for the quarter (15 credits). Students may also receive credit for foreign study through (a) accredited programs sponsored by individual departments or other colleges, and (b) independent study arranged through departments and colleges by the Foreign Study Office. Foreign Study courses within a department are normally assigned 237, 337 or 437 numbers.

GRADUATE STUDY

In 1947, the State Legislature authorized Western Washington State College to offer master's degree programs in professional education; in 1963, this authorization was expanded to include master's degree programs in arts and sciences.

Today, Western offers graduate programs in more than 20 academic and professional areas of study, in some of which several graduate degrees are available. For a complete listing, see the Academic Programs under "The Colleges and Schools of Western" section of this catalog.

Master's degree programs require from one to two years of study following the baccalaureate degree. Depending on the particular program, options include both the thesis and non-thesis degree. In addition, Western offers graduate programs leading to Principals' Credentials.

Various forms of financial aid and a number of graduate assistantships are available to students pursuing master's degrees. Full information about financial assistance, programs and eligibility requirements for graduate study is contained in the Graduate Catalog, which may be obtained from the Office of Graduate Study.

THE HONORS PROGRAM

Western's undergraduate Honors Program provides a challenging opportunity for students of high academic ability to realize their potential more fully. Freshmen and transfer students are invited into the Honors Program on the bases of entrance exams, high school grade averages, recommendations and interviews. Students already enrolled at Western enter the program on the above bases or on the recommendation of a college instructor.

Students selected for honors work participate in much of the general college requirements program required of all degree candidates, but are responsible to the director of the Honors Program for the precise determination of their programs. Substitutions or waivers of some required courses may be approved on the basis of individual needs. The director of the Honors Program and the student's major department have joint responsibility for upper-division course requirements.

The four-year Honors Program involves both general honors courses and more specialized work within the major department. The program also enables students to prepare alternates to the general college requirements, to undertake more independent study and to develop contracts for graduation.

Students interested in this program are invited to consult with the director of the Honors Program, Dr. Brian Copenhaver, for more details.

Admission to the Program

Students admitted to Western are considered for admission to the Honors Program by any one of the following ways:

1. Scholastic aptitude test scores in the top five per cent.
2. A grade point of 3.7 or above.
3. Faculty recommendation.

Quarterly Courses of Study

Colloquia: Usually two or three credits; small groups of students and faculty who meet to study an area in depth. Several colloquia are offered each quarter, titles of past colloquia including "Socrates and Jesus," "The Common Law Tradition," "Philosophy of Science," "Geologic Hazards" and "The Russian Novel."

Tutorials: Usually two credits; one faculty member and one student work together on a problem of special interest to both.

Independent Study: Individual work with a concentrated area of study related to the student's major or minor, not necessarily completed on campus. Past examples include working with the ACT Theatre Company in Seattle, studying medieval architecture in Europe, and studying the Russian language.

Special Majors, Course Waivers, Early Graduation: General college requirements may be waived in lieu of a relevant colloquium or tutorial. Advanced placement exams are available by arrangement with the Testing Center. Students may propose a major or major-minor concentration not listed in the catalog. Such majors are prepared in detail by the student with the help of faculty in concerned departments, and constitute a contract for

graduation. In some cases, graduation with fewer than 180 credits is warranted.

Policies within the Honors Program, student-run colloquia, independent studies, recommendations for graduation with honors, and senior theses must be approved by the Honors Board. The Honors Board consists of the director, who chairs the board, and selected faculty and honors students.

Requirements for Graduation with Honors

In addition to (or in some cases, in lieu of) the requirements for graduation from WWSC, the honors student must have completed the following:

- A *minimum* of 12 credits in honors (colloquia, tutorials, independent study). 20 credits of honors work is more typical.
- A minimum of two years in the Honors Program.
- An all-college grade point average of not less than 3.5 for the last 90 credits before graduation.
- Completion of department requirements for graduation with honors in the student's major (in those departments offering departmental honors).
- A senior thesis approved by the student's thesis adviser and department chairman. The thesis must be signed and delivered in proper form to the Honors Office three weeks prior to expected graduation. (The thesis proposal should be presented to the Honors Board three quarters prior to expected graduation.)
- The student who has developed his or her own major or who has completed alternate work for general college requirements should check with the Honors Office prior to the Registrar's senior evaluation. Notice of work in honors will be forwarded to the Registrar.

Honors Courses (Non-departmental)

Specific descriptions of current offerings are available in the Honors Office.

151, 152, 153	TUTORIAL (2 ea)	
161, 162, 163	COLLOQUIUM (2 or 3 ea)	
251, 252, 253	TUTORIAL (2 ea)	
261, 262, 263	COLLOQUIUM (2 or 3 ea)	
290	SUMMER READINGS (2)	
300	INDEPENDENT STUDY	(variable credit)
361, 362, 363	COLLOQUIUM (2 or 3 ea)	
390	SUMMER READINGS (2)	
400	INDEPENDENT STUDY	(variable credit)
461, 462, 463	COLLOQUIUM (2 or 3 ea)	
490	SUMMER READINGS (2)	

PROFESSIONAL PROGRAMS

Western offers a wide variety of professional programs for students interested in specific careers. All of these programs may be undertaken through the Bachelor's degree level at Western. However, some may require additional study at professional schools or at Western after the Bachelor's degree has been completed. *Students interested in these programs are urged to consult the appropriate adviser as soon as possible.*

Program	Consult Catalog Listing Under:
Accounting	Accounting
*Archivist	History
Art	Art
Audiology	Speech
Biology	Biology
Biology/Chemistry	Biology or Chemistry
Biology/Mathematics	Biology or Mathematics
Broadcasting	Speech
Business Administration	Business Administration
Chemistry	Chemistry
Chemistry/Biology	Chemistry or Biology
Computer Science	Mathematics/Computer Science
Dance	Theatre/Dance
**Dentistry	Professional Transfer Programs
Economics	Economics
Economics/Mathematics	Economics or Mathematics
Ecosystems Analysis	Huxley College
*Education	Education
Adult Education Administration	
Consultant, Early Childhood Education	
Curriculum Consultant, Secondary	
Early Childhood Education, Elementary	
Elementary Consultant Supervisor	
Elementary School	
Exceptional Children	
Junior High - Middle School	
Learning Resources Specialist	
Reading Consultant - Remedial Reading Teacher	
School Administration	
Secondary School	
Special Education	
Environmental Administration	Huxley College
Environmental Education	Huxley College
Environmental Geology	Geology
Environmental Health	Huxley College
Environmental Monitoring	Huxley College
Environmental Planning	Huxley College
Environmental Systems & Simulations	Huxley College
Ethnic Studies/Social Studies	Ethnic Studies
Geology	Geology
Geology/Mathematics	Geology or Mathematics
Geophysics	Geology
Health Education	Physical Education/ Health Education
Home Economics	Home Economics
Human Ecology	Huxley College
Human Services	Ethnic Studies
Industrial Design	Interdepartmental Programs
Industrial Technology	Technology
Journalism	Journalism
**Law	Professional Transfer Programs
Marine Resources	Huxley College
Mathematics/Biology	Mathematics or Biology
Mathematics/Computer Science	Mathematics/ Computer Science
Mathematics/Geology	Mathematics or Geology
Mathematics/Physics	Mathematics or Physics
**Medicine	Professional Transfer Programs
Music	Music
Choral Director	
Consultant, Elementary	
Instrument Director	

*Requires additional post-baccalaureate study at Western.

**Requires additional post-baccalaureate study at a professional school.

Office Administration	Office Administration
Physical Education	Physical Education/ Health Education
Education	
Elementary School Consultant	
Physical Geochemistry	Geology
Physics	Physics
Physics/Mathematics	Physics or Mathematics
*Predentistry	Professional Transfer Programs
**Prelaw	Professional Transfer Programs
**Premedicine	Professional Transfer Programs
Psychology	Psychology
School Counselor	
School Psychologist	
Public Policy & Administration	Political Science
Recreation & Park Management (Leisure Studies)	Interdepartmental Programs
Self-Designed Interdisciplinary Major	General Studies
Social Studies/Ethnic Studies	Ethnic Studies
*Social Work	Sociology
Sociology	Sociology
Speech Pathology	Speech
*Student Personnel	
Administration Education—Graduate Catalog	
Theatre	Theatre/Dance
Urban & Regional Planning	Geography/ Regional Planning
Visual Communications Education (VICOED) Interdepartmental Programs	

PROFESSIONAL TRANSFER PROGRAMS

The following programs are listed for students who anticipate transfer to another institution for completion of their professional training. Final acceptance and application of transfer credit are made by the institution to which the student transfers. Early contact with the on-campus faculty adviser and with the college, university or professional school is strongly encouraged.

Programs listed below are coordinated by Western's Office of Admissions and School/College Relations, where catalogs from other in-state colleges are available and assistance in clarifying transfer procedures is offered. Information concerning each transfer program is current at the time catalog copy is submitted. Programs undergo constant revision, however, and as changes occur program recommendations become outdated. The student, therefore, must bear responsibility for early contact with the on-campus adviser and the professional school.

Agriculture

In colleges of agriculture, most agriculture courses are usually taken during the junior and senior years. During the first two years the student normally takes courses designed to satisfy general requirements and to build a foundation for advanced study. Students planning transfer from

*Requires additional post-baccalaureate study at Western.

**Requires additional post-baccalaureate study at a professional school.

Western to study agriculture are advised to review the catalog of the college or university from which they expect to graduate and also to correspond with the chairman of the appropriate department. Care must be taken to satisfy the general requirements of the other college or university so that time for completing required agriculture courses after transfer is available. The schedule below is generally suitable.

- English 101 plus six quarter hours of other communications courses
- Nine quarter hours of arts and humanities courses selected under advisement¹
- Economics 201 (also 202 if interested in agricultural economics)
- Nine quarter hours in social sciences selected under advisement
- Chemistry 121, 122, 123 (suggested for freshman year)
- Biology 120, 210, 310, 311, 312
- Mathematics through 121 at Western (if interested in agricultural economics, include one course in calculus)
- Electives in accordance with interests

Faculty Adviser: B. E. Omev, Registrar's Office.

Architecture

Western offers two years of undergraduate study which may be transferred to the University of Washington as the liberal arts component of a baccalaureate degree program in architecture. Pre-majors are required to complete a balanced distribution of courses during the first two years based on recommendations found on pages 86-87 of the 1974-76 University of Washington General Catalog.

Washington State University offers baccalaureate level architectural studies. Pre-major requirements include completion of the general university requirements and specifically recommended courses listed in the Washington State University Bulletin.

Faculty Advisers: Dr. Fred A. Olsen, Department of Technology, and Dr. Richard F. Vogel, Department of Technology.

Dental Hygiene

Associate and baccalaureate degree programs in dental hygiene are available in Washington institutions of higher education. Effective fall quarter, 1975, students wishing to enter the baccalaureate degree program at the University of

¹Take courses which satisfy the general requirements of the transfer institution.

Washington should complete the following courses at WWSC.

- Chemistry 121, 122, 123
- Chemistry 251²
- Biology 120, 210, 312, 368
- Math 121
- Psychology 201
- Sociology 202
- Speech 100
- Recommended: a high school or college physics course
- Electives to meet the University of Washington distribution requirements for a total of 90 credits including the above required courses

Faculty Advisers: Dr. Salvatore F. Russo, Department of Chemistry, or Dr. John C. Whitmer, Department of Chemistry.

Dentistry

Admission to the professional schools of dentistry is highly competitive; therefore, a pre-dental program should be planned with care. Not only should electives be relevant to dentistry, but every effort should be made to maintain high scholarship. Thus the student's individual abilities enter into pre-dental planning.

Since dental schools give valuable advice and information about admission standards and requirements, it is wise for pre-dental students to make personal contacts with a dental school early in the program.

- Chemistry 121, 122, 123, 351, 352, 353, 354, 355
- Biology 120, 210, 312, 345, 368
- Chemistry 371³
- Physics 131, 132, 133
- Electives: students should take a minimum of 30 quarter credit hours divided between three or more of the following study areas, including a minimum of 10 quarter credit hours in one area anthropology, economics, English, history, philosophy, political science, psychology and sociology

Committees on admission recommend that pre-dental students choose electives with the aim of broadening their intellectual and social backgrounds in speech, fine arts, languages, literature, business administration and the behavioral sciences.

There is no minimal number of pre-dental credit hours and an undergraduate or graduate degree is not required for admission. Students being accepted in the schools of dentistry, however, have

²Or Chemistry 351, 352, 353, 354.

³Or Chem 471, 472.

completed an average of more than 180 quarter credit hours.

There is no apparent advantage in transferring to the University of Washington before applying to the Dental School, as Western students have been admitted directly into their program.

Faculty Advisers: Dr. Salvatore F. Russo, Department of Chemistry, or Dr. John C. Whitmer, Department of Chemistry.

Engineering

First-year requirements in schools or colleges of engineering at most universities emphasize mathematics, the physical sciences, and communications. Those are the base upon which all engineering curricula are constructed. After the first year, curricula for the various specializations—electrical, mechanical, chemical, civil, aeronautical, etc.—include general requirements and introductory courses.

Courses listed below meet most requirements, but students who anticipate transfer to a specific institution should compare the list with that of the transfer institution and should consult with the program adviser.

Usually admission to a college or school of engineering requires above average academic performance and greater depth in introductory courses than is required for admission to a liberal arts program. In most cases, first-year courses are equivalent to those for Western's majors in mathematics, physics, chemistry and geology.

Students who plan more than one year of residence at Western before transferring should consult the adviser for assistance in developing a schedule of classes for the second year.

High school students who wish to major in a field of engineering in college should plan their programs accordingly. For the following first-year courses in engineering, high school prerequisites are elementary functions or algebra IV, trigonometry, physics and chemistry.

- Math 124,⁴ 125, 126
- Physics 231, 331, 332
- Chem 121, 122, 123
- Electives⁵

Students with advanced placement in the subjects listed above may supplement their programs either with advanced courses in those subjects or with linear algebra or computer programming.

⁴Students not qualified to take Math 124 should consult the program adviser.

⁵Electives chosen from English 101, English 301, Technology 201.

Faculty Advisers: chemical engineering—Dr. D. M. King, Department of Chemistry; civil engineering—Dr. Richard Levin, Department of Mathematics/Computer Science; electrical, aeronautical, nuclear engineering—Dr. Louis Barrett, Department of Physics/Astronomy; industrial, mechanical, metallurgical engineering—Dr. Joseph Black, Department of Technology.

Fisheries

The College of Fisheries at the University of Washington provides two baccalaureate programs in fishery biology. Students may complete the first two of the four-year program at Western, concentrating on the following science-related courses and fulfillment of the University's distribution and proficiency requirements. Close consultation with the faculty adviser is essential.

- English 101, 301 or 302
- Chem 121, 122, 123
- Math 121, 124; Biology 340
- Biology 120, 210
- Electives

Faculty Adviser: Dr. G. F. Kraft, Department of Biology.

Forestry

Washington State University offers degrees in forest management and in range management. Three quarters of physical education activity should be included among the electives, and Speech 101 taken winter quarter in place of English 201 or 202. The Chemistry 121, 122, 123 series is required.

The University of Washington has seven curricula: forest management, forest engineering, outdoor recreation, pulp and paper technology, wood and fiber science, forest science and wildlife sciences. No physical education activity is required. English 201 or 202 should be taken in place of speech. Four curricula accept Chemistry 115, but three (pulp and paper, wood and fiber, and wildlife) require the 121, 122, 123 series.

A recommended curriculum in the first year follows:

- English 101, 301 or 302 or Speech 101
- Economics 201
- Chem 115 or 121, 122, 123
- Biology 120, 210
- Math 121
- Electives

Because of variations among the various forestry curricula, students are urged to consult the pre-forestry adviser as soon as possible. For some curricula, specific courses should be included among the electives.

For some of the University of Washington curricula, students may complete two years at Western before transferring. Programs must be carefully planned with the adviser.

Faculty Adviser. Dr. Hubertus E. Kohn, Department of Biology.

Home Economics

A baccalaureate degree with a major in home economics may be earned at Western Washington State College. However, one-year transfer programs are offered for undergraduate home economics majors not offered at Western. The student is advised to confer early with the institution to which transfer is being made. Program changes are under way at the University of Washington and at Washington State University. Early advisement is essential. See the department adviser for program details.

Clothing and Textiles Fashion Merchandising

- Home Economics 101, 164
- English 101, 301 or 302
- Economics 201
- Psychology 201
- Sociology 202

Additional courses may be added for Washington State University: Home Economics 150, 224; Chemistry 115; Economics 202; and a political science elective.

Foods and Nutrition

Dietetics

Institution Management

- Home Economics 120, 150, 253
- Economics 201
- English 101, 301 or 302
- Chemistry 115, 251
- Psychology 201
- Sociology 202

Additional courses may be added for Washington State University: Home Economics 101, 224; Biology 101; Anthropology 201.

Two quarters of physical education activity for each of two years is required at Washington State University. No physical education is required at the University of Washington.

Faculty Advisers: Dr. Dorothy Ramsland and Mrs. Edith Larrabee, Department of Home Economics.

Law

With rare exceptions, entrance to most law schools requires completion of the B.A. degree program. It is therefore advisable that pre-law students complete B.A. degree requirements prior to application to a law school. Although schools of law do not prescribe rigid undergraduate curricula,

pre-law students should study in areas that will benefit them in their study of law. They should not only strive to acquire proficiency in communications and language skills, as well as understanding of human, political, economic and social institutions, but also should develop objective and critical thought processes.

Suggested Courses: Political Science 250, 311, 313, 410, 411, 413, 414, 415; Business Administration 371; History 419; Philosophy 415; Sociology 454.

The Law School Admission Test—given throughout the country on five days each year by the Educational Testing Service in Princeton, N.J.—is required for admission to most law schools. Students should plan to take the test during the academic year preceding the one for which admission to law school is sought, preferably in October or December and not later than February. The test is offered five times each year on Western's campus.

Faculty Advisers: Dr. John J. Wuest, Department of Political Science, or Dr. Larry E. Swift, Department of Education.

Medical Technology

At the University of Washington, the four-year medical technology program leads to a Bachelor of Science degree in medical technology. Students at Western may complete 90 quarter credits of study, concentrating on the following required courses which parallel the university's medical technology program, prerequisites and distribution requirements.

Washington State University also offers a baccalaureate program in medical technology. Students planning to transfer to WSU may complete two years at Western, following the recommendations listed below and completing additional courses which parallel WSU's general university requirements.

Students must consult with the faculty adviser before registration.

- English 101, 301 or 302
- Chem 121, 122, 123
- Biology 101 or 120, 210
- Math 121

Faculty Adviser: Dr. G. F. Kraft, Department of Biology.

Medicine

The faculty of the School of Medicine at the University of Washington believes 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

major area of interest selected by the student in any field sufficiently demanding in scholastic discipline. No particular major is given preferential attention in selection.

Before admission each applicant must have completed the minimum requirements listed below and must have demonstrated academic proficiency in these subjects by obtaining an acceptable grade point average. In addition to the following subjects and credits, proficiency in English and basic mathematics is expected of each applicant. A bachelor's degree is encouraged, but it is not required for admission.

- Biology—15 quarter credits
- Chemistry—28 quarter credits
- Physics—14 or 15 quarter credits

In recognition of the diverse opportunities afforded the graduate in medicine, specified requirements are purposely kept to a minimum. This enables each student to pursue, as a major field of study, any area of special interest—the physical sciences, biological sciences, or humanities—and still acquire the intellectual skills necessary to the regular medical curriculum. Throughout the medical program elective time, as well as time for research and thesis, affords the student opportunities to apply knowledge and concepts of the major field to the appropriate areas of medicine.

Admission to the School of Medicine is extremely competitive. Early consultation with the faculty adviser is strongly recommended. Students should also review the School of Medicine section of the University of Washington General Catalog.

- English 101 (plus an additional 6 to 10 credits of English)
- Chem 121, 122, 123, 351, 352, 353, 354
- Physics 131, 132, 133 (or 231, 331, 332)
- Biology 120, 210, 312
- Math 121, 124 or 220

Faculty Advisers: Dr. Clyde M. Senger, Department of Biology, or Dr. Herbert A. Brown, Department of Biology.

Nursing

Students interested in professional nursing may choose one of three training programs: (1) the two-year Associate of Arts degree programs offered by many community colleges, (2) the three-year hospital-based R.N. programs, or (3) the four-year Bachelor of Science in nursing program. In each, admission is competitive, application must be made early, and pre-major preparation is required.

Western offers a complete program of courses which prepares students for admission to nursing schools—the most typical of which is the University of Washington. Course recom-

recommendations which follow are designed for admission to the university, which is required at the sophomore level.

- English 101 and 301 or 302
- Chemistry 115 and 251
- Math 121
- Psychology 201
- Sociology 202
- Humanities electives

The University of Washington School of Nursing requires a minimum of 45 transfer credits, a minimum GPA of 2.75, and completion of all university admissions requirements.

Students transferring to Washington State University may complete two years of work prior to transfer, then two more years and earn a Bachelor of Science degree in nursing.

Information on all programs is available in the adviser's office, and early consultation is encouraged.

Faculty Adviser: Mrs. Kay Rich, College of Arts and Sciences.

Occupational Therapy

Students wishing to earn a Bachelor of Science degree in occupational therapy at the University of Washington or elsewhere may complete their prerequisite courses at Western. Since graduation requirements vary among institutions, students should obtain specific information concerning them during the freshman year. Initial registration should include humanities, social science, or natural science courses comparable to those included under the arts and sciences distribution list (page 243 in the 1974-76 University of Washington catalog). Students should be aware that admission to a school of occupational therapy is highly selective.

Faculty Adviser: Dr. Alta Hansen, Department of Physical Education.

Oceanography—Biological

Students interested in biological oceanography or marine science should enroll in the B.S. or B.A. degree programs for biological science.

- English 101
- Chemistry 121, 122, 123
- Math 124, 125
- Biology 120, 210

Faculty Adviser: Dr. G. F. Kraft, Department of Biology.

Oceanography—Chemical, Physical and Geological

In most universities, courses in oceanography begin in the third or fourth years. Since the major topic is primarily a senior or graduate-level endeavor, the first two or three years of chemical oceanography can be successfully taken at Western. It is important that the prospective student establish a solid scientific background in chemistry, mathematics, and physics as a basis for completing a degree in chemical oceanography. The first two years of a chemistry major (B.S.) exemplify that type of background.

- English 101
- Chemistry 121, 122, 123
- Math 121, 124, 125
- Electives (electives in social sciences and humanities are appropriate)

For recommendations regarding work beyond the first year, consult the following departmental advisers: chemical oceanography—Dr. H. William Wilson, Department of Chemistry; geological or physical oceanography—Dr. David Pevear or Dr. Maurice Schwartz, Department of Geology.

Optometry

Schools of optometry generally offer baccalaureate, master's and doctoral programs. Western is able to provide one year of liberal arts studies as a background for more specialized training in optometry. Students are advised to transfer after their first year. Early consultation with the faculty adviser is recommended.

- English 101, 301 or 302
- Chemistry 121, 122, 123
- Biology 101
- Math 124, 125, 126
- Physics 131, 132, 133 or 231, 331, 332
- Elective

Faculty Adviser: Dr. J. J. Veit, Department of Physics.

Pharmacy

The five-year pharmacy program at the University of Washington leads to a Bachelor of Science degree in pharmacy. The final three years must be spent in residence in the College of Pharmacy. Western provides a two-year series of courses which prepare the student for specialized training in pharmacy. More detailed information is provided on pages 254-258 of the 1974-76 University of Washington General Catalog.

Washington State University offers the Bachelor of Pharmacy and Bachelor of Science degrees in pharmacy. Students planning to transfer to WSU



should refer to pages 220-222 of the 1976-78 Washington State University Bulletin.

- English 101, 301 or 302
- Speech 100
- Chemistry 121, 122, 123, 351, 352, 353, 354 and 355
- Math 121, 124 or 220
- Biology 120, 210, 312
- Physics 131, 132, 133
- Electives

The following electives are recommended for pre-pharmacy students: Econ 201; Psych 201; Arth 201, 215; courses in geography, history and philosophy.

For those interested in transferring to Washington State University, Math 121 only, and Biology 120, 210. Students should transfer after one year at Western.

Faculty Adviser: Dr. Gary M. Lamprman, Department of Chemistry.

Physical Therapy

Admission to a school of physical therapy is highly selective. Depending upon the institution, students are admitted to the professional program at the junior, senior or post-baccalaureate level.

The following courses are prerequisites for admission to most schools, including the curriculum offered by the University of Washington:

- Biology 101, 345
- Chemistry 115, 251
- English 101, 301
- Math 103, 104 or equivalent
- Physics 131, 132
- Psychology 201, plus an additional course—some require 314

- Biology 348, 349

Students must recognize that the above courses are minimum requirements and that additional course work is strongly recommended. Supplemental courses should be selected from Education 360, 361, 465; Health Education 447; Physical Education 201, 211, 302, 303, 326, 402.

Students should consult with the pre-physical therapy program adviser during the first quarter at Western.

Faculty Adviser: Dr. Alta Hansen, Department of Physical Education.

Social Work

Students preparing for admission to a professional school of social work and students interested in securing social work positions that do not require professional education may satisfy their interests by completing the B.A. in sociology, including the following *elective* courses in the major:

- Sociology 311 (in lieu of 310)
- Sociology 251 and 261
- Sociology 340, 351, 360, 333, 440, 465 and 491

Other courses strongly recommended include Sociology 353, 354, 367 and 467. For further recommendations of specific courses in sociology or cognate areas which may strengthen the student's preparation, consult with the faculty adviser.

Faculty Adviser: Dr. Charles Gossman, Department of Sociology.

Veterinary Medicine

The College of Veterinary Medicine at Washington State University requires at least seven years of study leading to completion of the Doctor of Veterinary Medicine degree. The first three years of pre-veterinary study may be completed at Western. These courses must include those required to meet the general university requirements and should include the series of specific courses recommended below. Admission is extremely competitive and students are strongly encouraged to have early consultation with the faculty adviser and to review the admission requirements on pages 263-264 of the 1976-78 WSU catalog.

- English 101
- Chemistry 121, 122, 123, 251, 371
- Biology 120, 210, 310, 312, 321, 345
- Huxley 352, 452
- Physics 131, 132, 133
- Math 121

Faculty Adviser: Dr. Clyde M. Senger, Department of Biology.

SCHOOLS & COLLEGES OF WESTERN

COLLEGE OF ARTS & SCIENCES

Dr. James W. Davis, Dean

The College of Arts and Sciences, Western's largest academic division, contains 20 departments offering 61 major programs at both bachelor's and master's degree levels. In addition to traditional majors in the humanities, social sciences and natural sciences, students may select from a variety of interdisciplinary programs or design their own majors with the help of faculty advisers.

Academic Programs Leading to Undergraduate and Graduate Degrees

American Studies	BA
Anthropology	BA, MA
Biology	BA, BS, MS
Biology/Chemistry	BS, BA/Ed
Biology/Math	BS
Biology/Physical Science	BA/Ed
Broadcast Communication	BA
Chemistry	BA, BS, MS, BA/Ed
Chemistry/Mathematics	BA/Ed
Chemistry/Physics	BA/Ed
Community Health	BS
Computer Science	BS
Earth Science	BA/Ed
Earth Science/Physical Science	BA/Ed
English	BA, MA, BA/Ed, M/Ed
Environmental Geology	BS
Foreign Languages	
(French, German, Greek, Latin, Russian, Spanish)	BA
(French, German, Latin, Russian, Spanish)	BA/Ed
(French, German, Spanish)	M/Ed
General Science	BA/Ed
Geography	BA, MA, MS, BA/Ed, M/Ed
Geography/Social Studies	BA/Ed
Geology	BA, BS, MS
Geology/Math	BS
Geophysics	BS
History	BA, MA, BA/Ed, M/Ed
History/Social Studies	BA/Ed
Home Economics	BA, BA/Ed
Industrial Arts Education	BS, M/Ed
Industrial Design	BS
Journalism	BA
Leisure Studies	BA
Liberal Studies	BA
Mathematics	BS, MA, MS, BA/Ed, M/Ed
Mathematics/Computer Science	BS
Mathematics/Economics	BA

Natural Science	M/Ed
Philosophy	BA
Physical Education	BA, BA/Ed, M/Ed
Physical Geochemistry	BS, MS
Physical Science	BA/Ed
Physics	BA, BS, MS, BA/Ed, M/Ed
Physics/Astronomy	BA
Physics/Math	BA, BA/Ed
Political Science	BA, MA, BA/Ed
Public Policy & Administration	BA
Psychology	BA, MA, MS, BA/Ed, M/Ed
Science Education	M/Ed
Self-Designed Interdisciplinary Major	BA, BS
Social Studies	BA/Ed
Sociology	BA, BS, MA
Sociology/Anthropology	BA/Ed
Speech	BA, MA, BA/Ed, M/Ed
Speech/English	BA/Ed
Speech Pathology & Audiology	BA, BA/Ed, M/Ed
Technology/Industrial Technology	BS
Urban & Regional Planning	BA
Visual Communications (VICOED)	BS
Vocational Industrial-Technical Teacher Education	BS

Admission

See previous catalog section on College Admission.

Requirements for Bachelor's Degrees

- 180 quarter hours of credit; not less than 60 credits in upper-division study
- Residence study: one full year (45 credits minimum) including the final quarter before issuance of a degree; Study Abroad programs are acceptable as resident credit to a maximum of 45 credits
- Scholarship standard: a cumulative grade average of 2.0 (C), or better, with no grades of less than C acceptable in the major, minor, supporting courses for major or minor, professional education courses, or in English composition. Admission to, and continuation in, the teacher education curriculum requires a minimum average of 2.5. Some departments have minimum grade point requirements in the major for graduation. Please check the departmental major requirements for specific information

- General college requirements: approximately 50 to 70 credits, depending upon degree of overlap with major and exemptions based on test results and previous preparation
- Major area emphasis as specified in departmental sections under Bachelor of Arts, Bachelor of Science and Bachelor of Arts in Education
- Electives as needed for the 180 quarter hours total credit

Majors and Minors

In addition to the general college requirements and other common degree requirements listed on the preceding pages, 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 advisers 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 Majors

Students desiring concentrated study in areas not listed as majors by departments of the College of Arts and Sciences may design a major in conference with faculty members. For details of this procedure, please refer to the Office of Academic Advisement or the chairman of the Department of General Studies.

Cooperative Education, Internship and Field Study Programs

The College recognizes that practical work experience outside the classroom is a valuable supplement to both the student's general education and major area studies. Thus it has arranged quarter-long internship experiences with a variety of community businesses, organizations, and governmental agencies. Students who want to apply their theoretical classroom learning to actual on-the-job situations can spend a quarter (maximum of 15 credits per student) in one of these positions. Credit will be awarded based on a satisfactory employer/faculty evaluation and fulfillment of contractual agreements. These work experience situations are arranged beforehand to accomplish specific goals agreed upon by the student, sponsoring faculty member, and employer. Students should contact the cooperative education office, Viking Union, for additional information.

A number of other internship and field study programs are offered by departments but are not

handled through the cooperative education office. For details on these, please refer to the chairman of the department concerned.

Academic Advisement

As the student completes the freshman year, usually consisting largely of courses that meet the General College Requirements, he/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 chairman 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 Information Center in Old Main.

Department Chairmen

Dr. James Bosch	Anthropology
Dr. Gerald F. Kraft	Biology
Dr. Donald M. King	Chemistry
Dr. Golden L. Larsen	English
Dr. Walter Robinson	Foreign Languages
Dr. Roscoe L. Buckland	General Studies
Dr. James W. Scott	Geography & Regional Planning
Dr. Charles Ross	Geology
Dr. Roland L. DeLorme	History
Dr. Dorothy Ramsland	Home Economics
Mr. R. E. Stannard Jr.	Journalism
Dr. Robin W. Chaney	Mathematics & Computer Science
Dr. Stanley Daugert	Philosophy
Dr. Margaret Aitken	Physical Education
Dr. W. Louis Barrett	Physics & Astronomy
Dr. Ralph E. Miner	Political Science
Dr. Peter J. Elich	Psychology
Dr. G. Edward Stephan	Sociology
Dr. Arthur Solomon	Speech
Dr. Clyde M. Hackler	Technology

COLLEGE OF BUSINESS & ECONOMICS

Dr. Robert P. Collier, Dean

The College of Business and Economics is organized into four departments: Accounting, Business Administration, Office Administration and Business Education, and Economics. These departments are mutually supportive. While degree, major and minor field programs are identified by title to a department, the internal composition and requirements of such programs draw upon the resources of the entire college.

Academic Programs Leading to Undergraduate and Graduate Degrees

Accounting	BA
Business Administration	BA
Economics	BA
Education (Business Education)	BA/Ed
Office Administration	BS
Economics	MA
Business Education	M/Ed

Objective of the College

The objective of the College of Business and Economics, working in consonance with other units of Western, is to generate and communicate knowledge, the utilization of which will lead to improving the effectiveness and efficiency of economic and other social institutions and to educate students for professions which require for their practice a systematic body of specialized knowledge in business and economics. Further, the communication of this knowledge will strengthen the liberal education of the student so that he or she can live and function more freely and constructively in our society.

For students participating in its programs, the college must assure that its curricular requirements and content (1) assure a broadly oriented liberal arts education, (2) satisfy the demands of society for undergraduate and graduate preparation in business, economics and teacher preparation in business and administrative subjects, and educate the student in the workings, administrative skills and environmental aspects of the business enterprise and other economic institutions.

Admissions

Admission to the College of Business and Economics is based upon satisfactory completion of two years (90 quarter credits) of college work with a cumulative grade average of 2.0 (C). Probationary admission may be extended to students completing lower-division course work at Western Washington State College. Students seeking such probationary admission should record their intentions with the college. Transfer students from community colleges and upper-division status at other four-year institutions should apply for admission to Western Washington State College and then, upon confirmation of admission, for admission to the College of Business and Economics. For exact information regarding the acceptability of professional courses taken at other institutions, in areas of study covered by the departments of the College of Business and Economics, prospective students should communicate with the appropriate department chairman.

The faculty of the college and of the several departments of the college reserve the right to

require successful completion of general and specific admission tests and placement tests as deemed appropriate. If the number of eligible applicants for certain programs within the college exceeds that for which space is available, acceptance into these programs will be competitive based on grade point average. Probationary admission may be granted to any applicant pending completion of such tests, completion of lower-division major and minor courses, or completion of the General College Requirements.

Requirements for Bachelor's Degree

- 180 quarter hours of credit: not less than 60 credits in upper-division study
- Residence study: one full year (45 credits minimum) including the final quarter before issuance of the degree
- Scholarship standard: a cumulative grade average of 2.0 (C), or better, with no grades less than C acceptable in the major, minor, supporting courses for the major or minor, professional education courses, or in English composition. Admission to, and continuation in, the teacher education curriculum requires a minimum average of 2.5
- General college requirements must be completed by all students before a baccalaureate degree will be granted. They may be satisfied in one or a combination of the following alternatives:
 - (1) Demonstrating proficiency through appropriate examinations
 - (2) Through challenge in the manner described under the Academic Policies section of this catalog (see "Advanced Placement and Course Challenge")
 - (3) Completion of the general college requirements as outlined in the section on All-College Requirements or an approved associate of arts degree from certain community colleges that satisfy those requirements
- Majors: major area emphasis and requirements are specified in the departmental sections
- Electives: electives may be selected as needed to ensure the required 180 quarter hours total credit, *except* that majors in accounting and business administration must complete a minimum of 72 credits in areas other than accounting, business administration and economics
- Petitioning procedure: any student who seeks 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 for such relief. The petition will be in the form of a letter in three copies addressed to the dean of the college
- Graduation and degree application: refer to the "All-College Graduation Requirements" section for procedures to be followed

Planning

The student should carefully study the requirements of his or her elected major field to maximize the productive use of time. Maximum advantage should be taken of courses applicable to the major or minor field as well as to the general requirements.

Department Chairmen

Mr. Byron E. Haglund Accounting
Dr. Eugene Owens Business Administration
Dr. K. Peter Harder Economics
Dr. Hubert N. Thoreson Office Administration/
Business Education

SCHOOL OF EDUCATION

Dr. Arnold M. Gallegos, Dean

Western Washington State College has a distinguished national reputation for the excellence of its teacher preparation programs. During 1972-73, in nationwide competition, it received two successive major awards from the American Association of Colleges for Teacher Education and another comparable honor from the National Education Association's Association of Classroom Teachers. In 1974 the College was honored with a national Pacesetter Award by the U.S. Office of Education. These awards were for the College's pioneering undergraduate program which integrates students' professional course work with immediate application of that course work in an off-campus residence center.

Both undergraduate and graduate preparation and research programs in education have received substantial federal grants. These grants in 1975 amount to more than \$425,000, and in 1976 more than \$716,600, including stipends for students. They have enabled students and faculty to pursue studies in a variety of community settings with children and adults representing diverse social, cultural and economic backgrounds.

The School of Education encompasses many departments within Western Washington State College. These departments of the College cooperate in teacher preparation. The departmental sections of this catalog describe academic major and minor concentrations offered throughout the College. Faculty members from various departments concerned with the preparation of school personnel are members of the School of Education faculty, headed by the dean of the School of Education. This organization provides a clearinghouse for exchange of information and an agency for coordination of departmental efforts in programs of teacher education. The Department of Education is responsible for developing and offering professional studies and for coordinating the elementary programs.

The Teacher Curricula and Certification Council, established by the constitution of Western's Senate, has college-wide jurisdiction over teacher education curricula, teacher certification programs and professional preparation programs proposed by certification consortia in which the College participates. The deans of the School of Education chairs this council.

Academic Programs Leading to Undergraduate and Graduate Degrees

See departmental listings for
academic area programs BA/Ed, M/Ed
Professional concentration (elementary) BA/Ed
Special Education BA/Ed, M/Ed
Education (various fields) M/Ed
Graduate programs leading to certification
in School Administration and to Educational
Staff Associate Certification in School
Counseling, Speech Pathology & Audiology,
and School Psychology M/Ed, MA

Admission to Teacher Education

The College shares with the profession as a whole the important responsibility for the selection of potential teachers. Admission to the College does not automatically admit the student to teacher education programs.

If considering teaching, students with prior records involving a felony should report to the Certification Officer, Miller Hall 204, prior to any course work in education.

Admission Standards

These standards apply generally to all teacher preparation programs. Some variation occurs in their application for students enrolling in the Professional Concentration for Elementary Teachers, as indicated in the summary of that program which follows, and in more detail in bulletins supplied to applicants for the Professional Concentration.

English Competence—A grade of B in the general education course in English composition is generally acceptable evidence of competency. All secondary education candidates will be required to take and pass a common English competency test during Education 398 or prior to admission to Secondary Education.

Speech Competence—All candidates for admission to teacher education are expected to demonstrate adequate speaking ability. A grade of C or better in Speech 100, 302, or similar performance course is deemed evidence of minimal competence. Those not taking such a course may have their speech competence evaluated in Education 310, 398 or 399 with the approval of the appropriate adviser.

Scholarship—A cumulative grade point average of 2.5 in all course work to be counted toward the degree is required for admission to all certification programs. This must be achieved prior to consideration for admission. (Note: a student may petition for an exception to any of the standards above.)

The above standards are to be considered for initial admission to teacher education programs during the student's first professional course and are among the factors of concern in continual evaluation as the student progresses through a program for teacher certification.

A student, after being admitted to teacher education, must maintain a minimum 2.5 grade average.

Credit is given in courses graded A, B, C, D, S and P. However, the grade of D represents poor work which is not acceptable in the major, minor, supporting courses for majors or minors, English composition, professional education and educational psychology courses required for a degree or certificate nor for fifth-year courses.

Application

The student will apply for admission to a specific certification program during the introductory professional course, or before taking a second professional course. Such application is to be made at the Advisement Office appropriate to the program selected.

Teacher Certification Requirements

Washington State Provisional Certificate

The provisional certificate is valid for three years from the date of issuance, renewable for an additional three years after completion of a portion of the fifth year. (See fifth-year requirements for the standard certificate.) For the first year, the provisional certificate is restricted to teaching at the level and/or subject area for which the teacher is recommended by virtue of his or her preparation.

Candidates for the provisional certificate must be citizens of the United States. Non-citizens may complete the requirements for and receive the Bachelor of Arts in Education degree but will not receive a Washington teaching certificate. Permanent residents intending to become citizens may obtain special permits from the Office of the State Superintendent of Public Instruction.

Certification Patterns and the B.A. in Education

The B.A. in Education program at this College is designed to meet state requirements for the provisional certificate for all levels of the public schools. Teachers who complete these requirements may qualify also for certification in many other states.

Program requirements for the B.A. in Education degree and teacher certification may be classified in three categories:

- (1) General college requirements for the B.A. degree.
- (2) Major and minor concentrations. Concentrations vary according to the student's choice of teaching level and/or subject area. These variations are indicated with each program in the outlines which follow. (See also departmental sections of the catalog for specific requirements in majors and minors.) Although a minor is not required for the B.A. in Education degree, elementary teachers need both academic and professional concentrations to qualify for a teaching certificate.
- (3) Professional studies. Requirements in this category vary according to the program chosen and according to campus-based or field-centered options. Common to all are courses in educational foundations, educational psychology, instructional strategies and supervised teaching in a public school setting. (See program outlines which follow for variations in professional requirements.)

Students desirous of certification who are pursuing a B.A. or B.S. degree in a specific area (e.g., biology, chemistry) should contact the major department and the Department of Education advisers concerning the additional course work required.

Course listings in education are found in the Department of Education section of the catalog.

Department Chairman

Dr. Alden L. NickelsonEducation

FAIRHAVEN COLLEGE

Dr. Joseph D. Bettis, Dean

Fairhaven is a unique liberal arts college, designed to provide the advantages of a small undergraduate college, while at the same time providing access to the resources of a large institution. A Fairhaven student has the best of both worlds; the personality, intimacy, informality of a small

college, and the technical and educational facilities of a larger school.

Classes are small, independent studies are encouraged, evaluations are personal and detailed, motivation is considerate and individualized. Fairhaven does not use grades; all classes are on a pass or no record basis. Academic credits for a particular project are entered into a student's record on submission of a written evaluation by the faculty sponsor and a student self-evaluation. A close relationship between students and their faculty tutors or advisers is essential to this kind of evaluation.

Emphasis is placed on developing skills of inquiry and problem-solving, and on people defining themselves as human beings in terms of an integrated, life-long liberal education. Students are challenged to bring what they learn to bear on the basic concerns and crucial problems of human existence, to experiment, to do research and to act. This style of education affords not only a liberal education, but also facilitates the development of basic skills needed for a variety of vocations. For those working toward a degree, *Fairhaven offers the option of choosing either a major as determined by one of the other colleges at WWSC, or of designing an interdisciplinary program of advanced studies more appropriate to personal needs and interests.*

The idea of a living-learning democratic community is important at Fairhaven. Students, staff and faculty work with each other as individually significant and worthwhile human beings sharing a common experience. Students are involved at every level of decision within the college, and have full voting membership on all committees. All meetings of the faculty and other constituent bodies are open, and all members of the community are made authentically responsible for the nature of the college and the direction it should take.

Not all students will be happy at Fairhaven. However, for those who find the usual process of learning variously restrictive, Fairhaven provides opportunity for both wide exploration and intensive concentration. Fairhaven should be considered especially by those who wish to take an active role in their own education—by those who wish to individualize their studies, to develop and advance at their own pace, to create an independence of spirit and mind at once serious and joyful, practical, committed and humane.

Curriculum

Fairhaven's curriculum recognizes that *how* one learns changes as one progresses through the learning process; it complements, directs, and supports the students at each stage of their progress; its focus is on the learners and their development.

Stage One

The first stage is one of exploration, what Alfred North Whitehead, upon whose theory of learning Fairhaven's curriculum is patterned, called a period of "romance." This is a time to explore what's out there to be learned, a time for introductions to areas and methods of study, ways of knowing, purposes of an education, and a time for study of the self in relation to intellectual and social experiences. Special seminars are offered in which learners new to college in general and Fairhaven in particular are encouraged to explore and develop their interests, are taught ways of learning independently and in cooperative groups, and are instructed in the improvement of their reading, writing and research skills. A broad range of introductory courses are offered, and to ensure that their explorations have breadth, students are encouraged to study with as many resource people as possible.

The exploratory stage of learning usually lasts from three to five quarters and ends—or rather, the learners naturally move to the next stage in the process—when they are ready to concentrate on their chosen subjects for a period of time. With the advice and help of their tutors, students select five topics which have engaged their interest during their initial studies; they also pick two faculty members and one advanced student with whom they feel comfortable and, for a time, talk about these subjects that excite them, answer questions and receive suggestions about further study of these topics, especially about the topic or topics upon which they plan to concentrate during the second stage of their learning. When the group is assured the student is ready to proceed, and when the student has also demonstrated to two faculty members that she or he can write competently, the transition to stage two is completed.

Stage Two

The satisfactions during the second stage are different from those of stage one and focus on coming to know one subject as deeply as possible, using the breadth of acquaintance gained in the first stage as a base upon which to build. This period of concentration can be pursued in two ways. (1) Some students may find their areas of interest covered in one of the majors offered in another college of Western. For them, completion of stage two is signaled by completion of the requirements for that major and, additionally, by presentation to the tutor of a statement discussing the rationale, content and value of that major. (2) Others may find that their area of interest crosses the disciplines of two or more standard majors, or even that no standard major treats what they wish to study. In consultation with a concentration adviser, these students may construct for themselves a *Fairhaven Interdisciplinary Concentration*,

which combines Fairhaven studies with a minimum of 50 non-Fairhaven credit hours. Approval of the plan for the concentration should be secured soon after beginning stage two. Completion of stage two for these students is signaled by approval of the completed concentration.

Stage Three

Study at Fairhaven culminates in at least one quarter of working with faculty and other advanced students to demonstrate an understanding of the implications of the specialized study and attained skills and to search for ways in which one's focused studies relate to other areas of knowledge and to the world. Students in stage three are asked to participate in at least one advanced seminar, and to be involved in some activity which shares with the community the fruits of their study, through teaching, a performance, a presentation, or social action. The process of education does not simply stop with the completion of college work; it leads somewhere, hopefully to wisdom, and wisdom, Webster's tells us, is the "intelligent application of knowledge."



The Fairhaven College Curriculum

Fairhaven curricular structure can be schematized as follows. In addition to completion of all three stages and transition requirements, a minimum of 180 credits must be earned.

Stage I—Exploration 3 to 5 Quarters

Introduction to areas and methods of study; development and assessment of educational goals.

Transition

- (1) Study with several Fairhaven faculty.
- (2) Demonstration of writing competency.
- (3) Discussion (written or oral) on five topics selected by student under advisement, with two faculty and one advanced student.

Stage II—Concentration 6 to 8 Quarters

Acquisition of extended knowledge and study in depth.

Transition

- (1) Approval of: (a) completed major at WWSC; or (b) Fairhaven interdisciplinary concentration.
- (2) Presentation of a statement discussing content, rationale and value of major; for those doing a major this is additional, for those doing a concentration this is an integral part of the final draft.

Stage III—Generalization & Application One Quarter

Practical application of acquired learnings and skills; consideration of ramifications of one's studies and relation to other areas of knowledge.

Transition

- (1) Community sharing activity: e.g., teaching, a performance, a presentation, social action.
- (2) Participation in at least one advanced seminar.

Curricular Options

Independent Study, Field Placements, Internships

In addition to the courses offered each quarter, students are encouraged to design their own learning situations. A student may take an unlimited amount of work at Fairhaven on this basis. Procedurally, independent study centers around a working contract between the student and a faculty sponsor. Other off-campus experiences are coordinated through a program of Vocations for Social Change which makes available various field placements and volunteer internships that are relevant to academic programs and are often matched with specific course work.



Study Groups

Study groups, or *Coordinated Independent Study Projects*, provide an opportunity for a group of students to organize their independent studies around some common theme or facility, and enable them to share their studies as they contribute to the common focus or project. The study groups have been predominantly student organized, although it is not unusual that a faculty member will organize or involve him/herself in one of the groups.

Travel Study

Individual independent study projects may incorporate travel with research and readings on special topics. Class travel study is also part of Fairhaven's curriculum. Such groups have pursued their studies in England, Greece, Japan, Mexico and South America, New York and San Francisco.

Student-Initiated Classes

Stage three of the Fairhaven curriculum encourages students to share their learning with others by teaching classes. A student may, with faculty sponsorship, teach a class while enrolled in any stage of the curriculum. The Performing Arts Workshop is a specific application of this which enables students to learn from or teach each other.

Professional Education

WWSC's School of Education provides a choice of majors and also administers a program which has been jointly developed for students who are interested in obtaining teaching credentials. The Fairhaven Education Committee exists to help advise students, to provide a channel of communication between the School of Education and

Fairhaven College, and to develop courses and experiences aimed at program improvement.

A listing of Fairhaven College faculty and a sampling of recent courses appear in the alphabetical divisional and departmental section of this catalog.

Visitors

Visiting faculty and guests are brought to Fairhaven to expose students to more diverse viewpoints and personalities than exist on campus, and to do this in a way which is personal and direct. These guests meet with classes, offer workshops, join students for informal discussions and meals, and frequently live in the residence halls.

Persons who have shared their knowledge and talents as visiting faculty include: Ti-Grace Atkinson, co-founder of the New York City chapter of NOW, co-founder of the Feminists, author of *Amazon Odyssey* (visited academic year 1976-77); Mary K. Becker, Washington State Legislator, author of *Superspill* (visited spring quarter, 1977); Annie Dillard, winner of the 1975 Pulitzer Prize for her novel *Pilgrim at Tinker Creek* (visited spring quarter, 1977); John Bremer, visiting professor of education at Western Washington State College; Anthony Wilden, professor of communication studies, Simon Fraser University, author of *The Language of Self and System and Structure: Essays in Communication Exchange* (visited fall quarter, 1976); Hubert Locke, dean of the College of Public Affairs and Community Services, University of Nebraska at Omaha (visited fall, 1975); John S. Williams, associate professor of humanities, Raymond College (on exchange fall quarter, 1974); William Childress, writer (visited spring, 1973); Barbara Lane, anthropologist (visited fall, 1972); and Walter Z. Armstrong, jazz musician (visited fall, 1971).

Other guests have included: Giovanni Costigan, professor emeritus of history, University of Washington (1976); Dan Ellsberg (1976); Earl Robinson, songwriter (1975); Malvina Reynolds, folksinger (1974); Eli Zaretsky, political scientist (1973); Otto Larson, professor of sociology, University of Washington, member of the Commission on Pornography (1972); Dixy Lee Ray, then with the Pacific Science Center (1970); U.S. Supreme Court Justice William O. Douglas (1969).

Special Programs

The Upside-Down B.A. Degree

The usual route to a B.A. calls for the general education experience to take place during the first two years of college and for the specialization in a major area to be completed in the junior and senior years. Under this program, students who have a strong professional associate of arts or technology degree and a desire to continue their education may transfer their technical specialization as a major and complete two years of general studies at Fairhaven.

Candidates for admission to the Upside-Down Degree Program follow the same procedure as those seeking regular admission, except that letters of recommendation are required from two persons who are in a position to comment on the quality of the applicant's academic work. The words *Fairhaven Upside-Down Degree* should be written at the top of the standard application to Western.



The Center for Urban Studies

The Center for Urban Studies is a Seattle-based program of Fairhaven College which serves the out-of-school urban adult. The center maintains close ties with the Seattle inner-city community. Students, faculty and staff live and work in the city, and many community people have been involved in center classes on an informal, audit basis.

In order to graduate from Fairhaven College through the center program, a student must complete the urban studies curriculum. Admissions criteria for Western Washington State College apply to prospective center students. An additional center application form and a personal interview are required. For further information, contact Dr. Barry Mar, director, Center for Urban Studies, 105 14th Avenue, C-5, Seattle, Washington 98122.

Residential Program

The Fairhaven Residential Program encompasses several options for living arrangements and life-styles, student participation at all levels of decision making and control, diversity of age groupings, crafts workshops and a full program of student activities.

Fairhaven College facilities include 12 residential living towers, each housing from 30 to 50 residents in a variety of living styles. Students can choose a single room, a double with or without a roommate, an apartment, or a cooperative dorm where all 30 residents of the living unit cooperatively purchase and prepare their own food.

Although the residential program and the Fairhaven academic program complement each other, students can elect to participate in one without the other. The residential program has appeal for many students whose studies, both the general studies and the major, are undertaken in other divisions and departments on Western's campus. Among Fairhaven residents are older adults who participate in a live-in program called the *Bridge Project*. Also, there are children on campus who attend either the Cooperative Grade School or a Day Care Center which provides for children of Fairhaven and Western students and staff.

In addition to the diversity of age groups, the residential program offers a unique combination of activities and facilities to residents on the Fairhaven campus. A variety of crafts workshops are located in the residential towers and the main building, and other facilities include a game/recreation room, television lounge, coffeeshop, and several other lounges. There is also a full activity program of dances, movies, informal events and other special programs that student

planning groups initiate during the year. Additionally, residents at Fairhaven are eligible to participate in a full range of activities (including plays, concerts, athletics, clubs) available on the main campus through Associated Students at Western.

The Bridge Project

The Bridge Project is one of the ways Fairhaven enriches and diversifies the learning environment. The major component of the project is the 55-plus age group residing on campus. These "Bridgers" participate in activities, classes, workshops on the Fairhaven campus along with regularly enrolled students. Many are enrolled for interest only, but they may also work toward a bachelor's degree by following regular admission and enrollment procedures. A second component of the Bridge Project is a day-care facility located on campus and serving approximately 45 children ranging in ages from two to five. A third component is for students in their middle years. Such persons may be regular degree candidates or they may wish to enroll for short periods of time for reasons of personal growth and enrichment. The informal, flexible, self-designed educational possibilities at Fairhaven make this possible.

WomenSpace

The WomenSpace Collective located at Fairhaven College offers a variety of programs including the WomenSpace Library, a special collection of feminist publications; the Chrysalis Gallery, which displays art reflecting a particular consciousness of women, feminist studies and forums; and PR/Outreach programs designed to reach women outside the immediate Fairhaven College community. The Women's Co-op provides a supportive atmosphere and a collective lifestyle for women involved in the Fairhaven and Western College communities.

Fairhaven Workshops

The Fairhaven workshops are a collection of art/craft facilities, programs and student activities. Among the workshops, there is a ceramic studio, a darkroom, a stained glass workshop, a textiles workshop, a woodshop, a women's center and gallery, a media center, a Fairhaven community newspaper (*Tuna Gas News*), a student "Vocations for Social Change" work/study office, and an organic gardening/alternative energy/alternative life style program called Outback. Each of the programs was initiated by students and exists in the context of the Fairhaven living-learning program. Each provides facilities adequate to work in the medium; however, they are not professional

studios. Many workshops are run cooperatively with participants sharing some of their tools and materials.

The workshops exist both for casual pursuit of crafts as well as for academic work. Students that are serious about a particular workshop may arrange to get credit for their work either through participation in classes or through independent study projects with a Fairhaven faculty member.

Community Artists Program

The Community Artists Program brings prominent local artists in a variety of media—drawing, painting, ceramics, textiles, photography, music, dance—to the campus for various lengths of time. Thus students are able to learn from a local artist who is actively working in that medium in the community. The program not only provides excellent instruction for beginning students interested in a particular artistic medium, but also provides an opportunity for Fairhaven to support community artists, and for the artists to have an option to teach as well as work. It helps establish a relationship between Fairhaven students and the artistic community in and around Bellingham.

Student Publications

Fairhaven promotes publication of a wide variety of creative expression including monographs, collaborative studies, reference works and guide books, poetry and fiction collections. Numbering among those are: *The Development of Space in Painting* by Richard Newman; *The Fairhaven Food Jar*; *Patchwork Quilt* (stories from the lives of those in the Bridge Project); *Border Crossings* by Marlene Nesary (co-winner of the Leslie Hunt Memorial Poetry Prize); *Physicians Directory for Whatcom County* (one of the few such consumer-oriented efforts in the country); *The Style of Education* (a collection of Fairhaven concentrations); a compilation of student papers written under the direction of visiting professor Anthony Wilden of Simon Fraser University; and an anthology of creative work.

Fairhaven College Alumni

Since 1970, over 400 students have graduated from Fairhaven. Seventy-two per cent of Fairhaven's graduates have earned Bachelor of Arts degrees, 22 per cent Bachelor degrees in Education, and six per cent Bachelor of Science degrees.

Fairhaven seeks to maintain a unique relationship between education and career. Our communication with graduates indicates that the academic program informs and is informed by the realities of contemporary society. Recent graduate surveys show that roughly two-thirds of the alumni are employed and one-third of the alumni pursue graduate and professional studies.

Admissions

Procedure

Candidates for admission to Fairhaven College must meet the general admissions requirements of Western Washington State College, and should first apply for admission to Western via the *Uniform Undergraduate Application for Admission to Four-Year Colleges and Universities in the State of Washington*. The words "Fairhaven College" clearly written at the top of this form will ensure that a Fairhaven application will be sent promptly. The Fairhaven application seeks information of a more subjective nature about the student's past experiences, academic expectations and plans as they may relate to productive participation in programs at Fairhaven.

The standard application to Western and all transcripts should be sent to the Office of Admissions, Western Washington State College. Fairhaven College maintains close communications with that office. The Fairhaven application form can be sent directly to Fairhaven's Admissions Office.

Special Students, Auditors, Exceptions

Persons who do not meet the usual entrance requirements will be considered on an individual basis as described in the general section on admission at the front of this catalog. The Fairhaven application will be considered after admission to Western has been granted.

Accepting the Offer of Admission

Upon admission to Western Washington State College, the student is sent a notice requesting a payment toward tuition and fees in order to confirm the intent to enroll. This payment can be delayed until the applicant has been notified of admission to Fairhaven College.

Other Important Items

Information elsewhere in this catalog regarding requirements and procedures related to health history, required examinations (not generally used to determine admissibility), residency, tuition, and financial aid are all applicable to Fairhaven students. Questions may be addressed to the appropriate office of Western Washington State College.

More

Interested? Wish to visit? Need more information? Write to Hannah Wegner, Director of Admissions, Fairhaven College, Bellingham, Washington 98225. A Fairhaven brochure is also available.



COLLEGE OF FINE AND PERFORMING ARTS

Dr. William A. Gregory, Dean

The College of Fine and Performing Arts came into being January 1, 1976. It brought together for the first time the departments of Art, Music and Theatre/Dance. The new configuration will allow Western to supply integrated training in the arts by more efficient use of resources and facilities. It will also allow Western to provide an enriched artistic atmosphere through the improvement of local performances and displays in art and the establishment of integrated programs which will broaden students' skills on the base of historical knowledge and experience.

Academic Programs Leading to Undergraduate and Graduate Degrees

Art	BA, BA/Ed, BFA, M/Ed
Art History	BA
Dance	BA
Music	BA, MA, BA/Ed, M/Ed
Theatre	BA

Admission

A student is admitted to the College of Fine and Performing Arts when he has been admitted to Western Washington State College and has officially declared and been accepted as a major in any one of the three departments of the college. Advisement is carried on through the department and through the office of the dean of the College of Fine and Performing Arts.

Requirements for Bachelor's Degree

- 180 quarter hours of credit; not less than 60 credits in upper-division study
- Residence study: one full year (45 credits minimum) including the final quarter before issuance of a degree; Study Abroad programs are acceptable as residence credit to a maximum of 45 credits
- Scholarship standard: a cumulative grade average of 2.0 (C), or better, with no grades of less than C acceptable in the major, minor, supporting courses for major or minor, professional education courses, or in English composition. Admission to, and continuation in, the teacher education curriculum requires a minimum average of 2.5. Some departments have minimum grade point requirements in the major for graduation. Please check the departmental major requirements for specific information
- General college requirements must be completed by all students before a baccalaureate degree will be granted. They may be satisfied



in one or a combination of the following alternatives:

- (1) Demonstrating proficiency through appropriate examinations
 - (2) Through challenge in the manner described under the "Academic Policies" section of this catalog (see "Advanced Placement and Course Challenge")
 - (3) Completion of the general college requirements as outlined in the section on All-College Graduation Requirements or an approved associate of arts degree from certain community colleges that satisfy those requirements
- Major area emphasis as specified in departmental sections under Bachelor of Arts, Bachelor of Science and Bachelor of Arts in Education
 - Electives as needed for the 180 quarter hours total credit

Majors/Minors

In addition to the General College Requirements and other common degree requirements, a candidate for a Bachelor's degree must complete a major from one of the departments within the College of Fine and Performing Arts. A minor is optional.

Student/Faculty-Designed Majors

The student shall initiate the process by a conference with the dean of the college; the dean will recommend a certain faculty member(s) and the student will obtain their consent to serve as his/her committee. The student then will approach the department chairman(men) who will be asked to recommend the faculty member(s) to the dean. The dean will officially appoint the student's

committee. All student/faculty-designed programs must have the approval of the Curriculum Committee of the College of Fine and Performing Arts and this approval must come after 45—and before 90—credits are completed.

Interdisciplinary Majors

A cross-disciplinary major is now being worked out by the Curriculum Committee of the College of Fine and Performing Arts. This major, which will eventually lead to a degree in Fine and Performing Arts, will demand work in all three departments plus interdisciplinary courses. Students interested should consult with the dean of the College of Fine and Performing Arts.

Department Chairmen

Dr. Thomas Schlotterback Art
 Mr. Philip Ager Music
 Mr. Dennis Catrell Theatre/Dance

HUXLEY COLLEGE OF ENVIRONMENTAL STUDIES

Huxley College is an upper-division program that focuses on problem-oriented study concerning man and his environment. It is an interdisciplinary college concerned with the physical, biological, social and humanistic dimensions of environmental problems.

Academic Programs Leading to Undergraduate and Graduate Degrees

Ecosystems Analysis	BS
Environmental Education	BS
Environmental Health	BS
Environmental Planning	BS
Environmental Policy & Administration	BS
Environmental Systems & Simulation	BS
Environmental Studies (Generalist Program)	BA
Human Ecology	BS
Marine Resources	BS

Huxley Philosophy

The college was named for Thomas Henry Huxley, the father of the eminent British family of scientists and writers. The following quotation from his grandson gives a philosophical cornerstone:

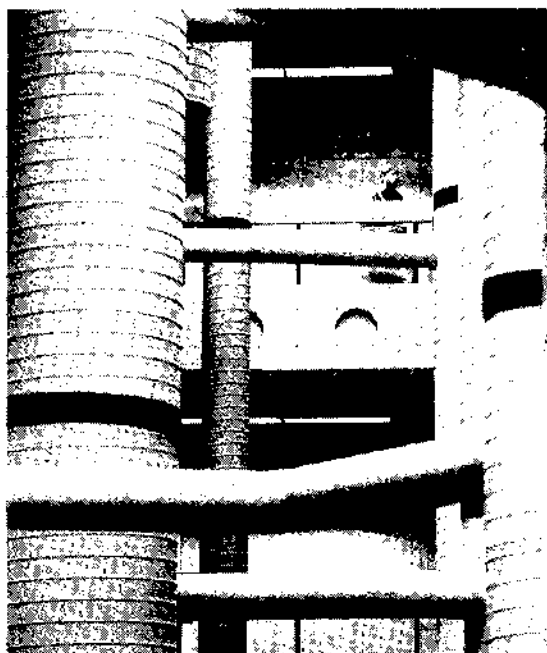
Sooner rather than later we will be forced to get away from a system based on artificially increasing the number of human wants, and set about constructing one aimed at the qualitative satisfaction of real human needs, spiritual and mental as well as material and physiological.

— Sir Julian Huxley, *The Humanist Frame*

Statement of Purpose

The purpose of Huxley College is to discover, assemble, integrate and disseminate knowledge toward the resolution of environmental problems for the enhancement of human life. Examples of environmental problems Huxley is concerned with include environmental degradation, resource exploitation, destructive land use, congestion, and ecosystem disruption and destruction. Other areas of investigation are energy and energy use, population size and effects, aesthetic form, wildlife conservation, open space utilization and the productive use of leisure time (recreation). Toward this purpose, Huxley engages in the following academic activities:

1. The discovery of new knowledge or new ways of organizing existing knowledge. Faculty members and students are engaged in research dealing with such topics as the effects of fluorides upon ecosystems, the ecological effects of terrestrial and marine oil spills; water quality in nearby Puget Sound; and the development of environmental attitudes and value changes.
2. The integration and assembly of existing knowledge into more comprehensive systems, through activities such as courses, lectures and media presentations, and through publications.
3. The dissemination of information to students and faculty of Huxley, to the Western Washington campus, the community and other environmental professionals.
4. The application of knowledge and skills to environmental problems.



Goals of the Undergraduate Program

Huxley College offers multidisciplinary study encompassing all dimensions of environmental problems. In addition to traditional coursework, the college is concerned with helping students develop professional skills. Problem-oriented study is stressed at Huxley.

Most of the current activity at the college is devoted to undergraduate teaching. A successful program of education must be flexible and dynamic to meet student needs as well as social needs. The Huxley undergraduate program has been planned to help a student develop the following qualities by the time of graduation:

1. A synthetic, holistic understanding of environmental studies, as well as adequate technical information for making responsible career decisions.
2. Problem-resolving competence; i.e., abilities in problem perception, definition, analysis and synthesis.
3. A sense of appreciation for quality in one's environmental surroundings.
4. An awareness of individual and social ethics, including some foundation of a personal ethic.
5. An awareness of the cultural characteristics of this and other cultures, as those characteristics affect the environment.

Admissions

Pre-Huxley

Freshmen and sophomores who wish to enter Huxley College should apply to Huxley to receive advisement and assistance in completing a general education program and concentration preparation. They must reapply when they are eligible for admission to Huxley.

Regular

Admission normally requires completion of one of the Huxley general education options and junior standing (90 or more quarter credit hours). Upper-division students with up to two deficiencies in their general education program may also be accepted, but the remaining courses will be required for graduation.

Students transferring to Huxley from other institutions must first be accepted by Western Washington State College. Applications should be directed to WWSC and should designate "Huxley College" on the application form. After notification of admission to Western is received, the Huxley application form should be submitted to Huxley College.

Students already attending Western should apply to the Huxley office for application materials.

All students who apply will be given an evaluation of their college work with respect to General Education Option I (or Option II if appropriate). Students with more than two course requirements remaining in a Huxley general education option are encouraged to enroll in the College of Arts and Sciences, complete the outstanding requirements, and then renew their application for admission to Huxley College.

Withdrawals

Huxley students who decide to pursue a major in one of the other colleges of Western should so inform the Huxley office and they will be withdrawn from Huxley.

Requirements for Degrees

Undergraduate Degrees

Huxley College offers a Bachelor of Science, Bachelor of Arts, minor in Environmental Studies, and a minor in Environmental Education. Students must be in residence at Huxley for a minimum of three quarters before graduation.

Bachelor of Science Degree with Major in Environmental Studies

- 180 quarter hours of credit, minimum
- General education program
- Huxley core (core courses, problem series, seminars) and a concentration

A second major may be taken in any unit of WWSC.

Bachelor of Arts Degree

- 180 quarter hours of credit, minimum
- General education program
- Huxley core courses, seminars, generalist requirement, structured electives

Minor in Environmental Studies

A minimum of 25 credit hours, including:

- Hux 301, Challenge of Survival (4)
- Hux 330a, Applied Ecology (3)
- Hux 350a, Introduction to Pollution (4)
- Hux 335, Human Ecology (4), or 432, Cultural Ecology (4), or 470, Environmental Ethics (4)
- Hux 311, Introduction to Environmental Planning (4), or 383, Environmental Economics (4), or 480, Urban Economics (4)
- At least seven credit hours of electives from Huxley courses

Minor in Environmental Education

- Hux 301
- Hux 371, and three courses from the following Huxley courses: 311, 335, 350a, 377, 383, 417, 430, 436

General Education Requirement

Huxley recognizes three options for completion of a general education program. Option I is the recommended guideline to students planning pre-Huxley programs. Students entering with Options II or III may have to make up deficiencies in some areas as a prerequisite to taking certain Huxley courses, especially if they have taken natural science courses designed for non-science majors. In addition, students entering specific Huxley concentrations are advised that concentrations may have more rigid admission requirements.

Option I—Huxley General Education Program

Natural Sciences (four areas)

- Biology (two courses): either (a) Biol 120 and 210, or (b) Biol 120 or 210 plus one other biology course above the 101 level
- Chemistry (one course): Chem 115 or 121
- Physics (one course): either (a) one physics course above the 101 level, or (b) one chemistry course beyond Chem 121
- Earth Science (one course): either (a) Geog 203, or (b) Geol 211 or 214

Mathematics/Computer Science (two courses)

- Math 121, plus either Math 122, or CS 110 and 124, or Math 240

Humanities and Communications (four courses)

- At least one college-level history course, plus English 202, plus at least two other courses

Social & Behavioral Sciences (four courses)

- Econ 202, plus at least three other courses

Option II—Other General Education Program

The completion of a recognized general education program from the other colleges at WWSC, which includes the following seven course requirements:

- Biology above the 101 level
- Chemistry above the 101 level
- Physics above the 101 level (or a second course in chemistry)
- Geology above the 101 level or Geog 203
- Calculus (Math 122) or pre-calculus algebra (Math 121)
- English 202
- Econ 202

Students using Option II are urged to model their pre-Huxley programs as closely as possible after Option I.

Students entering the teacher education option of environmental education should seek special

advisement regarding their general education requirements for entrance.

Option III—AA or AAS Degree

Since many students enter Huxley from community colleges, Huxley also recognizes as fulfilling the general college requirements the completion of an AA or AAS degree program from a community college with which WWSC has an agreement, including completion of one course in each of the four natural science tool areas. Students entering under Option III are urged to model their pre-Huxley programs as closely as possible after Option I.

Core Courses (10 credit hours required)

These courses are designed to give all students a common background in environmental concepts essential for comprehension of man, his natural and social environment, and his reliance and influence on the environment.

Courses in biology and chemistry are recommended as prerequisite to these core courses.

- Huxley 304, Man, Society and Environment I (5)
- Huxley 305, Man, Society and Environment II (5)

Problem Series

Problem series is recommended for all students but is a requirement for those in a B.S. academic program.

Students at Huxley are expected to carry out independent study pertaining to their educational objectives. The objective of problem series is to give the Huxley student the opportunity to focus his energy, experience and training upon a problem of the environment, primarily to learn (a) how to identify a problem; (b) what constitutes an "environmental" problem; (c) how his experience and knowledge has prepared (or failed to prepare) him to perceive and work on environmental problems; and (d) methods and strategies of problem identification, definition and solution.

The problem series is undertaken together with one or more tutors from the Huxley faculty and may be several individual problem investigations or a series of steps in a major investigation. It may take the form of a library, laboratory, community or internship experience. All problem series must be concluded with a recorded statement (written, taped, filmed or graphically portrayed) describing the process and the outcomes of the investigation or internship. Two bound copies of the final report are submitted by the graduating student; one of these is kept on file in the Huxley Environmental Reference Bureau.

Problem series consists of Huxley 398 (2) plus at least ten credits of Huxley 498.

Seminars (6 credit hours required)

The seminars serve as meeting grounds for faculty and students. Students are encouraged to initiate and conduct seminars. Seminars allow detailed study of particular topics and serve to increase rapport between students and faculty of different disciplines.

Generalist Requirement

(59 credit hours; for B.A. degree)

The Bachelor of Arts degree requires breadth in environmental studies. The courses of the generalist requirement stress this breadth as well as the importance of an interdisciplinary approach to environmental studies. Courses required are Huxley 311, 330a, 350a, 353, 383, 436 and 470 (27 credit hours). Structured electives, i.e., courses selected under advisement from the student's tutor, account for 32 credit hours and may include problem series credit and/or College of Arts and Sciences courses. Huxley courses may be chosen from one or a number of concentrations.

Graduate Degrees

Huxley College offers work toward an M.S. degree through selected departments of the College of Arts and Sciences. Joint programs include specializations in Environmental Planning through the Department of Geography and Regional Planning, and Applied Biology through the Department of Biology. Students interested in these programs should contact the Dean of Graduate Studies of WWSC, the Dean of Huxley College and the chairman of the department involved.

Huxley concentration requirements and course descriptions are found in the alphabetical divisional and departmental section of this catalog.

Academic Regulations

Students may take any Huxley course for a grade (A, B or C) or for pass (P); a D grade may be awarded for credit in the core course, seminars and problem series. At the time of registration students must indicate the grade or pass option for each course. Some courses may be offered with satisfactory/unsatisfactory (S/U) grading, which implies that for such courses a student may receive only S or "no credit." Students may withdraw through the Huxley office from any Huxley class without penalty at any time during the quarter. If

a student's work is not satisfactory, the instructor may withdraw the student from the class at any time during the quarter. There is no record on the transcript of courses from which a student has withdrawn. Huxley courses which form part of the WWSC general college requirements are graded on an A-F basis.

An incomplete grade (K) may be given for unfinished work in a course. It is the student's responsibility to complete the work and ensure that a grade is issued within one year after receiving the K. If work is not satisfactory, or not completed, the K will remain on the student's transcript.

Grade Records

Instructors will not know which of their students are taking a course for P, and will prepare a grade for all students. P grade records will be maintained by the dean of Huxley. If at some time after completing the academic program, a student requires a letter grade for courses indicated on his or her transcript as P, the student may petition the dean of Huxley to send the grade to the source requiring it.

Probation

Huxley students must maintain a quarter and cumulative grade point average of at least 2.0 and must complete at least 50 per cent of credits attempted during any quarter. If these requirements are not met in any quarter, the student may be placed on academic probation during the following quarter. Non-completed credits include courses from which a student withdrew or was deleted, or in which a grade of F (failure), K (incomplete), or X (missing grade) was received. Incompletes in problem series or internships are not counted as incomplete credits in the quarterly determination.

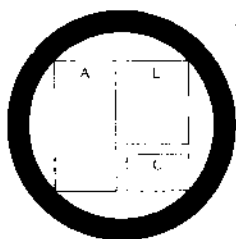
The purpose of academic probation at Huxley is to monitor a student's academic progress. If a student is placed on probation, the student and his or her tutor will be informed by letter. If grade point or percentage of credits completed is not raised during the quarter of probation, the tutor may ask the Admissions Committee to consider withdrawal of the student from Huxley College.

Grievances

Student grievances should be submitted to the Community Affairs Committee. If a student feels his grievance is not fairly considered, he or she should then petition the dean of Huxley College for review.

Courses listed in this general catalog constitute a record of the total academic program of the College. Except for unforeseen scheduling and personnel circumstances, it is expected that each course will be offered during the period of this catalog. For an exact scheduling of courses at Western, students should consult the annual course schedule, the summer catalog and bulletins for the Center for Continuing Education.





ACCOUNTING

College of Business and Economics

Accounting is considered by many as the most important tool of management. A knowledge of accounting is necessary to understand the operation and financial condition of any complex institution—business or government, profit-seeking or non-profit. An understanding of accounting will aid the student in his study of economics and management.

A student majoring in accounting takes the year of introductory accounting required of a business administration major. In this series he studies the fundamental principles of accounting theory and practice as it applies to corporations, partnerships and proprietorships. Subsequently, he will take additional work in intermediate and advanced theory and practice, cost accounting and auditing. The student who wishes to prepare for the Certified Public Accountant (CPA) examination should take additional course work during his junior and senior year; he can take the

examination during the last quarter of his senior year.

The accounting major can expect to find employment in one of three areas: private business, public accounting practice, or governmental work. A person entering the accounting department of a private business will typically enter as a staff accountant and may expect to work into such positions as cost accountant, tax accountant, treasurer, auditor, budget officer, business manager or controller. The certified public accountant offers his services as a professional person to the general public for the purpose of installing accounting systems, providing tax counsel and compliance, and auditing accounting records. For this work the CPA certificate is necessary. The government also offers many opportunities for employment as general accountants, cost analysts and auditors.

The prospective accountant is one who likes to

analyze business problems through the use of financial and other records. Writing skills are essential. The accountant should also have a knowledge of business law, economics, management, finance, mathematics and statistics.

Accountancy offers opportunity for employment for both men and women. Promotions may be either to better accounting positions or to executive positions.

Western Washington State College offers a broad program of courses in accounting. No specific high school courses are required for entrance into the program other than those required generally for admission to Western. It is recommended that students take four years of English and at least three years of mathematics in high school. Students well grounded in these two subjects usually have little difficulty doing satisfactory college-level work.

ACCOUNTING FACULTY

BYRON L. HAGLUND (1956) Chairman.

Associate Professor. BBA, MA, University of Minnesota; CPA, Washington D.C., State of Washington.

RICHARD C. McALLISTER (1961) Assistant Professor. BA, MA, University of Washington; CPA, State of Washington.

WILLIAM M. SAILORS (1974) Assistant Professor. MBA, MS Engr, University of Southern California; BSME, University of Illinois; CPA, States of Washington and California.

RONALD N. SAVEY (1976) Assistant Professor. BA, Western State College (Colo.); MBA, University of Denver; CPA, States of Colorado and Washington.

WILLIAM R. SINGLETON (1976) Assistant Professor. BBA, Memphis State University; MBA, University of Portland; CPA, States of Oregon and Washington.

BACHELOR OF ARTS

Major 94 credits

- Acctg 251, 252, 350, 351, 352, 353, 354, 356, 455, 461; BA 301, 302, 303, 311, 330, 376, 495
- Two of BA 271, 370, 371; Econ 201, 202, 306
- Math 250, 251, 252

Accounting 350 may be waived for accounting majors in exceptional cases by written approval of the department. Economics 311 is recommended as an elective.

Students who wish to make a professional career in public accounting should take additional courses under departmental advisement.

An interdepartmental major in Accounting-Economics is also offered. See "Economics" section of catalog for details.

Minor 25 credits

- Acctg 251, 252, 350, 352, 353
- Additional credits in accounting under departmental advisement

COURSES IN ACCOUNTING

- 251 PRINCIPLES OF ACCOUNTING (4)
Introduction to the theory and practice of accounting, including financial statements.
- 252 PRINCIPLES OF ACCOUNTING (4)
Prerequisite: Acctg 251. Emphasis on partnership and corporation accounting.
- 350 ACCOUNTING ANALYSIS AND CONTROL (5)
Prerequisite: Acctg 252. Theory and use of accounting data in management control and the decision-making process; the flow of funds statement; analysis of accounting statements as a guide to management and investors; survey of cost accounting and budgeting.
- 351 COST ACCOUNTING (5)
Prerequisite: Acctg 350. Historical factory job and process cost systems, distribution cost systems, fixed and flexible budgeting and other controls over business operations available from accounting records.
- 352 INTERMEDIATE ACCOUNTING THEORY AND PRACTICE I (5)
Prerequisite: Acctg 350 or 351. The financial reporting process; income statement; statement of financial position; and statement of retained earnings. Particular attention is focused upon the accountant's measurement of business income, inventory costing techniques, and fixed asset accounting.
- 353 INTERMEDIATE ACCOUNTING THEORY AND PRACTICE II (5)
Prerequisite: Acctg 352. Continuation of Acctg 352. The primary emphasis of this course is the accounting for corporate equity capital. In addition, the accounting for debt capital notes, and short term liabilities will be analyzed.
- 354 INCOME TAXATION I (5)
Prerequisite: Acctg 251. General income tax requirements; special problems relating to individual tax returns.
- 356 FUND AND GOVERNMENTAL ACCOUNTING (3)
Prerequisite: Acctg 252. Fund and budgetary accounting as applied to municipalities, governmental units, and non-profit organizations.
- 400 SPECIAL PROBLEMS IN ACCOUNTING (1-5)
Prerequisite: 20 credits in accounting and prior consultation with instructor.
- 454 INCOME TAXATION II (3)
Prerequisites: Acctg 252, 354. Special problems of partnerships, corporations, and trusts; introduction to tax research.
- 455 ADVANCED ACCOUNTING THEORY AND PRACTICE I (5)
Prerequisite: Acctg 353. Major areas emphasized are: accounting for business firms organized as partnerships, and introduction to accounting for business combinations—mergers, acquisitions, and consolidations.
- 459 ADVANCED ACCOUNTING THEORY (3)
Prerequisite: Acctg 353. Theory of accounting related to income measurement, assets, and equities; uses and limitations of general purpose financial statements.

Accounting

461 AUDITING THEORY AND PRINCIPLES (5)

Prerequisite: Acctg 353. Theory and principles of auditing the accounting records. Generally accepted auditing standards for the independent auditor are studied.

462 AUDITING PRACTICE (3)

Prerequisite: Acctg 461. Application of auditing theory and principles using case simulations. The auditing of computer-based accounting systems and computer-augmented audit aids will be utilized.

463 OPERATIONAL AUDITING (3)

Prerequisite: Acctg 461. The internal auditor's evaluation of the effectiveness of the management information and control systems. This management tool appraises the effectiveness of financial and

administrative systems, divisional budgets, marketing effectiveness, personnel policies and managerial performance.

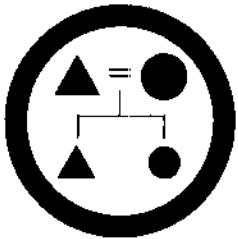
464 ADVANCED TOPICS IN TAXATION (3)

Prerequisites: Acctg 353, 354, 454. This course will deal with more advanced techniques used in tax planning. Emphasis on tax research directed toward the individual, and the closely held family business; either sole proprietorship, partnership, or corporation.

467 CPA EXAMINATION REVIEW (3)

Prerequisites: Acctg 353, 461, BA 370. A review of selected areas of law, auditing, accounting theory, and accounting practices for students preparing to take the CPA examination. Grading will be S/U only.





ANTHROPOLOGY

College of Arts and Sciences

Anthropology is that discipline which studies humankind in the widest perspective, its physical development, development through time, and the diversity of ways of life people have created. Anthropology attempts to make generalizations about human nature, group life, and culture. To achieve these goals, the anthropologist does fieldwork and comparative cross-cultural studies in time and space.

Anthropology shares techniques and methods with other behavioral sciences as well as draws upon physical and biological sciences. Unlike other behavioral sciences, which deal primarily with the western world, anthropology includes the broadest human context. Thus, anthropology provides theoretical and empirical bases for development of hypotheses about human behavior and for testing the limitations of such hypotheses.

Anthropology is divided into subdisciplines.

1. The archaeologist attempts to reconstruct the

past through a study of material remains of extinct peoples.

2. The physical anthropologist both aids in the reconstruction of the past through a study of human fossil remains and in our understanding of the modern human as a biological entity.
3. The anthropological linguist investigates the interrelationships between human culture and language with special focus on unwritten languages, emphasizing the diversity of world languages and the non-verbal human communication.
4. The cultural anthropologist does fieldwork and attempts to describe each culture in its own perspective. On the basis of this experience, the study of hundreds of other field reports, and other information, he or she does cross-cultural comparisons to test generalizations about human behavior.

Utilizing ethnographic, ethnological and ethno-

Anthropology

historical tools as well as information supplied by these subdisciplines, the anthropologist does comparative studies of living and dead cultures and of the processes of human development.

The Anthropology Department offers training in all of these areas. The research and publication strengths of the faculty are in the first, third and fourth areas. Therefore, a student should not normally plan to receive training beyond the intermediate level in physical anthropology.

The department offers the B.A. in Arts and Sciences and the B.A. in Education (as well as minors in both programs).

Opportunities for fieldwork and library research are available in all areas and for advanced research leading to the master's degree in all areas save physical anthropology.

Archaeological surveys and excavations are conducted in most summers. During this biennium the department will be engaged in a preparation of a *Handbook of Washington Indians*, providing a wide diversity of research opportunities. Library holdings include the complete Human Relations Area File for those pursuing cross-cultural and culture-area research. Linguistic specializations available include languages of South Asia, East Asia, and the Northwest Coast. A number of students are currently engaged in independent research in Latin America.

Career opportunities for graduates in anthropology exist in teaching (public school, community college, and college), federal and state agencies, industry, and museums.

ANTHROPOLOGY FACULTY

- JAMES W. BOSCH (1967) Chairman. Associate Professor. BA, San Francisco State College; MA, PhD, Stanford University.
- ANGELO ANASTASIO (1955) Professor. Certificate, Juilliard School of Music; AA, Boston University; MA, PhD, University of Chicago.
- GARLAND F. GRABERT (1967) Associate Professor. BA, MA, PhD, University of Washington.
- HOWARD L. HARRIS (1966) Associate Professor. BA, University of Iowa; MA, University of Missouri; BD, Hartford Theological Seminary.
- LINDA AMY KIMBALL (1976) Assistant Professor. BSEd, MA, PhD, University of Ohio.
- HERBERT C. TAYLOR, JR. (1951) Professor. BA, MA, University of Texas; PhD, University of Chicago.
- COLIN E. TWEDDELL (1965) Lecturer in Anthropology and Linguistics. BA, MA, PhD, University of Washington.

BACHELOR OF ARTS

Major 60 credits

- Anth 201

- Anth 202 or 210 (both may be taken, one as an elective)
- Anth 301
- Anth 248 or Ling 201
- A course in statistics under departmental advisement
- Electives in anthropology under departmental advisement

Minor 25 credits

- Anth 201
- Anth 202 or 210 (both may be taken, one as an elective)
- Electives under departmental advisement

BACHELOR OF ARTS IN EDUCATION

Major Elementary 45 credits

- Anth 201 and either 202 or 210 (both may be taken, one as an elective)
- Anth 301
- Electives under departmental advisement (it is recommended that fifth-year education students take 5-10 hours under departmental advisement)

(Note: no major is offered in secondary education.)

Minor 25 credits

- Anth 201 and either 202 or 210 (both may be taken, one as an elective)
- Electives under departmental advisement

DEPARTMENTAL HONORS

In addition to the general requirements for all honors students, an anthropology major who wishes to graduate "with honors" must demonstrate a reading knowledge of a foreign language and submit a senior thesis.

COURSES IN ANTHROPOLOGY

201 INTRODUCTION TO CULTURAL ANTHROPOLOGY (5)

The study of societies that contrast with Western civilization, leading to an acquaintance with the concept of culture and its importance to an understanding of human behavior. Emphasis will be placed upon understanding each culture from its own point of view rather than our own.

202 INTRODUCTION TO HUMAN ORIGINS (5)

Human origins drawn from the fossil and archaeological records. Problems of human physical diversity and prehistoric cultural diffusion explored.

210 INTRODUCTION TO ARCHEOLOGY (5)

The nature of archeology as seen by classicists, art historians, historians and anthropologists. Methods, techniques and theories used by the different conceptions of the discipline.

- 248 ANTHROPOLOGICAL LINGUISTICS (3)
Prerequisite: Anth 201. Language as a form of communication. Distinctions between spoken and written language. Introduction to phonology, morphology, and syntax. The ways in which different languages employ different spectra of the phonological, morphological, and syntactical universe. (Also listed as Linguistics 201.)
- 300 SPECIAL PROJECTS (1-3)
Prerequisites: 10 credits in anthropology and Conference Course Permit from instructor required before registering. Supervised reading and/or research in selected areas.
- 301 DEVELOPMENT OF ANTHROPOLOGY (5)
Prerequisite: Anth 201. The development of anthropology with emphasis on the period beginning with H. L. Morgan and E. B. Tylor.
- 309 CURATORIAL METHODS IN ANTHROPOLOGY (5)
Prerequisites: Anth 201 and 210 and permission. The study of museum techniques in cataloguing, preparation, storage, and preservation of ethnographic, archaeological, and historical artifacts and other materials. Assistance of the curatorial staff in preparation, assembly, and research concerning displays and public information. Students will work with the staff of the Whatcom Museum of History and Art and will write a report of their activities to include particular aspects of research and preparation in which they were engaged.
- 310 THE RISE OF CIVILIZATIONS (5)
Prerequisites: Anth 201, and 202 or 210. Village agricultural societies as revealed by archeology; crystallization of village farming societies into urban civilizations in the Near East, Egypt, India, China and New World parallel developments.
- 312 FIELD COURSE IN ARCHAEOLOGY (12)
Prerequisites: Anth 201, 210 or equivalent and permission of instructor. On-site training in methods and techniques of archaeological survey and analysis.
- 330 RELIGION AND CULTURE (5)
Prerequisite: Anth 201. Comparative study of religious thought, belief, and behavior; relationship of religious experience and institutions to other aspects of culture and society.
- 341 ECOLOGY AND INTERGROUP RELATIONS (5)
Prerequisite: Anth 201. Adjustment of groups to the natural environment and to each other in selected areas. Mechanisms of interaction including social, political and economic factors.
- 348 INTERMEDIATE ANTHROPOLOGICAL LINGUISTICS (3)
Prerequisite: Anth 248 or Ling 201. Detailed examination of further topics in anthropological linguistics, including language universals, language acquisition, world language and script patterns, and ethnosemantics.
- 351 FAMILY AND KINSHIP ORGANIZATION (5)
Prerequisite: Anth 201. Cross-cultural study of family types, and the definition of social roles through kinship organization.
- 353 SEX ROLES IN CULTURE (4)
Prerequisite: Anth 201. The concepts of status and role as they relate to sexual differentiation in a variety of cultures. Socialization and education, marriage and family, social and economic patterns, attitudes and values, and religion and mythology are among the areas that will be studied in the attempt to understand the nature of sexual differentiation in culture.
- 361 INDIANS OF NORTH AMERICA (5)
Prerequisite: Anth 201. Ethnographic survey of the peoples and cultures.
- 362 PEOPLES OF ASIA (5)
Prerequisite: Anth 201. Ethnographic survey of the peoples and cultures.
- 363 PEOPLES OF AFRICA (5)
Prerequisite: Anth 201. Ethnographic survey of the peoples and cultures of Africa south of the Sahara.
- 364 PEOPLES OF THE PACIFIC (5)
Prerequisite: Anth 201. Ethnographic survey of the peoples and cultures of the Pacific area.
- 365 SEX ROLES: TRADITIONS, STEREOTYPES AND LIBERATION (4)
This course will use the tools of anthropology and literary criticism to determine the extent to which we make unconscious assumptions about sex roles. Stereotypes will be examined in the context of their relation to value systems, and their development will be traced through the history of the women's movement in America. Also listed as English 365. (Offered summer only.)
- 371 FIELDWORK METHODS IN CULTURAL ANTHROPOLOGY (5)
Prerequisites: Anth 301, Math 240. Focuses on the anthropologist as field worker. Detailed analysis of selected monographs to give an understanding of the techniques and methods of ethnographic fieldwork.
- 396a,b,c HONORS TUTORIAL (3-5 ea)
- 400 SPECIAL PROJECTS (1-3)
Prerequisites: 25 credits in anthropology and Conference Course Permit from instructor required before registering. Supervised reading and/or research in selected areas.
- 409 ARCHEOLOGICAL FIELD METHODS (3)
Prerequisites: Anth 201, 202 or 210, and permission of instructor. Site surveys and evaluation; mapping methods and recording of data; field experience in excavation techniques, preservation of artifacts. Offered every other year.
- 410 ARCHEOLOGICAL ANALYSIS AND INTERPRETATION (3)
Prerequisites: Anth 201, 202 or 210. Archeological laboratory methods; artifact identification, classification, measurement; map reproduction, soil and feature profiles, use of photographs and other graphic methods. Offered every other year.
- 411 ARCHAEOLOGY OF NORTHWESTERN NORTH AMERICA (3)
Prerequisites: 10 credits in anthropology including 210 or equivalent. Prehistoric archaeology of the Northwest. Culture changes and adaptations as evidenced in the archaeological data. Northwest coast and interior regions are considered in the prehistoric context of paleo-environment, space and time. The several hypotheses of origins, interrelationships and cultural developments are discussed.
- 412 ARCHAEOLOGY OF THE NEW WORLD (3)
Prerequisites: 10 credits in anthropology including 210 or equivalent. Origins of the New World cultures from the earliest to the historic Native Americans are discussed. The framework for developmental interpretation and the nature of the evidence are examined. Both the nuclear areas of Mexico and Peru are treated, but the hunting cultures of the Archaic and Woodland periods are considered equally as contributive to the totality of New World prehistoric cultural developments.
- 415 PHYSICAL ANTHROPOLOGY (5)
Prerequisite: Anth 202. A detailed examination of basic topics in physical anthropology, including osteology, population development, medical anthropology, and applied techniques.

Anthropology

- 417 SEMINARS IN SELECTED TOPICS (3)
Prerequisite: permission of instructor. To be offered in alternate years.
417a Political Anthropology
417b Symbolic Anthropology
417c Comparative Religion
417d Medieval Explorers as Ethnologists
417e Pre-Columbian Contacts with the World
417f Siberian Ethnography
417g Culture, Music and Art
417h Anthropological Linguistic Theory
417j Archaeological Theory
417k Current Issues in Anthropology
417m Use of Models in Anthropology
- 425 CULTURE AND PERSONALITY (3)
Prerequisites: Anth 201 and five additional credits in anthropology. The ways in which the study of the individual and his culture has been approached in anthropology. Offered every other year.
- 431 SOCIAL CHANGE IN AMERICA (3)
Prerequisite: 10 credits in anthropology. Social change in the United States since 1900; contemporary theories of social change; problems in predicting change.
- 448 LANGUAGE IN CULTURE AND SOCIETY (3)
Prerequisite: Anth 201. Analysis of situational varieties of language level and vocabulary; social processes of language change; semantics and world-view; speech communities.
- 451 LATIN AMERICAN ETHNOLOGY (3)
Prerequisite: Anth 201. Survey of the Indians of Latin America, covering the prehistoric period with particular reference to the Aztec, Maya and Inca and continuing with an examination of the effects of the Spanish conquest and subsequent amalgamation of cultures.
- 461 NORTH AMERICAN INDIAN ACCULTURATION (3)
Prerequisite: Anth 361. The study of changes resulting from culture contact in North America. Historical processes and contemporary conditions.
- 462 INDIANS OF THE NORTHWEST COAST (3)
Prerequisite: Anth 201. Tribal distributions, social organization, and ecological adjustment with emphasis on the Indians of Western Washington; problems of adjustment to the modern world.
- 463 PEOPLES AND INSTITUTIONS OF SOUTH ASIA (3)
Prerequisite: Anth 201. A survey of cultures on the Indian sub-continent, Mainland and Insular Southeast Asia. Emphasis is on special topics, including ecology, prehistory, and selected cultural groups. Readings focus on original monographs.
- 464 PEOPLES AND INSTITUTIONS OF EAST ASIA (3)
Prerequisite: Anth 201. Ethnographic in-depth study of the national and minority peoples of China (including Taiwan), Korea, and Japan with emphasis on their distinctive cultures and societal structure.
- 470 RESEARCH (3-5)
Prerequisite: permission of instructor. Investigation of a problem through field or library research.
- 481 CHILDHOOD AND CULTURE (3)
Prerequisite: 10 credits in anthropology. The process of socialization or enculturation viewed from a cross-cultural perspective.
- 483 SOCIAL CHANGE AND THE MORAL ORDER IN RECENT LITERATURE (4)
Also offered as Eng 483 and Phil 483.
- 484-489 READING AND CONFERENCE (3-5)
Prerequisite: Conference Course Permit from instructor required before registering. The specific study topic will be determined by the instructor, in consultation with each student.
484 Cultural Anthropology
485 Physical Anthropology
488 Linguistics
489 Archaeology
- 495 TEACHING-LEARNING PROCESSES IN INTRODUCTORY ANTHROPOLOGY (3)
Prerequisites: 25 credits in anthropology and permission of instructor. Practicum as discussion leaders in Anth 201 or 210.
- 496a,b,c HONORS TUTORIAL (3-5 ea)
- 500 SPECIAL PROJECTS (1-3, maximum of six credits)
Prerequisite: graduate status and permission of instructor. Special problems in anthropological research.
- 503 HISTORY OF ANTHROPOLOGY (5)
Prerequisites: graduate status and permission of department. Development of principal theoretical orientations and methods in the cultural and historical setting; development of anthropology as a discipline.
- 504 METHODS AND THEORY IN ANTHROPOLOGY (5)
Prerequisites: graduate status and permission of department. Analysis of major theoretical approaches; research methods and procedures; relationship of theory and method in formulating research problems. Analysis of selected monographs and field techniques.
- 520 ADVANCED PHYSICAL ANTHROPOLOGY (3)
Prerequisite: Anth 415 or permission of instructor. Intensive research and study on current concerns of physical anthropology. Emphasis is on critical reading and analysis of relevant literature as well as on orientation toward research topics.



522 SEMINAR: OLD WORLD PREHISTORY (3)

Prerequisites: Anth 503, 504 and permission of instructor. Seminar in selected topics of Old World Prehistory, to cover topics from the Paleolithic to early historic civilizations. Assessments of methods, techniques and underlying theory behind the major Old World Archaeological Zones. Assumptions basic to the interpretations: economic-deterministic, cultural evolutionary and cultural ecological. Students to select their problem areas, study them and discuss in seminar sections.

523 SEMINAR: NEW WORLD PREHISTORY (3)

Prerequisites: Anth 503, 504 and permission of instructor. This seminar to be structured similarly to 522. New World Prehistory; its problems and theoretical foundations. Problems of origins, distributions in time-space of populations, the effects of changing environments, origins of agriculture, metallurgy. Problems of Old World diffusion, evidence for and against. Cultural-environmental relationships.

530 SEMINAR: VALUES (3)

How scholars characterize cultures as wholes by reference to value configurations, themes, world views or philosophies; difficulties in characterization of value systems in unself-conscious societies.

532 COMPARATIVE SOCIAL ORGANIZATION (3)

Prerequisites: minimum of 15 credits of anthropology undergraduate courses and permission of instructor. The study of the various ways in which people group themselves; the structure of roles, the recruitment and assignment of roles and status within groups, leadership and the legitimization of authority, and the relationships among groups. The sanctions governing relationships: gossip, ridicule, isolation and formal "legalistic."

540 LANGUAGE, LEXICON AND CULTURE MAPPING (3)

Prerequisites: Linguistics Linguistics 201 or Anth 248, Anth 348 or equivalent. Language and ethnography; the differential relationships existing between the lexicon and the grammar of languages and their speakers' respective cultures, societies and world view.

690 THESIS RESEARCH (3)

Prerequisite: formal advancement to candidacy for the M.A. in anthropology. S/U grading only.

691 THESIS (3)

Prerequisite: formal advancement to candidacy for the M.A. in anthropology. S/U grading only.



ART

College of Fine and Performing Arts

One of the earliest human activities was the production of works of art. Through the centuries one measure of human civility has been involvement in the arts. Presently, concern for the arts is very high. The Art Department at Western is meeting that concern with a highly qualified faculty teaching in the major areas of art. The faculty not only teaches but is intimately involved in art production and scholarship.

The Art Department offers a number of degree programs in studio art, art history and art education. Through a contract system students may, in conjunction with faculty of the Art Department, develop majors to meet their particular backgrounds, needs and interests. Most of the traditional areas of art are offered at Western. Through arrangement with instructors, innovative programs may be planned. Programs may also be developed involving art and other disciplines. While there are certain required courses in each of the majors, the Art Department has

attempted to give the greatest possible degree of flexibility in its programs congruent with student involvement and concerted faculty advisement. Students should, early in their program at Western, seek advisement from faculty members in the department.

Transfer students are required to complete in residence a minimum of 15 credits in art for the teacher education major, 11 credits in art for the Arts and Sciences major, or 5 credits in art for a minor.

ART FACULTY

- THOMAS SCHLOTTERBACK (1965) Chairman.
Professor. BFA, MFA, University of Kansas; PhD, The State University of Iowa.
- DORIS CHATHAM (1975) Assistant Professor. BA, Rice; MFA, University of Washington; MA, Asian Studies, University of California, Berkeley; PhD, Art History, University of California, Berkeley.
- IONE A. FOSS (1957) Associate Professor. BS, MAA, Montana State College; MFA, University of Oregon.

- *LAWRENCE HANSON (1963) Associate Professor. BA, MFA, University of Minnesota.
- ROBERT A. JENSEN (1966) Associate Professor. BBA, University of Washington; MFA, Washington State University.
- THOMAS A. JOHNSTON (1967) Associate Professor. AA, San Diego City College; AB, San Diego State College; MFA, University of California, Santa Barbara.
- DAVID F. MARSH (1957) Professor. BA, Central Washington State College; MS, University of Washington.
- PATRICK F. McCORMICK (1969) Associate Professor. BFA, BA, University of Washington; MFA, Cranbrook Academy of Art.
- **MARY A. McINTYRE (1968) Associate Professor. AB, MFA, Indiana University.
- DAVID E. TEMPLETON (1969) Professor. BFA, MA, University of Illinois; PhD, University of Minnesota.
- EDWARD B. THOMAS (1967) Associate Professor. BA, MFA, University of Washington.
- ROBERT A. URSO (1969) Associate Professor. AB, MA, University of Notre Dame, Ind.
- GENE E. VIKE (1962) Associate Professor. BA in Ed, BA, Western Washington State College; MS, Pratt Institute.
- WALTER F. WEGNER (1961) Associate Professor. BS, University of Wisconsin; MFA, University of Iowa.
- HOMER A. WEINER (1964) Professor. BFA, Bradley University; MFA, University of Iowa.

STAFF OF THE WHATCOM MUSEUM OF HISTORY AND ART

- Susan Barrow, Museum Director, BA, University of Washington.
- Emil Mierson, Administrative Coordinator, MBA, Northwestern.
- George Thomas, Museum Curator, MFA, University of California, Santa Barbara.
- Janice Olson, Registrar, BA, Art History, Western Washington State College.

BACHELOR OF ARTS

Studio Major 73-85 credits

- Art 101 or equivalent
- Art 301, 401
- Art History 220, 230, 240
- Art Symposium

The student will elect from courses at the 200 level a basis for all subsequent work. The student will be guided by noting the prerequisites for courses at the 300 level, and by faculty advisement.

Satisfactory completion of the studio major will be determined by contractual agreement between the student and a faculty committee. Individual advisement concerning this contract may begin whenever the student requests it. The contract must be written before the student has completed 24 credits in art. Concentrations may be developed in printmaking, painting, sculpture, ceramics,

jewelry, textiles, graphic design, or in a combination of these areas as determined by the student's contractual agreement. Courses outside the art department where appropriate may be applied. Revisions and amendments will be considered and may be made by the student and the faculty committee upon request.

Transfer students with more than 18 credits of previous work should seek advisement during their first quarter at WWSC.

Studio Minor 25 credits

- Art 101 or equivalent
- Art History 240
- Electives under advisement

Art History Major

60 credits plus Supporting Courses

- Art History 220, 230, 240, 340, 440, 490
- Three areas from:
 - (a) Art History 310, 410
 - (b) Art History 320, 420
 - (c) Art History 430, 431
 - (d) Art History 360, 460
 - (e) Art History 370, 470
- 12 elective credits in art history
- 12 credits in studio courses
- Supporting courses; 10 credits in appropriate courses outside the area of art history selected under departmental advisement
- Reading knowledge of French or German
- Art Symposium

Art History Minor 24 credits

- Art History 220, 230, 240
- Two courses selected under advisement from each of two areas: Primitive, Ancient, Renaissance, Modern, or American; one course from any single area may be a directed studies in that area

BACHELOR OF ARTS IN EDUCATION

Major Elementary and Secondary 45 credits

- Required of all majors:
 - (a) Art 101 or equivalent
 - (b) Art History—two courses from 220, 230, 240
 - (c) Art 280, 381, 382
- One course from each of the following: drawing, painting, sculpture, printmaking, ceramics, jewelry, textiles
- At least 6 credits in one upper division studio area
- Courses outside the department may be required as part of the major

*On Sabbatical Leave Winter & Spring 1978.
 **On Sabbatical Leave 1977-78.

Art

Satisfactory completion of the major will be determined by contractual agreement between the student and a faculty committee. Upon completion of not less than 12 credits of art and not more than 18 credits, a student must write a contract with the faculty committee for completion of the major. Transfer students with more than 18 credits should do this prior to completion of their second quarter at the College. Revisions and amendments may be made by the student and the faculty committee upon request.

Minor 25 credits

- Art 101 or equivalent
- Art 280, 381
- Art History 240
- Electives under advisement

Major Concentration 70 credits

- Required of all majors:
 - (a) Art 101 or equivalent, 301, 401
 - (b) Art History 220, 230, 240 and one additional course
 - (c) Art 280, 381, 382
- One course from each of the following: drawing, painting, sculpture, printmaking, ceramics, jewelry, textiles
- At least 15 credits in one upper division studio area
- Courses outside the department may be required as part of the major

Satisfactory completion of the major will be determined by contractual agreement between the student and a faculty committee. Upon completion of not less than 12 credits of art and not more than 18 credits, a student must write a contract with the faculty committee for completion of the major. Transfer students with more than 18 credits should do this prior to completion of their second quarter at the College. Revisions and amendments may be made by each student and the faculty committee upon request.

BACHELOR OF FINE ARTS

Studio Major 154 credits

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 more than 180 undergraduate quarter credit hours. Students are advised that a Bachelor of Arts studio major of normal length is available. The Bachelor of Fine Arts degree requires each student to complete the following basic program:

- An 85-hour concentration in one specific studio area. The areas are: drawing, painting,

printmaking, sculpture, graphic design, ceramics, fabric design and jewelry

- A 30-hour secondary concentration in a studio area other than that covered in the 85-hour concentration
- A 24-hour art history minor
- A minimum of 15 free elective hours outside of the Art Department in addition to general college requirements
- Attendance at Art Symposia and a minimum of one presentation
- Passage to BFA candidacy after completion of 50 hours of art credit
- Passage to BFA status upon completion of contract before granting of the degree

Each student BFA program is arranged through the Art Department's contract system. That contract must be established between the student and the major area and minor area advisers at the completion of 24 credits in art. After the completion of 50 credit hours, each student must have made arrangements through the major professor to submit work to the area faculty in consideration for admission to BFA candidacy. Each student's works are considered by each committee separately and judged in relationship to established traditional esthetic criteria in a manner designated by the department as a *concours* system. At the completion of all hour requirements each student must submit work *en concours* for BFA degree consideration. This last *concour* will be a public presentation in an appropriate milieu. Transfer students with more than 18 credits of previous art work should seek advisement before entering the BFA program. All incoming students contemplating the BFA degree are urged to seek departmental advisement during the first quarter at Western.

DEPARTMENTAL HONORS

In addition to the general requirements for all honors students, an art major who wishes to graduate "with honors" must complete Art 401, Music 342.

MUSEUM TRAINING

The Art Department and the Whatcom Museum of History and Art provide a museum training program for qualified students from Western Washington State College. Students wishing such training will enroll in Art History 301—Museology I, or Art History 401—Advanced Museology. The students will receive their training with the staff of the Whatcom Museum of History and Art.

GRADUATE STUDY

For a concentration leading to the Master of Education degree, see the *Graduate Bulletin*.

ART SYMPOSIUM

Each art major is required to attend the Art Symposium. Art Symposium meets throughout the school year. Each meeting is a presentation by a visiting artist, critic, historian, or by a faculty member from Western. Each presentation will be concerned with the professional elements of art. Advanced art students may be asked to make at least one presentation to the symposium.

COURSES IN ART

(See also Art History section, which follows.)

NOTE: The Art Department may request samples of work produced in a studio course for exhibition purposes.

- 101 DRAWING (3)
Not open to students with two years of high school art. Fundamental principles and techniques.
- 110 INTERDISCIPLINARY ART (5)
For students planning interdisciplinary art majors and those wishing to broaden both their artistic knowledge and awareness. The course is team-taught; art, music, drama, dance and creative writing. Emphasis will be given to the inter-connecting aesthetic principles of all art forms. (Also listed as Th/D 110, Music 110.)
- 190 ART APPRECIATION (2)
Introduction to form and expression in the visual arts for the non-major.
- 202 LIFE DRAWING I (3)
Prerequisite: Art 101 or equivalent.
- 210 PRINTMAKING I (3)
Prerequisite: Art 101 or equivalent. Introduction to intaglio processes.
- 211 PRINTMAKING II (3)
Prerequisite: Art 101 or equivalent. Introduction to lithographic processes.
- 220 PAINTING (3)
Prerequisite: Art 101 or equivalent. Introduction to contemporary painting.
- 230 SCULPTURE I (3)
Prerequisite: Art 101 or equivalent. Introduction to sculpture.
- 237 FOREIGN STUDY (3-5)
(See Art 437.)
- 240 CERAMICS (3)
Prerequisite: Art 101 or equivalent. Handbuilt clay construction. Introduction to glaze formulation, kiln loading and firing.
- 270 DESIGN AND COLOR (3)
Studies of form and structure in a variety of media; emphasis on two-dimensional design concepts, pattern and color.
- 271 THREE-DIMENSIONAL DESIGN (3)
Exploration of construction in space employing a variety of media.
- 280 INTRODUCTION TO ART EDUCATION (2)
Prerequisite: 9 credits in art. Examination of the profession of art education, teaching skills, teaching as influencing student behavior in art, curriculum content and materials.
- 300 SPECIAL PROBLEMS IN ART (1-5)
Prerequisite: permission of instructor.
- 301 CONTEMPORARY PRACTICE (3)
Prerequisites: Art History 240 and 9 credits in studio. A survey of recent ideas in the visual arts. The course will incorporate a history of art since 1945 but will not be limited to historical analysis. Study of major artists and critics of this period.
- 302 LIFE DRAWING II (3)
Prerequisites: Art 202 or equivalent; repeatable to 15 credits. Drawing as a major medium.
- 311 PRINTMAKING -- LITHOGRAPHY (3)
Prerequisites: Art 211, 301, or concurrent enrollment. Planographic processes; emphasis on lithography.
- 312 PRINTMAKING -- INTAGLIO (3)
Prerequisites: Art 210, 301, or concurrent enrollment. Intaglio processes: etching, engraving, drypoint, aquatint.
- 313 PRINTMAKING WORKSHOP (3 or 5)
Prerequisite: Art 311 or 312; repeatable to 15 credits.
- 321 PAINTING WORKSHOP I (3 or 5)
Prerequisites: Art 220, 301, or Art History 240 or concurrent enrollment; repeatable to 15 credits. Individual search for form and expression within a workshop environment.
- 325 WATER COLOR PAINTING (3 or 5)
Prerequisites: Art 220, 301, or Art History 240 or concurrent enrollment; repeatable to 15 credits. Various water soluble media.
- 328 LIFE PAINTING (3 or 5)
Prerequisites: Art 202, 301, or Art History 240 or concurrent enrollment; repeatable to 15 credits. The continued development of a personal direction in painting, making use of the nude or draped model.
- 331 SCULPTURE WORKSHOP (3 or 5)
Prerequisite: Art 230; repeatable to 15 credits. Problems in three-dimensional form and expression employing a variety of media and materials.
- 337 FOREIGN STUDY (3-5)
(See Art 437.)
- 341 CERAMICS (3 or 5)
Prerequisite: Art 240; repeatable to 15 credits. Introduction to the potter's wheel as a tool. Handbuilding. Glaze formulation and kiln firing.
- 342 CERAMIC WORKSHOP I (3 or 5)
Prerequisite: Art 341; repeatable to 15 credits. Clay as a medium. Pottery and/or ceramic sculpture.
- 350 JEWELRY I (3)
Prerequisites: Art 101 or equivalent, Art 271 or Tech 210 or 214. Design and construction of jewelry in various metals, with emphasis on silver; the setting of stones. Repeatable to 15 credits.
- 351 JEWELRY II (3 or 5)
Prerequisites: Art 350, Art History 240; repeatable to 15 credits. Problems in simple and centrifugal casting.
- 360 FABRIC DESIGN I (3)
Prerequisites: Art 101 or equivalent, Art 270, one art history course. Design problems using linoleum block print, tie-dye and stitchery.
- 361 FABRIC DESIGN II (3 or 5)
Prerequisite: Art 360; repeatable to 15 credits. Silkscreen processes, batik, natural dyeing.

Art

- 367 **WOVEN AND CONSTRUCTED FABRICS** (3 or 5)
Prerequisite: Art 360. Pattern weaving, construction and use of a primitive loom; non-loom construction. Repeatable to 15 credits.
- 370 **LETTERING** (3)
Prerequisite: Art 101 or equivalent. Anatomy of letter forms, alphabets and calligraphy; problems in pen and brush lettering.
- 371 **GRAPHIC DESIGN I** (2)
Prerequisites: Art 101 or equivalent, 370. Introduction to visual communication as related to graphic processes.
- 372 **GRAPHIC DESIGN II** (3 or 5)
Prerequisite: Art 371; repeatable to 15 credits. Advanced problems in design as communication.
- 375 **ILLUSTRATION** (3)
Prerequisites: Art 101, 202, 270, or equivalent. Basic methods of illustration in black and white, and color. Developing the concept, organizing the image, and execution of the image.
- 380 **ART IN ELEMENTARY EDUCATION** (4)
Prerequisite: Humanities or Art 190; for non-majors. Child development in art for the elementary school; problems in design, drawing, painting and printmaking as they relate to the school.
- 381 **THEORIES OF ART EDUCATION** (3)
Prerequisite: Art 280. The philosophy, psychology and procedures for art in the elementary and secondary schools.
- 382 **ART EDUCATION STUDIO** (3)
Prerequisite: Art 381 or concurrent registration. Problems in art and their adaptation to the elementary and secondary school.
- 390 **UNDERSTANDING ART** (5)
Prerequisite: sophomore standing. Understanding and appreciation of the visual arts with particular emphasis on the art of Mexico. This course is designed for study in Mexico based in Guadalajara.
- 397a **COLONIAL CRAFTS: SPINNING AND WEAVING IN THE SCHOOLS** (2)
Prerequisites: open to non-majors; junior status or art major or BA or teaching experience. The construction of simple looms and spindles and the preparation of wool for weaving process is the main theme. An opportunity is also given for weaving practice and spinning techniques, as well as the use of yarn and other fibers for creating art forms. Materials and methods are appropriate for use in elementary and high schools. (Offered summer 1977.)
- 397e **THE ENHANCEMENT OF COLOR** (3)
Explorations and identification of the issues which make for the enhancement of color in composition.
- 397f **GLASSFORMING** (6)
Deals with the techniques of glassforming. Included will be slumping, fusing, casting, decoration, enhancing, lustering, etc. (Offered summer 1977.)
- 397g **WATERCOLOR PAINTING** (6)
Prerequisite: permission of instructor. Watercolor for both beginners and advanced. Work in transparent and opaque medium. Concentrate mostly on landscape. (Offered summer 1977.)
- 400 **SPECIAL PROBLEMS** (2-5)
Prerequisites: senior status and permission of instructor. Individual instruction in special projects under supervision.
- 401 **SEMINAR IN ART** (2)
Prerequisites: senior status or 9 credits in art history; 18 credits in studio courses; repeatable to total of 6 credits. Development of criteria for mature artistic judgment.
- 402 **LIFE DRAWING III** (3 or 5)
Prerequisites: Art 101 or equivalent; 9 credits of Art 302; repeatable to 15 credits. Continuation of individually established concerns in the area of drawing.
- 404 **BFA DRAWING WORKSHOP** (2-5)
Prerequisite: admittance to BFA program. Repeatable to 20 credits. For students in the BFA program to pursue their individual directions in drawing.
- 410 **DRAWING WORKSHOP** (5)
Prerequisites: Art 101 or equivalent, Art 202 and 302 or an aggregate of nine hours minimum, Art History 240 and consent of instructor. Class is for pursuit of individual creativity in the drawing medium under supervision.
- 411 **ADVANCED PRINTMAKING WORKSHOP** (3 or 5)
Prerequisite: Art 313; repeatable to 15 credits. Continuation of problems related to a refined use of the traditional printmaking processes as well as more recent technological innovations as they might be applied to editioned art.
- 414 **BFA PRINTMAKING WORKSHOP** (2-5)
Prerequisite: admittance to BFA program. Repeatable to 20 credits. For students in the BFA program to pursue their individual directions in printmaking.
- 421 **PAINTING WORKSHOP II** (3 or 5)
Prerequisites: Art 101 or equivalent; 9 credits of Art 321, Art 301, and Art History 240; repeatable to 15 credits. Continuation of individually motivated search and research into form and expression with an emphasis on current issues within the field of painting as related to the making of art.
- 422 **ADVANCED WORKSHOP AND SEMINAR** (2-5)
Prerequisites: 30 credits in painting or 30 credits in drawing or combination, totaling 40 credits; Art 301 and nine credits in art history including Art History 240. Repeatable to 15 credits.
- 425 **ADVANCED WATER COLOR PAINTING** (3 or 5)
Prerequisite: Art 325; repeatable to total of 15 credits. Painting workshop using aqueous media.
- 431 **SCULPTURE WORKSHOP** (3 or 5)
Prerequisite: Art 331; repeatable to 15 credits. Advanced problems in three-dimensional form and expression employing a variety of media and materials.
- 432 **DIRECT METAL SCULPTURE** (3 or 5)
Prerequisite: Art 331; repeatable to total of 15 credits. Direct metal sculpture; emphasis on the welding processes.
- 433 **BRONZE CASTING** (3 or 5)
Prerequisite: Art 230; repeatable to total of 15 credits. Bronze casting by the lost wax process; modeling in clay, wax and plaster; mold-making and other techniques for making cast metal sculpture.
- 434 **BFA SCULPTURE WORKSHOP** (2-5)
Prerequisite: admittance to BFA program. Repeatable to 20 credits. For students in the BFA program to pursue their individual directions in sculpture.

- 437 FOREIGN STUDY (3-5)
Prerequisites: for Art 237, 101 or equivalent and one art history class; for Art 337, 9 credits in lower-division art classes and one art history class; for Art 437, 20 credits in upper-division art. These courses are offered only through the WWSC Study Abroad program. Contact Foreign Study Office, Miller Hall 353, for information.
- 441 CERAMIC WORKSHOP II (3 or 5)
Prerequisite: Art 341; repeatable to 15 credits. Advanced ceramics. Self-directed problems; weekly seminars.
- 444 BFA CERAMICS WORKSHOP (2-5)
Prerequisite: admittance to BFA program. Repeatable to 20 credits. For students in the BFA program to pursue their individual directions in ceramics.
- 450 JEWELRY III (3 or 5)
Prerequisite: Art 350; repeatable to 15 credits. Advanced problems in fabrication.
- 451 JEWELRY IV (3 or 5)
Prerequisite: Art 351; repeatable to 15 credits. Advanced problems in casting.
- 452 ADVANCED JEWELRY WORKSHOP (3 or 5)
Prerequisite: Art 451; repeatable to 15 credits. Advanced problems in jewelry as an art form.
- 454 BFA JEWELRY DESIGN WORKSHOP (2-5)
Prerequisite: admittance to BFA program. Repeatable to 20 credits. For students in the BFA program to pursue their individual directions in jewelry design.
- 461 FABRIC DESIGN III (3 or 5)
Prerequisite: Art 361; repeatable to 15 credits. Advanced study in printed and dyed textile techniques.
- 464 BFA FABRIC DESIGN WORKSHOP (2-5)
Prerequisite: admittance to BFA program. Repeatable to 20 credits. For students in the BFA program to pursue their individual directions in fabric design.
- 467 WOVEN AND CONSTRUCTED FABRICS III (3 or 5)
Prerequisite: Art 367; repeatable to 15 credits. Advanced workshop in tapestry, rugmaking and other media.
- 471 GRAPHIC DESIGN III (3 or 5)
Prerequisite: Art 372; repeatable to total of 15 credits. Advanced graphic design.
- 474 BFA GRAPHICS WORKSHOP (2-5)
Prerequisite: admittance to BFA program. Repeatable to 20 credits. For students in the BFA program to pursue their individual directions in graphics.
- 481 ADVANCED ART EDUCATION (3)
Prerequisites: previous work in art education; teaching experience. Lectures and studio work in art education as related to materials and evaluation of process, product and individual growth.
- 482 ART EDUCATION WORKSHOP (2-5)
Prerequisite: teaching experience. Explorations in art media and their adaptation to use in the school; may be repeated with different topics.
- 497a CARTOONING WORKSHOP (6)
Areas to be covered: comic strips, gag cartoons, advertising cartoons. (Offered summer 1977.)
- 500 SPECIAL PROBLEMS (2-5)
Prerequisite: graduate status or completion of an art major or equivalent. Individual research under supervision.
- 511 GRADUATE DRAWING AND PRINTMAKING (2-4)
Prerequisite: graduate status or completion of an art major or equivalent. Individual problems.
- 521 GRADUATE PAINTING (2-4)
Prerequisite: graduate status or completion of an art major or equivalent. Individual problems in painting.
- 531 GRADUATE SCULPTURE (2-4)
Prerequisite: graduate status or completion of an art major or equivalent. Individual problems.
- 541 GRADUATE CERAMICS (2-4)
Prerequisite: graduate status or completion of an art major or equivalent. Individual problems in ceramics.
- 551 GRADUATE JEWELRY (2-4)
Prerequisite: graduate status or completion of an art major or equivalent. Individual problems in jewelry.
- 561 GRADUATE FABRIC DESIGN (2-4)
Prerequisite: graduate status or completion of an art major or equivalent. Individual problems in fabric design.
- 580 SPECIAL PROBLEMS IN ART EDUCATION (2-4)
Prerequisites: teaching experience and 27 credits in art. Special problems in art education as announced.
- 582 CURRICULUM PLANNING (4)
Prerequisites: teaching experience and 27 credits in art. Planning, development, implementation and evaluation of art as related to the total curriculum.

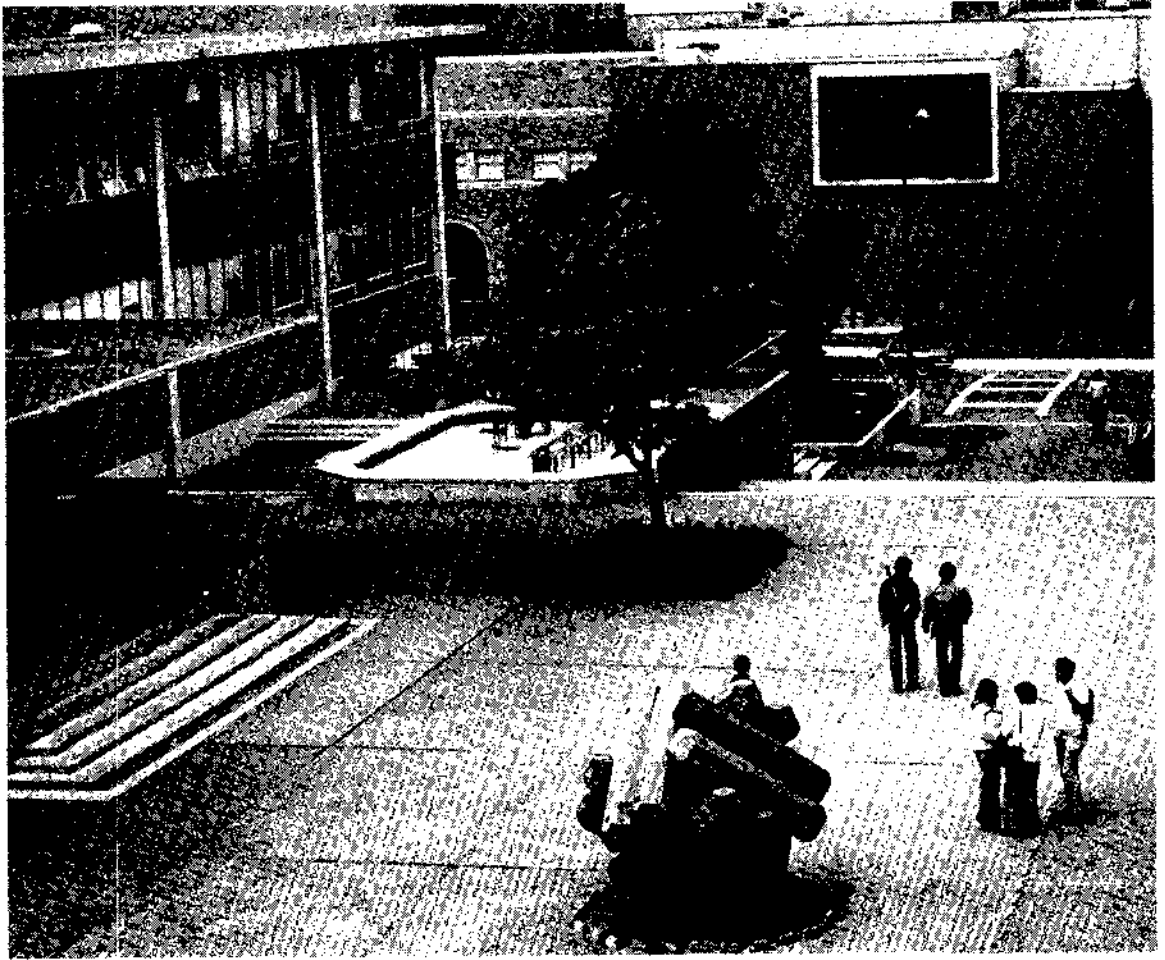
COURSES IN ART HISTORY

- 220 SURVEY OF ART HISTORY I (3)
Ancient and medieval art.
- 230 SURVEY OF ART HISTORY II (3)
Renaissance art, 13th-18th centuries.
- 240 SURVEY OF ART HISTORY III (3)
Modern art in 19th, 20th centuries.
- 300 SPECIAL PROBLEMS (2-5)
Individual problems in art historical methodology through special projects under supervision.
- 301 MUSEOLOGY I (2-5)
Prerequisites: background in art history, art, history, or anthropology; permission of instructor. May be repeated to 15 hours credit. Training in the methods and processes of museum work. Students work with and under the guidance of the staff of the Whatcom Museum of History and Art. Part of the training is an apprenticeship program of work directly in the museum.
- 310 PREHISTORIC AND PRIMITIVE ART I (3)
Prerequisites: Art History 220 or 230 or 240; Anth 215 or 361 prerequisite or concurrent. Art of the Paleolithic and Neolithic cultures and Western hemisphere primitive cultures.
- 320 ANCIENT ART I (3)
Prerequisites: Art History 220 and 230. Art of Ancient Egypt, Mesopotamia, Crete, Mycenae and peripheral areas.
- 330 MEDIEVAL ART (3)
Prerequisite: Art History 420 or 220 or 230 and permission of instructor. Western art from the fall of the Roman Empire to the beginning of the Renaissance.

Art

- 337 FOREIGN STUDY (3-5)
(See Art History 437.)
- 340 MODERN ART HISTORY I (3)
Prerequisite: Art History 240. The art of the 19th century Western world.
- 360 AMERICAN ART TO 1913 (3)
Prerequisite: Art History 220, or 230, or 240, or 340. Art in the United States from the Colonial period to the Spanish American War.
- 370 ORIENTAL ART I (3)
The art of India and Southeast Asia from the Indus Valley civilization (c. 2500 B.C.) to the end of the 18th century.
- 400 SPECIAL PROBLEMS (2-5)
Prerequisites: senior status and permission of instructor. Individual instruction in special projects under supervision.
- 401 ADVANCED MUSEOLOGY (2-5)
Prerequisites: Art History 301 and permission of instructor. May be repeated to 15 credit hours. The course concentrates on preparing the student for a career in museum curatorship.
- 410 PREHISTORIC AND PRIMITIVE ART II (3)
Prerequisites: Art History 220 or 230 or 240; permission of instructor; Anth 215 or 363 or 364 or Art History 310 prerequisite or concurrent. Tribal arts of Africa and the South Pacific.
- 420 ANCIENT ART II (3)
Prerequisites: Art History 320 or 220 and permission of instructor. Art of the Ancient Greek and Roman civilizations.
- 430 RENAISSANCE ART I (3)
Prerequisites: Art History 220 and 230. Art of the Renaissance in Southern Europe.
- 431 RENAISSANCE ART II (3)
Prerequisites: Art History 430 or 220 or 230 and permission of instructor. Art of the Renaissance in Northern Europe.
- 432 BAROQUE ART (3)
Prerequisites: Art History 230 or 430 or 431 and permission of instructor. Art of the West during the 16th, 17th and 18th centuries.
- 437 FOREIGN STUDY (3-5)
Prerequisites: for Art History 337, Art 101 or equivalent and one art history class; for Art History 437, 12 credits in art history or senior-level status. These courses are offered only through the WWSC Study Abroad program. Contact Foreign Study Office, Miller Hall 353, for information.
- 440 MODERN ART II (3)
Prerequisites: Art History 240 and 340. Art of the 20th century Western world.
- 460 AMERICAN ART, 1900 TO THE PRESENT (3)
Prerequisites: Art History 220, 230, 240.
- 470 ORIENTAL ART II (3)
The art of China and Korea from the Shang Dynasty (1523 B.C.) to the end of the 18th century.
- 471 ORIENTAL ART III (3)
The art of Japan from the prehistoric Archeological Age to the end of the 18th century.
- 490 SEMINAR IN ART HISTORY (3)
Prerequisites: 12 credits in art history including Art History 300, or senior standing, or permission of instructor. Each seminar deals with a separate and special art historical problem or project. Each student prepares research, with oral and written presentation of materials pertinent to the class.
- 500 SPECIAL PROBLEMS (2-5)
Prerequisite: graduate status or completion of an art major or equivalent. Individual research under supervision.
- 590 DIRECTED STUDIES IN ART HISTORY (1-4)
Prerequisites: art major or minor status, senior or graduate level; 12 credits in art history with at least one field concentration.
Independent art historical research:
a. Prehistoric and Primitive Art History
b. American Art History
c. Modern Art History
d. Art Theory Aesthetics and Art Criticism
Cumulative credit in any one area may not exceed 12 credits.





BIOLOGY

College of Arts and Sciences

Biology—the study of life—includes a broad spectrum of the natural sciences. Microbiology, ecology, parasitology, systematic or taxonomic biology, genetics, marine biology, biometry, molecular biology, limnology, science education, plant and animal anatomy and plant and animal physiology are some of the specialties to be found in Western's department. Students in biology may prepare for professional careers in biology or in the health sciences such as medicine. They may prepare for careers in teaching in the public schools and community colleges. Others go on to complete a graduate program leading to a Ph.D. and teach at the college and university level. Some select a liberal arts program in biology because they find it fascinating even though they do not plan to follow a career in the subject. A growing number find biology a valuable second major, thus enhancing employment opportunities. The department offers courses and major and minor programs encompassing all of these possibilities.

MAJOR CONCENTRATIONS IN BIOLOGY

Professional career opportunities in biology are diverse, and many of them require education beyond the baccalaureate degree. Graduates of biology programs may continue their education in such fields as biology, botany, zoology, microbiology, ecology, etc. Others continue in related fields such as medicine and dentistry, oceanography, environmental law, fisheries, veterinary medicine, sanitary engineering, and various specialties in medical or dental technology. Students interested in professional careers are advised to enter one of the major concentrations leading to the Bachelor of Science degree. The B.S. (biology) includes supporting courses in the physical sciences and mathematics and a strong core of basic biology. It is intended for those who wish to continue post-baccalaureate studies in the biological sciences or to teach in the larger

Biology

secondary schools and in community colleges. Students who wish to apply for admission to medical or dental schools may take this degree, or may find the Bachelor of Arts (premedical emphasis—see below) better suited to their needs. The programs differ in depth and breadth; therefore students should consult the pre-medical or pre-dental adviser concerning the choice. The B.S. (ecology) is provided for those who have made an early decision to emphasize that aspect of biology. The B.S. (marine biology) allows concentration in that area. The B.S. (biology-mathematics) is offered for those students interested in quantitative biology: statistics, biometry, some kinds of ecology and computer modeling of biological systems. The B.S. (biology-chemistry) is designed for students who wish to pursue graduate study in molecular biology or biochemistry.

Many students are deeply interested in biology or one of its component specialties, but not in teaching or other professional careers. These students may wish to combine biology with another area of interest such as history or law; they may wish to enter the medical or dental professions with a liberal education and a baccalaureate degree; they may want an early opportunity to study in depth only one aspect of the field; or the student may simply want to make the science of life the focus of a liberal education. These students are encouraged to consider the Bachelor of Arts degree in which the number of required courses has been kept low to permit the student to select areas of study and courses suited to his individual needs and interests. Programs one might design under this major include combinations of biology and another discipline such as art, psychology, physical education, anthropology, speech or philosophy.

The Biology Department maintains an effective program of advisement; students interested in any of the above are urged to consult an adviser as early in their college careers as possible.

TEACHING CAREERS IN BIOLOGY

Many of Western's students are interested in careers in teaching. To be effective in teaching biology, one must also have a solid foundation in the other sciences. Thus, those interested in teaching in the larger secondary schools are urged to complete a B.S. (biology emphasis) including Biol 493 and the professional education sequence (see Education). The professional education courses may be included as electives in the baccalaureate program or may be taken during a post-baccalaureate year, part of which may be applied to the fifth-year requirement for standard certification. Students entering this program are urged to seek departmental advisement as soon as possible. Those who expect to teach in smaller

secondary programs are advised to consider one of the combined major B.A. in Education programs (biology-chemistry or biology-physical science). Certification for teaching competency in biology may also be obtained by taking an extended minor in biology in addition to a major in a related area such as environmental education or physical education.

Students planning to teach at the college level are advised to complete a B.S. (biology) and graduate work leading to a master's or doctoral degree.

Students who wish to teach at the elementary or intermediate levels are advised to take the general science major (see Interdepartmental Programs section). Note that Science Education 383 (formerly Biology 383) is Biological Science for the Intermediate School (see Interdepartmental Programs section).

THE BIOLOGY LABORATORIES AND PROGRAM

The Biology Department is housed partly in Haggard Hall and partly in the Environmental Studies Center. The laboratories are modern and well-equipped. The department shares the facilities of the Sundquist Marine Laboratory at Shannon Point, the Science Education Center, an electron microscope laboratory, and can utilize the services of the Computer Center.

Biology at Western stresses learning by doing, "open ended" study, and audiovisual teaching aids. Students explore the Gulf Islands, California's Coast Range and Sierras, Central Oregon's Malheur Game Refuge, and the Grand Canyon on field trips between quarters or during the summer. The biology of the Cascade Mountains, San Juan Archipelago, caves of Washington, a host of lakes and streams, and the arid Palouse country of Eastern Washington are studied on weekend field trips.

THE BIOLOGY FACULTY

The members of the biology faculty have been chosen to represent as broadly as possible the diverse aspects of the discipline. Students planning to major in the field are urged to plan carefully with departmental advisers early in their college careers to assure the proper sequence of courses selected.

- GERALD F. KRAFT (1961) Chairman.
Associate Professor. BA, San Jose State College; MS, Washington State University; PhD, Oregon State University.
- A. CARTER BROAD (1964) Professor. BA, MA, University of North Carolina; PhD, Duke University.
- HERBERT A. BROWN (1967) Associate Professor. BA, University of California, Los Angeles; PhD, University of California, Riverside.

- MAURICE A. DUBE (1963) Associate Professor. BS, Washington State University; MS, PhD, Oregon State University.
- JOHN E. ERICKSON (1964) Associate Professor. BA, University of Omaha; AM, Indiana University; PhD, University of Oregon.
- CHARLES J. FLORA (1957) Professor. BS, Purdue University; MEd, EdD, University of Florida.
- RICHARD W. FONDA (1968) Associate Professor. BA, Duke University; MS, PhD, University of Illinois.
- HUBERTUS E. KOHN (1966) Associate Professor. PhD, University of Innsbruck, Austria.
- JAL S. PARAKH (1966) Professor. BS, Osmania University, India; MS, University of Florida; PhD, Cornell University.
- MERIBETH M. RIFFEY (1957) Associate Professor. BS, MS, Northwestern University; PhD, Washington State University.
- JUNE R. P. ROSS (1967) Professor. BSc, PhD, DSc, University of Sydney, Sydney, Australia.
- DAVID E. SCHNEIDER (1966) Associate Professor. BS, Bates College; PhD, Duke University.
- DONALD J. SCHWEMMIN (1960) Associate Professor. BS, MS, PhD, University of Michigan.
- CLYDE M. SENGER (1963) Professor. BA, Reed College; MS, Purdue University; PhD, Utah State University.
- IRWIN L. SLESNICK (1963) Professor. AB, BS, Bowling Green State University; MS, University of Michigan; PhD, Ohio State University.
- RONALD J. TAYLOR (1964) Professor. BS, Idaho State College; MS, University of Wyoming; PhD, Washington State University.
- DON C. WILLIAMS (1968) Professor. BA, Chico State College; MA, PhD, University of California, Davis.

Research Associate

- Richard T. Haard (1974)
AAS, State University of New York; BS, University of Georgia; MS, PhD, Kansas State University.

BACHELOR OF ARTS

Major 50 credits plus Supporting Courses

Biology emphasis for liberal arts and other students.

- Biology 120 (or 101), 210, 321 or 370, 323 or 325
- Electives to total 50 credits in biology selected with approval of major adviser
- Chemistry 115 and 251, or equivalent

Premedical and allied sciences emphasis.

- Biology 120 (or 101), 210, 312, 321 or 370, 323, 485
- Electives to total 50 credits in biology selected from Biology 208, 310, 311, 325, 340, 345, 348,* 349,* 366, 368, 408, 450, 464, 490
- Chemistry 121, 122, 123, and 351, 352, 353, 354 (or 251*)
- Physics 131, 132, 133 (or 231, 331, 332)

*Not recommended for premedical majors.

Natural history emphasis.

- Biology 120 or 101, 210, 325, 352 or 202, 370 or 321, 424 or 203, 454 or 201, 456 and 461 or 205, 465 or 204, 463 or 206
- Electives to total 50 credits in biology selected from Biology 307, 311, 312, 352, 402, 404, 424, 453, 454, 456, 461, 463, 465
- Chemistry 115 and 251
- Geography 203 and 310
- Geology 211 or 101, 310 or 314
- Recreation & Park Management 101 or 171, 201, 321, 322
- Recommended elective courses: Geog 251, 331, 421; Geol 311; Sci Ed 430; Hux 436, 482; PE 151, 216, 252; Physics 103 or 204; Soc 352, 422

BACHELOR OF ARTS IN EDUCATION

COMBINED MAJOR – BIOLOGY-CHEMISTRY

Major Concentration 92-96 credits

- Chemistry 121, 122, 123, 251, 333, 411, 412
- Biology 120 or 101, 210, 321 or 370, 325
- 10 credits from Biology 310 or 345, 311, 312
- Biology 485 or General Science 405
- Physical Science 492 and Biology 493
- Chemistry 371 or Biology 323
- Mathematics 220 and Physics 131, 132, 133 (or 231, 331, 332)

NOTE: This program is specifically designed for students who wish to be recommended for teaching competence in both biology and chemistry. Students entering this curriculum are advised that this combination major contains more credits than the Bachelor of Arts in biology. Depending upon options chosen, the overall student program may involve more than 180 credits.

Teaching Competence

Recommendations for teaching competence with the chemistry-biology major concentration normally requires completion of the program with a grade point average of 2.50 or better in the chemistry and in the biology courses.



Biology

COMBINED MAJOR BIOLOGY-PHYSICAL SCIENCE

Major Concentration 92-96 credits

- Chemistry 121, 122, 123, 251
- Physics 131, 132, 133 or 231, 331, 332
- Physical Science 492
- Biology 120 or 101, 210
- Biology 310 or 345, 311, 312
- Biology 321 or 370, 325, 493
- Biology 485 or General Science 405
- Chemistry 371 or Biology 323
- 5 credits in geology
- Math 124 or 220

NOTE: This program is specifically designed for students who wish to be recommended for teaching competence in both biology and chemistry. Students entering this curriculum are advised that this combination major contains more credits than the Bachelor of Arts in Education in chemistry or a Bachelor of Arts in biology. Depending upon options chosen, the overall student program may involve more than 180 credits.

BACHELOR OF SCIENCE

Pre-professional program for professional biologists, students pursuing graduate work, secondary teachers and related specialties.

Major Concentration 110 credits

Basic biology emphasis.

- Biology 120, 210, 310, 311, 312, 321, 323 (or Chem 471, 472 and 473), 325, 340, 485
- Chemistry 121, 122, 123, 251 (or 351, 352 and 353)
- Geology 211
- Math 124 or 220
- Physics 131, 132, 133 (or 231, 331, 332)
- Biology 493 (teacher preparation only)
- Electives to be taken from biology, chemistry, computer science, geography, geology, mathematics, physics and Huxley College selected with approval of departmental adviser

Ecology emphasis.

- Biology 120, 210, 311, 312, 325, 340, 490
- Complete the courses under one of the three concentrations listed below. Student *must* register with the appropriate adviser.
 - Animal ecology (D. Schneider, adviser): Biology 403, 460, 464
 - Plant ecology (R. Fonda, adviser): Biology 352, 379, 404
 - Aquatic ecology (G. Kraft, adviser): Biology 402, 403, 425

- Chemistry 121, 122, 123, 333 - the appropriateness of other chemistry courses should be discussed with an adviser
- Geology 211
- Mathematics 124 - the appropriateness of the math requirement should be discussed with an adviser
- Physics: two quarters, under advisement
- Electives selected with approval of adviser to total at least 110 credits. Some of the courses from which electives should be taken: Biol 321, 323, 345, 402, 405, 406, 424, 425, 450, 463, 465, 481, 485; Chem 351, 352, 353 (or 251), 411, 412, 413; Geog 331, 423, 424; Geol 310, 340; Hux 331a, 363, 465; Computer Science 110, 211; Math 125, 126

Marine biology emphasis.

- Biology 120, 210, 310, 312, 325, 340, 403, 406, 407, 456, 490 and 460 or 461
- Chemistry 121, 122, 123 and 251 (or 351, 352, 353)
- Physics 131
- Mathematics 220 (or 121, 124)
- Electives under advisement from the following list to total at least 22 credits: Biology 321, 323, 361, 362, 460, 461, 468, 485; Chemistry 333, 471, 472; Geology 211, 340; Huxley 321, 422, 423; Physics 132, 133
- Ichthyology is a strongly recommended course (Biology 462)

COMBINED MAJOR -- BIOLOGY AND CHEMISTRY

Major Concentration 110 credits

- Biology 120, 210, 321, 323, 345, 408, 471
- Chemistry 121, 122, 123, 333, 351, 352, 353, 354, 471, 472, 473, and 411, 412, 413 (or 461, 462, 463)
- One year college physics
- Mathematics 124, 125

This program is specifically designed for students who wish to undertake graduate study in either molecular biology or biochemistry.

COMBINED MAJOR -- BIOLOGY AND MATHEMATICS

Major Concentration 110 credits

- Biology 120, 210, 310, 311, 312, 321, 323, 325
- Mathematics 124, 125, 126, 241, 301, 331, 341, 342; Math/Computer Science 335 (or Physics 332); Computer Science 210, 211, 439
- Chemistry 115, 251
- Physics 231, 331, 332 (or Math/CS 335)

MINOR PROGRAMS

Minor 25 credits

- Biology 120 or 101
 Biology 210

Student advised to consult major department for remainder of credits.

Extended Minor 42-48 credits

Minimum requirements for certification for teaching competence.

- Biology 120 or 101, 210, 310, 311, 312, 321, 323 (or 348 and 349) or 379, 325, 493

DEPARTMENTAL HONORS

In addition to the general requirements for all honors students, a biology major who wishes to graduate "with honors" will enroll in Biology 396a,b,c and 496a,b,c upon advisement of the Departmental Honors Adviser with whom he will work out an individual plan of study and honors thesis.

GRADUATE STUDY

For concentrations leading to the Master of Education or the Master of Science degrees, see the *Graduate Bulletin*.

COURSES IN BIOLOGY

- 101 PRINCIPLES OF GENERAL BIOLOGY (4)
 Energy relationships at all organizational levels of life, heredity, evolution, and man's impact on the biosphere.
- 103 HUMAN BIOLOGY (4)
 Elementary human physiology: the functional anatomy of the human. Lectures and demonstrations. Not open to students with credit in Biol 348. Not applicable to a B.S. major in biology.
- 120 THE SCIENCE OF BIOLOGY (5)
 Prerequisite: one quarter of college chemistry. Nature of science and biology, biology and society, organizational levels, major unifying and inter-related concepts.
- 201-206 FIELD BIOLOGY OF THE NORTHWEST (3 ea)
 Prerequisite: high school biology recommended. Recognition, life history, ecological relationships and distribution, evolutionary trends of representative groups of organisms. Field biology courses are not open to students who have credit for corresponding upper-division courses.
- 202 Flowering Plants, Conifers and Ferns
 203 Insects and Other Terrestrial Arthropods
 205 Marine Biology
 206 Birds of the Northwest
 Normally offered spring quarter of alternate years. Last offered spring, 1976.
- 208 FOREIGN CHEMICALS AND NATURAL SYSTEMS (3)
 Prerequisites: Biol 101 and Chem 101. An elementary treatment of the effect and mechanism of such currently encountered substances as pesticides, food additives, hallucinogenic drugs, and conventional drugs (alcohol, tobacco and coffee). Normally offered in alternate years. Last offered 1975-76.
- 210 THE SCIENCE OF BIOLOGY (5)
 Prerequisite: Biol 120 or, with permission of instructor, 101. Nature of science and biology, organizational levels, major unifying and inter-related concepts, principles of inquiry.
- 237 FOREIGN STUDY (2-5)
 (See Biology 437.)
- 305 NATURAL HISTORY OF THE NORTHWEST (5)
 Prerequisite: Biol 101. Kinds of plants and animals in the Northwest; their distribution and life histories; field trips to beaches, lakes and ponds, forests, mountains. Not applicable to a B.S. major in biology.
- 307 HUMAN POPULATIONS AND NATURAL RESOURCES (3)
 Prerequisite: Biol 101. Growth of human populations; changes in natural resources resulting in growth; prospects and consequences of population increases and resource utilization. Not applicable to major or minor. Normally offered in alternate years. Last offered 1975-76.
- 308 HUMAN REPRODUCTION AND SEXUALITY (3)
 Prerequisite: Biol 101 and junior standing. Anatomy, physiology and embryology of human reproduction; behavior, disease, fertility control and other topics related to human reproduction and sexuality.
- 310 THE BIOLOGY OF LOWER ORGANISMS (5)
 Prerequisite: Biol 210. An introduction to the basic biology of bacteria, fungi, algae, lichens, protozoa and sponges with emphasis on ecological relationships of lower organisms to one another and to other organisms, their occurrence in nature, and the classification of organisms.
- 311 PLANT BIOLOGY (5)
 Prerequisite: Biol 210. Basic physiological principles; evolutionary trends and adaptations in structural development and reproductive systems of higher plants—Bryophytes through Angiosperms.
- 312 ANIMAL BIOLOGY (5)
 Prerequisite: Biol 210. A course that stresses the ways in which animals cope with the basic problems of survival: locomotion, nutrition and the utilization of food; integration of activities on both community and individual levels, reproduction and development.
- 321 HEREDITARY BIOLOGY (5)
 Prerequisite: 14 credits in biology. Basic problems, theories and principles of genetics; laboratory experiments with *Drosophila*.
- 323 CELLULAR, MOLECULAR AND DEVELOPMENTAL BIOLOGY (5)
 Prerequisites: 14 credits in biology; Chem 251 or 351 and 352. Students planning to take both Biol 345 and 323 should take 345 first. Cell organelle structure and function, water relationships, membrane phenomena, energy utilization and production, cellular biosyntheses, control of cellular activities, developmental processes at the cellular level.

Biology

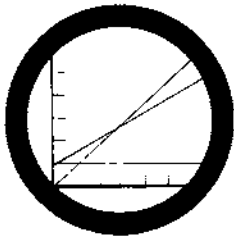
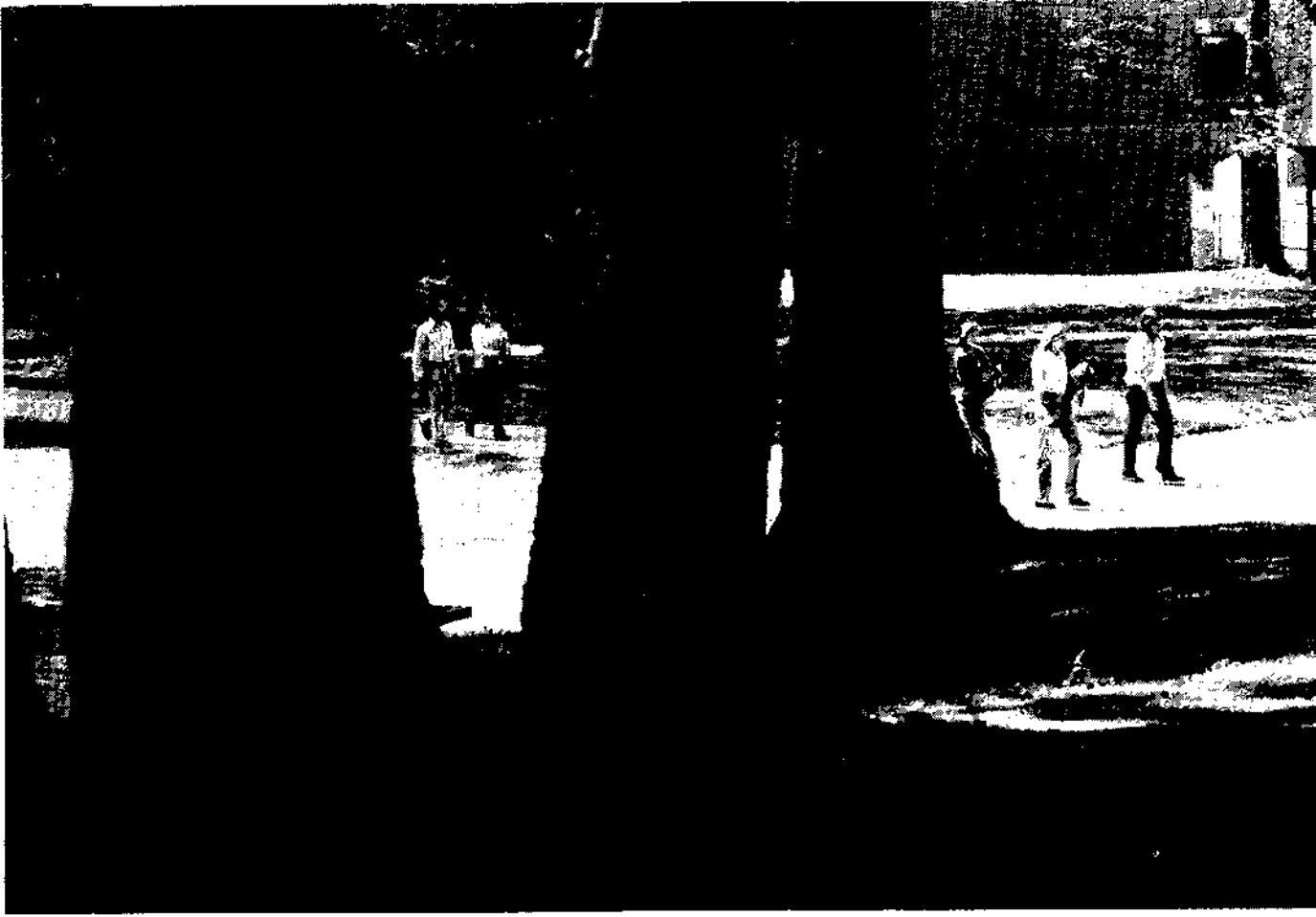
- 325 **ECOLOGY (5)**
Prerequisite: 14 credits in biology; chemistry and physics recommended. Community energetics and organismal-environmental relationships in marine, fresh water and terrestrial habitats.
- 337 **FOREIGN STUDY (2-5)**
(See Biology 437.)
- 340 **BIOMETRICS (5)**
Prerequisites: Math 124 or 220; 10 hours of biology. Hand calculator with memory recommended. The design of biological experiments, appropriate statistical analysis of experimental data and design of computer programs specifically for statistical tests.
- 345 **FUNDAMENTALS OF MICROBIOLOGY (5)**
Prerequisites: Chem 121, 122 and 251; 10 credits in biology. Students planning to take both Biol 345 and 323 should take 345 first. Comparative morphology, taxonomy, physiology and relationship of microbes; bacteria, yeasts, molds and viruses.
- 348, 349 **HUMAN ANATOMY AND PHYSIOLOGY (5 ea)**
Prerequisite: Biol 101; Biol 348 prerequisite to 349. Structure and function of the human body emphasis on physiological principles and homeostatic mechanisms.
- 352 **SYSTEMATIC BOTANY (5)**
Prerequisite: Biol 311. Taxonomy of higher plants with emphases on the characteristics and phylogeny of flowering plant families; collection and identification of local species.
- 361 **BIOLOGY OF COMMERCIALY IMPORTANT MARINE SPECIES (3)**
Prerequisite: 15 credits in biology or environmental science. A course that deals with the life histories, ecological relationships, basic biology and commercial exploitation of economically important marine animals and plants. Emphasis on species of the Pacific Northwest.
- 362 **FIELD TRIPS IN COMMERCIAL FISHERIES AND FISHERY LABORATORIES (2)**
Prerequisite: concurrent enrollment in Biol 361. Afternoon, weekend or intersession field trips to commercial fishery laboratories of the Pacific Northwest. Students enrolled in this course will provide their own food, transportation (by car pool) and lodging if necessary on field trips. S/U grading only.
- 366 **COMPARATIVE VERTEBRATE ANATOMY (5)**
Prerequisite: Biol 312. Morphology and evolution of organic systems of major vertebrate groups.
- 368 **GENERAL VERTEBRATE EMBRYOLOGY (5)**
Prerequisite: Biol 312. Development of the vertebrates; laboratory study of embryos of the frog, chick, and pig with application to human development.
- 370 **HUMAN GENETICS (4)**
Prerequisite: Biol 101. Basic principles of heredity, human genetic problems: radiation and mutation, chromosomal errors, eugenics. Not open to students with credit in Biol 321.
- 379 **PLANT PHYSIOLOGY (5)**
Prerequisite: Biol 311. 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.
- 384 **PERSONAL AND SOCIAL IMPLICATIONS OF MODERN BIOLOGY (4)**
Prerequisite: Biol 101 or 120 and junior standing. Recent developments in biology and their impact on the individual and on society; emphasis on potential effects on individual values and social implications of selected developments in such areas as behavior control, genetic alteration and organ replacement.
- 396a,b,c **HONORS TUTORIAL (2-5 ea)**
- 397d **ANIMAL BEHAVIOR (4)**
Prerequisite: an introductory college course in biology, zoology or psychology. Behavioral adaptations at the systemic, organismal and population levels, with stress on sociobiology. Ethological field observations. (Summer 1977)
- 397e **AMPHIBIANS AND REPTILES OF WESTERN WASHINGTON (3)**
Prerequisite: one quarter of college biology. Recognition, life history, ecological relationships and distribution of frogs, salamanders, lizards and snakes of western Washington. Course will emphasize field biology. (Summer 1977)
- 399 **SEMINAR IN BIOLOGY (1)**
Prerequisite: 25 credits in biological sciences and permission of instructor. Outstanding developments, past and present, in the biological sciences. May be repeated for credit.
- 400 **SPECIAL PROJECTS IN BIOLOGY (2-5)**
Prerequisite: permission of instructor. May be repeated for credit.
- 402 **LIMNOLOGY (5)**
Prerequisite: Biol 325. Physical and chemical characteristics of fresh water in relation to biotic communities; field trips. Normally offered in alternate years. Last offered 1975-76.
- 403 **PHYSIOLOGICAL ECOLOGY OF ANIMALS (5)**
Prerequisite: Biol 325 and permission of instructor. Field and laboratory studies of physiological responses of marine animals to environmental factors; methods for design and analysis of experiments.
- 404 **PLANT ECOLOGY (5)**
Prerequisite: Biol 325; Biol 311 recommended. Ecology of plant communities with special emphasis on analysis, description, succession, and distribution. Weekend field trips included.
- 405 **FIELD ECOLOGY (3)**
Prerequisite: Biol 325 and permission of instructor; Biol 352 and 404 recommended. Analysis and investigation of vegetation patterns in Arizona, California, or other regions. Field trip. May be repeated for credit.
- 406 **GENERAL OCEANOGRAPHY (5)**
Prerequisite: one quarter of college physics, one quarter of college chemistry and one quarter of college biology. Studies in and interrelationship of biological, chemical, physical and geological oceanography. Limited laboratory study of oceanographic techniques. Normally offered in alternate years. Last offered 1976-77.
- 407 **MARINE ECOLOGY (5)**
Prerequisite: Biol 325 (ecology). The interaction of physical, chemical, and biological processes in the functioning of marine ecosystems. Productivity, food webs, nutrient cycles and community ecology will be discussed. Investigative laboratory studies of local shallow-water marine and estuarine ecosystems.

- 408 MOLECULAR ECOLOGY (3)**
Prerequisites: Biol 323 (or Chem 471), Chem 251; Biol 325 recommended. The effect and molecular mechanism of action of selected natural and synthetic chemical compounds, both naturally occurring and introduced, upon target and non-target organisms; effects upon occurrence and distribution of organisms. Normally offered in alternate years. Last offered 1976-77.
- 423 FIELD ENTOMOLOGY (1-2)**
Prerequisite: Biol 312. Insect collecting and field identification; preparation of insect collections; intersession course of one or two weeks' duration.
- 424 ENTOMOLOGY (5)**
Prerequisite: Biol 312. Insects: their morphology, physiology, metamorphoses, classification and economic importance.
- 425 AQUATIC ENTOMOLOGY (3)**
Prerequisite: Biol 312; 424 recommended. Classification and ecological relationships of insects in streams and lakes.
- 430 SCIENTIFIC WRITING FOR BIOLOGISTS (3)**
Prerequisites: 40 credits in biology and permission of instructor. The techniques of writing a biological journal article; elements of style; line drawings, lettering and reproduction of figures; reading and reviewing biological papers.
- 437, 337, 237 FOREIGN STUDY (2-5)**
A study of biological topics particularly appropriate to the location of the course offering. Presently offered only in Guadalajara. These courses are offered only through the Study Abroad program. Contact Foreign Study Office, Miller Hall 353, for information.
- 445m COMMON LOCAL FLORA AND VERTEBRATES (5)**
Natural history of the terrestrial and freshwater environment of the Puget Sound region; taxonomic survey of plants and vertebrates and their interrelationships. Offered only during the summer quarters as a component of the Natural History Institute. Not applicable to a B.S. major in biology.
- 445n MARINE NATURAL HISTORY OF THE NORTHWEST (5)**
The marine environment of the Puget Sound region; taxonomic survey of plants and animals of the communities and their interrelationships. Offered only during the summer quarters as a component of the Natural History Institute. Not applicable to a B.S. major in biology.
- 445t NATURAL HISTORY OF THE NORTHWEST: LABORATORY (7)**
Prerequisite: concurrent enrollment in Biol 305 and acceptance in the Natural History Institute. Natural history of terrestrial and fresh-water environments; observations and identification of representative plants and animals; patterns of vegetation zonation and structure of natural communities. Emphases will be on higher plants and insects, their form, function and interaction. A field and laboratory course offered only as a component of the Natural History Institute. Not applicable to a B.S. major in biology. Summers only.
- 450 PARASITOLOGY (5)**
Prerequisites: Biol 312; two quarters of college chemistry. Representative animal parasites with emphasis on structural and physiological adaptations of parasite and host.
- 453a ALPINE ENVIRONMENT AND VEGETATION (5)**
Prerequisite: Biol 325 (ecology) or equivalent. Open to Institute participants only. The environment of the Olympic, Cascade and Rocky mountains; the nature of the alpine flora and the plant communities of these mountains; the interactions between environmental regimes and plant species that produce the vegetative pattern of the alpine environment. Offered only during the summer as a component of the Alpine Institute.
- 453b ALPINE FAUNA (5)**
Prerequisite: Biol 325 (ecology) or equivalent. Open only to Institute participants. The animals of the mountains; niches occupied by resident and transient species; adaptations to alpine conditions. Offered only during the summer as a component of the Alpine Institute.
- 454 MYCOLOGY (5)**
Prerequisite: Biol 310. Taxonomy of the fungi with emphasis on morphology, phylogenetic trends, collection and identification of common species. Several weekend field trips are required.
- 456 ALGAE (5)**
Prerequisite: Biol 310. Collection, culture, identification, classification, distribution and economic importance of marine and fresh-water algae.
- 458 BRYOPHYTES (5)**
Prerequisite: 10 credits in biology. Collection, identification, distribution and evolution of mosses and liverworts. Normally offered in alternate years. Last offered 1976-77.
- 460 INVERTEBRATE ZOOLOGY (5)**
Prerequisite: Biol 312. Classification, anatomy, physiology, development and general biology of invertebrate animals.
- 461 MARINE INVERTEBRATE ZOOLOGY (5)**
Prerequisite: Biol 325. Laboratory and field study of local marine invertebrates.
- 462 ICHTHYOLOGY (5)**
Prerequisite: Biol 312. Form and function of fishes; life histories; behavioral adaptations; ecological relationships; distribution; evolution and classification; socio-economic value.
- 463 ORNITHOLOGY (5)**
Prerequisites: Biol 120, 210 or 101. Evolution of morphological adaptations of birds, classification, distribution; annual cycle including migration, breeding and population dynamics; laboratory study, field trips. Normally offered spring quarter of alternate years. Last offered spring 1977.
- 464 VERTEBRATE ZOOLOGY (5)**
Prerequisite: Biol 312. Selected topics in the basic biology of the major groups of vertebrate animals; classification, life cycles, elementary physiology, and structure of representative forms; consideration of their role in ecosystems.
- 465 MAMMALOLOGY (5)**
Prerequisite: Biol 312. Structural and physiological adaptations population dynamics, distribution and classification of mammals with laboratory emphasis on local species. Normally offered in alternate years. Last offered spring 1976.
- 468 INVERTEBRATE EMBRYOLOGY (5)**
Prerequisites: Biol 368, 460 or 461. Development of invertebrate animals; laboratory study of local, marine invertebrates. Taught only at the Shannon Point Marine Center during the spring or summer quarters. Normally offered in alternate years. Last offered 1975-76.
- 471 PHYSIOLOGICAL GENETICS (5)**
Prerequisites: Biol 321 and 323. Structure and chemical composition of genetic material; genetic systems of bacteria, viruses, yeasts and molds; aspects of biochemical genetics of man applying to the nature of gene functions.
- 475 STRUCTURE AND DEVELOPMENT OF VASCULAR PLANTS (4)**
Prerequisite: Biol 311. A study of plant organs and their tissues from the standpoint of origin, differentiation, growth and maturation. Normally offered in alternate years. Last offered 1976-77.

Biology

- 481 **PHYSIOLOGICAL ECOLOGY OF PLANTS (5)**
Prerequisite: Biol 325. Field and laboratory study of physiological responses of plants to environmental factors; methods of design and analysis of experiments. Normally offered in alternate years. Last offered 1976-77.
- 485 **HISTORICAL AND PHILOSOPHICAL PERSPECTIVES OF BIOLOGY (5)**
Prerequisite: 20 credits in science, 15 in biology. The origins and development of biology as a science viewed in historical and philosophical perspective; the interaction of biology and society.
- 486 **SPECIAL PROJECT IN HISTORICAL AND PHILOSOPHICAL PERSPECTIVES OF BIOLOGY (1)**
Prerequisite: concurrent enrollment in Biol 485.
- 490 **PRINCIPLES OF ORGANIC EVOLUTION (4)**
Prerequisites: Biol 120 and 210. Principles, patterns, processes, and mechanisms of evolution in the organic world.
- 493 **TEACHING BIOLOGICAL SCIENCE (3)**
Prerequisite: 15 credits in biological science. Recent trends in biology and science education; critical study of modern curriculum materials, clinical analysis of teaching and laboratory work. For biology teachers in secondary schools and in higher education.
- 496a,b,c **HONORS TUTORIAL (2-5 ea)**
- 500 **SPECIAL PROJECTS IN BIOLOGY (2-5)**
Prerequisite: permission of instructor. May be repeated for credit.
- 503 **ADVANCED TOPICS IN ECOLOGY (4)**
Prerequisites: Biol 325 and permission of instructor. Analysis of current literature on fundamental properties of ecosystems, communities, populations, species, and characteristic environments.
- 514 **VEGETATION OF WASHINGTON (4)**
Prerequisites: Biol 325 or equivalent and permission of instructor (Biol 404 recommended). Consideration and discussion of the literature on the vegetation of Washington; emphasis on the pattern of vegetation in the five physiographic provinces and environmental factors controlling distribution of species.
- 515 **PLANT GEOGRAPHY OF NORTH AMERICA (4)**
Prerequisites: Biol 325 or equivalent and permission of instructor (Biol 352 and 404 recommended). Vegetative zonation of North America emphasizing factors controlling distributional patterns and paleogeographical history of major biomes.
- 568 **TOPICS IN DEVELOPMENTAL AND COMPARATIVE MORPHOLOGY (4)**
Prerequisites: one course from Biol 456, 475, 366, 368 as appropriate to topic offered; permission of instructor. Structural changes, cellular interactions, and control mechanisms operating during growth and development or evolution of selected organisms.
- 571 **ADVANCED TOPICS IN GENETICS (4)**
Prerequisites: Biol 321 and permission of instructor. Inheritance and gene action in plant, animal, and microbial systems; illustrative experiments with *Drosophila*, *Aspergillus*, or other organisms.
- 577 **ADVANCED TOPICS IN PHYSIOLOGY (4)**
Prerequisites: Biol 323 or Chem 471 and permission of instructor. Topics in general, microbial, or comparative physiology; laboratory work illustrating processes or experimental techniques.
- 578 **PROTEIN STRUCTURE, FUNCTION AND EVOLUTION (4)**
Prerequisite: Biol 323 or Chem 471 or permission of instructor. Detailed investigation into the molecular structure and function of such proteins as enzymes, antibodies, histones, muscle proteins and hemoglobins. The use of proteins in establishing evolutionary relationships between organisms.
- 579 **ENZYMOMOLOGY LABORATORY (3)**
Prerequisite: Biol 323 or Chem 471 or permission of instructor. Techniques in isolation and characterization of various enzymes; purification techniques and determination of various kinetic parameters.
- 583 **ADVANCED TOPICS IN BIOSYSTEMATICS (4)**
Prerequisite: permission of instructor. Role of morphology cytology biochemistry, and genetics in taxonomy: systematic study of a specific group of local organisms.
- 595 **TEACHING PRACTICUM (1)**
Prerequisite: permission of instructor. Intended for the student who wants experience in teaching a biology course of his choice. May be repeated for a maximum of two credits, S/U grading only.
- 599 **SEMINAR IN BIOLOGY (2)**
Prerequisite: 40 credits in biology. Selected problems in biology, with emphasis on current literature. May be repeated for credit.
- 690 **THESIS RESEARCH (1-12)**
Prerequisite: permission of thesis adviser. Research contributing to a graduate degree program. Graded K until thesis completed. May be repeated for credit.





BUSINESS ADMINISTRATION

College of Business and Economics

The field of business administration covers a wide variety of responsibilities in both private and public organizations. National data reveal that the business administration major is the most frequent choice of undergraduate students and also is the major preferred by many employers.

MODEL FOR CURRICULUM

Development of the business administration curriculum has been guided by standards of the American Assembly of Collegiate Schools of Business. Required coursework provides opportunities for students to develop:

1. Their knowledge of the economic and social environment within which business functions;
2. Their knowledge of the major functional areas of business;
3. Their perceptual and analytical skills important to management decision-making; and

4. The basis for growth and advancement in their selected career.

Students normally devote most of the freshman and sophomore years to acquiring a broad general education background. Introductory courses in accounting, economics, business law, and mathematics will normally be completed by the end of the sophomore year. Junior and senior requirements and pursuing elective coursework selected according to individual interest and/or need. Elective coursework helpful for developing oral and written communication skills is particularly recommended. The faculty is available to advise students on these choices.

ORGANIZATION OF CURRICULUM

Coursework offered within the department may be broadly classified into several fields which cover general management, business law, finance, mar-

Business Administration

keting, operations, and personnel and industrial relations. In addition to required courses in each field which are identified under major requirements, students may specialize in a field, such as finance, by adding appropriate electives. The Accounting and Economics departments provide complementary required and elective coursework.

CONTINUING EDUCATION

In addition to regular daytime classes, the department offers a number of evening classes. These classes are intended to serve both regular degree-oriented students and persons whose interests and objectives may involve only a few courses. Mature students who have not completed formal prerequisites, but who have equivalent experience, may have prerequisites waived. Such persons are urged to contact the course instructor prior to registration.

ADVANTAGES OF EARLY DECLARATION OF MAJOR

Faculty of the College of Business and Economics provide individual advising for students who express interest in majoring, minoring or taking elective coursework. Students who declare a major are assigned to a permanent faculty adviser who will assist them to graduation.

Several courses in business law, economics and mathematics which are required or recommended for majors and minors also may satisfy general education requirements in mathematics and social sciences. Careful planning may save time for additional electives.

An early declaration of major also provides faculty with an improved basis for class scheduling.

PRACTICAL EXPERIENCE

A limited number of student internships are available for well qualified students. There are several existing internship programs which provide the student with active business experience. In addition, special intern programs can be arranged. These one-quarter internships are normally arranged for late in the junior or early in the senior year so that experiences may be shared in subsequent classes.

BUSINESS ADMINISTRATION FACULTY

EUCENE OWENS (1975) Chairman.
Associate Professor. BS, University of Arizona; MS, Purdue University; MS, George Washington University; PhD, University of California, Los Angeles.
JONATHAN S. MONAT (1972) Assistant Professor. BS, University of California, Los Angeles; MS, San Diego State College; PhD, University of Minnesota.

JOHN S. MOORE (1970) Associate Professor. BS, University of North Dakota; MS Bus, JDLaw, University of Colorado; CPA, State of Colorado.
ROBERT T. PATTON (1970) Associate Professor. BSME, University of Michigan; MBA, University of Minnesota; PhD, University of Washington.
E. LEROY PLUMLEE (1976) Associate Professor. BBA, Texas Tech University; MS, Northern Illinois University; DBA, Texas Tech University.
FARROKH SAFAVI (1969) Associate Professor. BA in Journalism, BS in Economics, MBA, University of Teheran; MBA, DBA, University of Southern California (Los Angeles).

Transfer students should contact the department adviser about their major prior to registering so as to assure that they enter the sequence correctly and receive departmental evaluation of course work completed at other institutions.

BACHELOR OF ARTS

Major 94 credits

- Acctg 251, 252, 350; BA 271, 301, 302, 303, 308, 311, 322, 330, 375 or 376, 495
- Econ 201, 202, 306, 311
- Math 250, 251, 252
- Ten credits in upper-division business administration elective courses under advisement

Business administration majors must complete a minimum of 72 credits in accounting and business administration courses (nine credits in economics may be included as part of this requirement.)

Students should consider improving their communication skills by enrolling in Business Education 301 (4), Business Communications; English 401 (3), Business and Technical Report Writing; and Speech 488 (3), Business and Professional Speech.

Minor 25 credits

- Acctg 251, 252; BA 301, 303; Econ 201, 202
- One additional upper-division business administration course



PREREQUISITES

Prerequisites for a particular course indicate its level of analysis and tool requirements. The exceptional student who feels he has already acquired these skills elsewhere, or can readily acquire them, must secure special permission for enrollment from the instructor and chairman.

COURSES IN
BUSINESS ADMINISTRATION

- 201 INTRODUCTION TO BUSINESS (4)
A survey of the field particularly directed to the needs of students majoring in office administration and business education. Recommended for other students, not intending to specialize in the fields of business and economics, who recognize the value of a broad informational background. The course will cover the definition and uses of accounting and financial data, the scope and application of economics to the businessman, the scope and application of mathematical tools, and the methodologies used to gain and impart this education.
- 271 LAW AND THE BUSINESS ENVIRONMENT (4)
Historical development of legal institutions, the judicial process, and impact of the law upon individual and business decision making.
- 300 READINGS IN BUSINESS ADMINISTRATION (1-5)
Prerequisites: (1) for minor: completion of Acctg 251, 252; BA 301, 303; Econ 201, 202 and permission of instructor; (2) for other: permission of instructor and department chairman by petition.
- 301 INTRODUCTION TO MANAGEMENT (4)
Analysis of the process of management; planning, organization, leadership, control, communication, and decision making. A study of concepts of power, authority and influence. An examination of the role of philosophy and values in organizations.
- 302 OPERATIONS MANAGEMENT (4)
Prerequisites: Acctg 350, BA 301, 303, 375 or 376. Fundamentals of operations management, including tools for analyzing, designing and controlling operating systems.
- 303 HUMAN RELATIONS IN ORGANIZATIONS (3)
Prerequisite: BA 301. Examination of individual and group behavior in organizations. Case problems and experiential learning exercises are utilized.
- 308 BUSINESS HISTORY OF THE UNITED STATES (3)
Prerequisites: Econ 201 and 202, or Gen St 200 and permission of instructor. 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.
- 311 CORPORATE FINANCE (5)
Prerequisites: Acctg 350, BA 301, 375 or 376. Structure and operation of financial management; problems of internal financial analysis, forecasting, planning and control, capital supply and budgeting; dividend policy; mergers, acquisitions.
- 322 PERSONNEL ADMINISTRATION (4)
Prerequisite: BA 301. Recruitment, selection, utilization, and development of human resources, with emphasis on employee-management relations and relevant behavioral regulations.
- 330 PRINCIPLES OF MARKETING (5)
Prerequisite: BA 301. Institutions, functions, problems and policies in the distribution of industrial and consumer goods; pricing, costs, and governmental regulations.
- 331 ADVERTISING (4)
Prerequisite: BA 330. Promotional objectives and strategies of the firm; organization of advertising function; media selection and evaluation; psychological aspects; new developments such as use of computer and mathematical models.
- 332 SALES MANAGEMENT (4)
Prerequisite: BA 330. Nature of personal selling and retailing; emphasis on management of sales personnel and the merchandising effort.
- 370 LAW OF COMMERCIAL TRANSACTIONS I (4)
Prerequisite: Acctg 251. Legal principles underlying the law of contracts, personal property and secured transactions.
- 371 LAW OF COMMERCIAL TRANSACTIONS II (4)
Prerequisite: BA 370. Legal principles underlying the law of agency, negotiable instruments, sales, partnerships, and corporations.
- 375 QUANTITATIVE METHODS I (4)
Prerequisites: Math 250, 251, 252. Quantitative methods used in research, analysis and decision making: estimation, inference, hypothesis testing, analysis of variance, regression correlation, time series, index numbers, forecasting, and Bayesian decision theory.
- 376 QUANTITATIVE METHODS II (4)
Prerequisites: Math 250, 251, 252. (Note: BA 375 not required for BA 376.) Quantitative methods used in research, analysis and decision making: critical path, optimal path, queuing, production and inventory decision models, and linear programming, dual, non-linear and dynamic programming.
- 400 SPECIAL PROBLEMS IN BUSINESS ADMINISTRATION (1-5)
Prerequisite: 20 credits in business administration and economics and prior consultation with instructor.
- 401 ORGANIZATIONAL BEHAVIOR (4)
Prerequisites: BA 301, 303. Analysis of individual and group behavior in the organizational setting with special emphasis on assessing and improving organizational effectiveness.
- 402 SEMINAR IN ORGANIZATIONAL THEORY (4)
Prerequisite: BA 301. A seminar devoted to the analysis of current research: measuring organizational effectiveness, planning, leadership, patterns, and current problems.
- 403 MANAGEMENT INFORMATION SYSTEMS (3)
Prerequisites: BA 301, CS 110. Analysis of the decision process and the information requirements of decision-makers. Surveys the application of computers to contemporary business education, and governmental information systems.
- 404 ORGANIZATIONAL DEVELOPMENT (4)
Prerequisites: BA 301, 303. Analysis of current research and application to planned organizational change and internal training techniques.
- 407 BUSINESS LOGISTICS (4)
Prerequisites: BA 302, 330. Study of the total flow of materials through an organization, from acquisition of raw materials to delivery of a finished product to the ultimate user.

Business Administration

- 408 THE ROLE OF BUSINESS IN AMERICAN SOCIETY (3)
Prerequisite: BA 308. Development of American capitalism and its legal, philosophical, and ethical foundations.
- 411 SMALL BUSINESS FINANCE (4)
Prerequisite: BA 311. Financial operations of small businesses with emphasis on capital sources and proposal development. Case studies of successful enterprises will be used to demonstrate potential scope of entrepreneurial activity.
- 412 INVESTMENTS (4)
Prerequisite: BA 311. Security investment, analysis and forecasting of security markets; industry studies, portfolio construction, security selection; corporate government and revenue bonds; efficient portfolio management for different classes of institutions and individuals.
- 413 CAPITAL BUDGETING (4)
Prerequisite: BA 311. Techniques of assessing the desirability of capital investment options are presented along with other factors relating to the investment decision. Theory is balanced with case studies to provide the student with practical knowledge.
- 414 FINANCIAL INSTITUTIONS AND MARKETS (4)
Prerequisite: BA 311 or Econ 311. Analysis of the structure and functions of the money and capital markets; the saving investment process and financial intermediaries; supply and demand for loanable funds and the level and structure of interest rates.
- 415 BUSINESS FINANCIAL POLICY (4)
Prerequisite: BA 311. Case study analysis is used to provide an understanding of major financial policy issues such as capital structure determinations, use of surplus earnings and approaches to short-term financing.
- 416 RISK AND INSURANCE (3)
Prerequisite: senior standing. Analysis of personal and organizational risk and the means by which such risk may be minimized, transferred or otherwise managed to avoid serious financial loss.
- 417 SPECIAL INTEREST SEMINARS IN BUSINESS ADMINISTRATION
- 418 SECURITIES ANALYSIS (3)
Prerequisite: BA 311 or equivalent. Analysis of investment characteristics of securities issued by private and public organizations.
- 419 REAL ESTATE (3)
Prerequisite: BA 271 or equivalent. Real estate law; government regulation of real estate use; development, marketing and financing of commercial and residential real estate.
- 421 PROBLEMS IN PERSONNEL ADMINISTRATION (3)
Not open to business administration majors or to students who have taken BA 322 or 422. Problems of wage and salary administration, employee rating, and employee selection. Summer only.





- 422 **COMPENSATION ADMINISTRATION AND THEORY (4)**
Prerequisites: BA 301, 322. Analysis and examination of theories, models, and procedures required to develop compensation and reward systems in organizations. Economic, psychological, and social elements of compensation will be considered. Determination of compensation structures and differentials, forms of compensation and reward, compensation levels will be examined.
- 425 **INDUSTRIAL RELATIONS ADMINISTRATION (4)**
Prerequisite: BA 322. Cases, lectures, and collective bargaining simulation are used to develop administrative skill in dealing with union-management relations. Subjects covered are: nature of unions, institutional forces conditioning collective bargaining practices, and administrative practices dealing with unions.
- 426 **CURRENT ISSUES IN PERSONNEL AND INDUSTRIAL RELATIONS (4)**
Prerequisite: BA 322. Seminar dealing with the analysis of current problems in policy and practice used in personnel and industrial relations administration.
- 427 **SYSTEMS OF DISPUTE SETTLEMENT (4)**
Prerequisite: BA 322 or Econ 325. An investigation into public and private dispute settlement systems, particularly in labor relations, commerce, and public issues. Emphasis will be on quasi-judicial and nonjudicial systems, and on non-judicial methods including arbitration, fact-finding, and mediation.
- 428 **SELECTION AND TRAINING IN BUSINESS AND INDUSTRY (5)**
Prerequisite: BA 322. Examines organizational objectives as related to selecting and training human resources in business and industry. Receiving emphasis are selection and training models; selection, training, and assessment methods; criterion problems and evaluation methodologies.
- 430 **MARKETING RESEARCH (5)**
Prerequisites: BA 330, 375 or 376. Marketing problems posed by executive decision; techniques applicable to product selection, advertising and motivation research; research methodology; research design and decision models in marketing; individual research projects.
- 433 **MARKETING MANAGEMENT (4)**
Prerequisites: BA 330, 375 or 376. Study of the objectives, strategies and organization of marketing departments in large and medium-sized firms. Emphasis upon operating control and evaluation.
- 450 **BUSINESS TAX PLANNING (3)**
Prerequisite: Acctg 350. Consideration of the impact of federal, state of Washington and local government taxation upon business organization, location and operation. Comparable Canadian federal and provincial taxes are surveyed.
- 471 **GOVERNMENT REGULATION OF BUSINESS OPERATIONS (3)**
Prerequisite: BA 271 or 370. Analysis of the impact of federal, state and local government regulation upon business operation.
- 477 **BUSINESS SIMULATION (4)**
Prerequisites: BA 302, 376 or equivalents. An introduction to simulation techniques as they apply to business and economics. Basic concepts, applications and problems associated with use of simulation.
- 480 **INTERNATIONAL BUSINESS (4)**
Prerequisites: BA 308, 311, 330. A seminar in the special problems and issues which arise in the conduct of international business.
- 495 **BUSINESS POLICY (4)**
Prerequisites: 20 upper-division business administration credits, including BA 302, 311, 330. 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. The course is intended to integrate and build upon junior-level functional area course work.
- 497 **FIELD STUDY IN OPERATIONS MANAGEMENT (4)**
Prerequisites: BA 302 and permission of instructor. Field-based study of theory applied to current operating problems.



CHEMISTRY

College of Arts and Sciences

The programs of study offered by the Chemistry Department are diverse and challenging, and possess a combination of important features which provide unusual benefits to the student. These include:

- A wide variety of accredited programs designed to meet virtually all career needs and flexible enough to respond to changing and developing needs.
- Provision for transfer students to complete degree programs without loss of time or credit.
- A faculty committed to quality undergraduate education.
- Close student-faculty contact and relatively small classes.
- Direct access to modern laboratory equipment and instrumentation.
- Opportunity for research work at the junior/senior level under the direction of a faculty adviser.

THE PROGRAM AND CAREER OPPORTUNITIES

The Chemistry Department offers three basic degree programs: Bachelor of Arts in Education, Bachelor of Arts, and Bachelor of Science. Within each of these programs, the student has considerable freedom in selection of courses and options, but all three have a common core of study:

- One year of general chemistry and one year of college-level calculus (first year)
- One year of organic chemistry, one year of college physics and one quarter of analytical chemistry (second year)
- One year of physical chemistry (third year)

This core provides the basis of a chemist's education and 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 teaching at the secondary level, positions in industry or government, or further study at the graduate level. Detailed descriptions of each of these degree programs and course descriptions are given on the following pages.

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 quarter or one semester of analytical chemistry
- One year of organic chemistry
- One year of college-level calculus
- One year of college-level physics

The Bachelor of Arts in Education provides three distinct program emphases including concentrations in chemistry-biology, chemistry-mathematics, and chemistry-physics as well as straight preparation in chemistry. 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. The *Bachelor of Arts* and *Bachelor of Science* programs are designed for students interested in industrial or governmental careers or graduate study. The two programs are similar except that the B.S. program provides greater depth and, with proper choice of electives, leads to a degree approved by the American Chemical Society.

THE FACULTY

The Chemistry Department faculty of 15 members is young, vigorous and strongly committed to providing the undergraduate student with a quality, personalized education. All department members hold the Ph.D. degree and most are engaged in experimental research, primarily with junior and senior level chemistry majors who have elected to pursue research study. In addition to providing instruction and academic advisement, faculty members are readily available to work with individual students on career plans and academic and personal problems.

- DONALD M. KING (1966) Chairman. Associate Professor. BS, Washington State University; PhD, California Institute of Technology.
- MARION BESSERMAN (1952) Associate Professor. BS, University of Washington; MS, Purdue University; PhD, University of Washington.
- JOSEPH R. CROOK (1970) Associate Professor. BS, University of Nevada; PhD, Illinois Institute of Technology.
- LOWELL P. EDDY (1957) Associate Professor. BS, MS, Oregon State University; PhD, Purdue University.

- GEORGE A. GERHOLD (1969) Professor. BS, University of Illinois; PhD, University of Washington.
- GEORGE S. KRIZ, JR. (1967) Associate Professor. BS, University of California, Berkeley; PhD, Indiana University.
- **GARY M. LAMPMAN (1964) Professor. BS, University of California, Los Angeles; PhD, University of Washington.
- JOHN A. MILLER (1966) Associate Professor. BS, Oregon State University; PhD, Iowa State University.
- EDWARD F. NEUZIL (1959) Professor. BS, North Dakota State College; MS, Purdue University; PhD, University of Washington.
- DONALD L. PAVIA (1970) Associate Professor. AB, Reed College; MS, PhD, Yale.
- *SALVATORE F. RUSSO (1968) Associate Professor. BA, Wesleyan University; PhD, Northwestern University, Evanston.
- JOHN A. WEYH (1968) Associate Professor. BA, College of Great Falls; MS, PhD, Washington State University.
- JOHN C. WHITMER (1969) Professor. BS, University of Rochester; MS, PhD, University of Michigan.
- MARK L. WICHOLAS (1967) Associate Professor. AB, Boston University; MS, Michigan State University; PhD, University of Illinois.
- H. WILLIAM WILSON (1966) Professor. BSc, University of Alberta; PhD, University of Washington.

Research Associate

- James D'Argaville Clark (1964)
BSc, Capetown; BSc, University of London; PhD, Institute of Paper Chemistry, Lawrence College.

FACILITIES

The Chemistry Department occupies approximately one-third of Haggard Hall which was built in 1960. The facility is shared with the Department of Biology and the Science Education Program; the Mathematics/Computer Science and Physics/Astronomy departments are housed in a building directly adjacent, with the Environmental Studies Center building located nearby.

The laboratory equipment and instrumentation held by the department is modern, complete and readily available to students engaged in the study of chemistry. In addition, special instrumentation held by other departments is accessible to chemistry faculty and students alike.

INFORMATION

Prospective students desiring additional information on Chemistry Department programs, options or facilities are urged to write directly to Chairman, Department of Chemistry, Western Washington State College, Bellingham, Washington 98225. Application information should be requested from the Director of Admissions of the College.

*On Sabbatical Leave 1977-78

**On Sabbatical Leave 1978-79

Chemistry

Students planning to major in chemistry or to begin university transfer programs involving chemistry courses are advised to consult the department at the beginning of the first year to arrange for proper sequence of courses. Advice of the department should be sought in the choice of options in the general education science requirements.

BACHELOR OF ARTS IN EDUCATION

Major — Senior High School

45 credits plus Supporting Courses

- Chemistry 121, 122, 123, 333
- Chemistry 351, 352, 353, 354, 461, 462, 463
- Phys Sci 492
- Supporting courses: one year college physics and Math 121, 124, 125

COMBINED MAJOR — CHEMISTRY-BIOLOGY

Major Concentration 92-96 credits

- Chemistry 121, 122, 123, 251, 333, 411, 412
- Biology 120 or 101, 210, 321 or 370, 325
- 10 credits from Biology 310 or 345, 311, 312
- Biology 485 or General Science 405
- Physical Science 492 and Biology 493
- Chemistry 371 or Biology 323
- Mathematics 220 and Physics 131, 132, 133 (or 231, 331, 332)

NOTE: This program is specifically designed for students who wish to be recommended for teaching competence in both biology and chemistry. Students entering this curriculum are advised that this combination major contains more credits than the Bachelor of Arts in Education in either single discipline. Depending upon options chosen, the overall student program may involve more than 180 credits.

Teaching Competence

Recommendation for teaching competence with the Chemistry-Biology major concentration normally requires completion of the program with a grade point average of 2.50 or better in the chemistry and in the biology courses.

COMBINED MAJOR — CHEMISTRY-MATHEMATICS

Major Concentration

78 credits plus Supporting Courses

This concentration provides depth leading to recommendation for teaching competence in both

areas. It satisfies requirements for both a major and a minor.

- Chemistry 121, 122, 123, and 461, 462, 463 or 411, 412, 413
- 9-11 credits in chemistry to include a minimum of five credits in organic chemistry under departmental advisement
- Phys Sci 492
- 40 credits in mathematics to include methods courses under departmental advisement
- Supporting courses: one year college physics

COMBINED MAJOR — CHEMISTRY-PHYSICS

Major Concentration

73 credits plus Supporting Courses in Mathematics

This concentration provides depth leading to recommendation for teaching competence in both areas. It satisfies the requirements for both major and minor.

- Chemistry 121, 122, 123
- Chemistry 461, 462, 463 or 411, 412, 413
- 9-11 credits in chemistry including five credits in organic chemistry under departmental advisement
- Physics 225 or 355, 231, 331, 332, 381, 371 or 441
- 8 credits in physics under departmental advisement
- Phys Sci 492
- Supporting courses: Math 121, 124, 125, 126

Minor 25 credits

Same as Bachelor of Arts minor below.

Extended Minor 35-37 credits

- Chemistry 121, 122, 123, 461, 462, 463 (or 411, 412, 413), Phys Sci 492
- 6-8 credits under departmental approval from Chemistry 251, 333, 351, 352, 353, 354, 441

To obtain minor approval a minimum of four credits of those required must be taken in chemistry at Western Washington State College under chemistry departmental advisement.

Teaching Competence

Recommendation for teaching competence in chemistry normally requires completion of one of the above majors or the extended minor with a grade point of 2.5 or better in the chemistry courses.

BACHELOR OF ARTS DEGREE*Major* 56 credits plus Supporting Courses

- Chemistry 121, 122, 123, 333, 351, 352, 353, 354, 355, 461, 462, 463, 464, 465, 434 or 441, plus elective
- Supporting courses: one year college physics and Math 121, 124, 125

Minor 24 or 25 credits

- Chemistry 121, 122, 123
- A minimum of 9 or 10 credits under approval of the Chemistry Department from Chemistry 251, 333, 351, 352, 353, 354, 371, 461, 462, 463 (or 411, 412, 413), 482, 483

BACHELOR OF SCIENCE DEGREE*Major Concentration* 110 credits

(Satisfies both the major and minor.)

- Chemistry 121, 122, 123, 333
- Chemistry 351, 352, 353, 354, 355
- Chemistry 434, 441, 461, 462, 463, 464, 465
- Supporting courses: Physics 231, 331, 332, Math 121*, 124, 125, 126
- Electives, selected under departmental advisement in chemistry, biology, physics and mathematics to total 110 credits including above required courses

Note: Western Washington State College is approved by the American Chemical Society for certification of students who complete a program which meets the objectives and guidelines for undergraduate programs in chemistry set by the Society. These objectives and guidelines may be met by including in the Bachelor of Science program Math 301 or Math 201 and 202, and a least nine elective credits in chemistry courses numbered 400 and above or in approved courses in biology, computer science, geology, mathematics and physics. At least two of the nine units must be in chemistry laboratory courses and at least six units in courses other than research. In addition, course work in computer science or statistics is strongly recommended as is a reading knowledge of a foreign language (particularly German).

*Five credits less of required courses if student begins sequence with Math 122.

**COMBINED MAJOR
CHEMISTRY-BIOLOGY***Major Concentration* 110 credits

- Chemistry 121, 122, 123, 333, 351, 352, 353, 354, 471, 472, 473, and 411, 412, 413 or 461, 462, 463
- Biology 120, 210, 321, 323, 345, 408, 471
- One year college physics
- Mathematics 124, 125

This program is specifically designed for students who wish to undertake graduate study in either molecular biology or biochemistry.

DEPARTMENTAL HONORS

In addition to the general requirements for all honors students, a chemistry major who wishes to graduate "with honors" must complete Honors 361, 461; upper division chemistry courses -30 credits for an Arts and Sciences major, 25 credits for a Teacher Education major; Chemistry 498; at least 4 credits in Chemistry 396 a, b, c or 496 a, b, c.

GRADUATE STUDY

For concentrations leading to the Master of Education or the Master of Science degrees, see *Graduate Bulletin*.

COURSES IN CHEMISTRY

- 101 CHEMICAL CONCEPTS (4)
Designed for general education purposes for students without high school chemistry. Fundamental topics of chemistry such as: atoms and molecules, periodic table, organic and biochemistry, radioactivity. Applications to selected topics: household and industrial chemistry, energy sources, food additives and other foreign compounds, the environment. Emphasis of the course will vary; consult the class schedule.
- 115 GENERAL CHEMISTRY (5)
Principles and laws of chemistry developed from the properties, structure, and reactions of matter; an abbreviated course in general chemistry for students not requiring Chem 121, 122 in their programs.
- 121, 122, 123 GENERAL CHEMISTRY I, II, III (5 ea)
Prerequisite: Math 103 (may be taken concurrently with Chem 121) or one and one-half years of high school algebra. Each course prerequisite to the next. Scientific measurements; atoms, molecules, and chemical bonding; mole concept and stoichiometry, chemical nomenclature. States of matter, changes of state, solutions, oxidation-reduction, acid-base concepts, chemical kinetics, chemical equilibrium, equilibrium in aqueous solutions; electrochemistry; selected topics such as coordination, nuclear or thermochemistry. Elementary algebra used to express chemical concepts. Laboratory.
- 208 INDUSTRIAL CHEMISTRY (3)
Prerequisite: Chem 115 or 121. Industrial chemistry and chemical technology in the contemporary world.

Chemistry

- 209 INDUSTRIAL CHEMISTRY LABORATORY (2)
Prerequisite: Chem 208 or concurrent. Small scale experiments of industrial processes; field trips to chemical industries.
- 251 ELEMENTARY ORGANIC CHEMISTRY (5)
Prerequisite: Chem 115 or 121. Reactions, nomenclature, and uses of carbon compounds; an abbreviated course in organic chemistry primarily for persons not requiring the Chem 351-354 series.
- 302 CHEMICAL LITERATURE (1)
Prerequisite: Chem 352. Primary, secondary and tertiary sources of published chemical information. Satisfactory/Unsatisfactory grading used in this course.
- 305 GLASS WORKING (1-2)
Prerequisite: permission of instructor. One hour of demonstration and three hours of lab per week. Basic glass working and construction of simple glass apparatus. May be repeated once for credit. S/U grading.
- 307 AUTOMOTIVE CHEMISTRY (3)
Prerequisite: Chem 115. Lectures and laboratory dealing with a variety of chemical subjects pertaining to the construction and operation of motor vehicles. Examples of topics include fuels, lubricants, exhaust emissions and batteries. Laboratory experiments dealing with these topics will be included.
- 308 INTRODUCTION TO POLYMER CHEMISTRY (3)
Prerequisite: Chem 115, Tech 333 or Chem 208. Types of polymers, methods of polymerization, and preparation of important commercial thermoplastic and thermosetting plastics. Addition and condensation polymers are prepared in the laboratory.
- 317 THE CHEMISTRY AND PHYSIOLOGY OF FOREIGN COMPOUNDS (4)
Prerequisites: Chem 251 (or 351) and Biol 101. A detailed consideration of chemical and physiological effects taken from the following categories: mutagens, carcinogens, food additives, antibiotics, vitamins, steroidal hormones, chemical contraceptives, and mechanism of drug action. Normally offered summer quarter.
- 333 INTRODUCTORY ANALYTICAL CHEMISTRY (5)
Prerequisite: one year of general 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.
- 351, 352, 353 ORGANIC CHEMISTRY (4, 4, 3)
Prerequisite: Chem 122; each course prerequisite to the next. Chemistry of carbon compounds with emphasis on structural theory, reactions, and mechanisms.
- 354 ORGANIC CHEMISTRY LABORATORY I (2)
Prerequisite: Chem 352 or concurrent. Techniques of organic chemistry: reactions, separations and syntheses of organic compounds.
- 355 ORGANIC CHEMISTRY LABORATORY II (2)
Prerequisites: Chem 354 and 353 or concurrent. Techniques of organic chemistry: reactions, separations; syntheses and introduction to practical spectroscopy.
- 371 ELEMENTARY BIOCHEMISTRY (4)
Prerequisite: Chem 251. Outlines of structures and metabolisms of carbohydrates, lipids, proteins, and nucleic acids; biochemical functions of vitamins, hormones, and some coenzymes; basic properties of enzymes. Laboratory portion of course illustrates material presented in lecture.
- 396a,b,c HONORS TUTORIAL (2-5 ea)
- 399 SEMINAR IN CHEMISTRY (1)
Prerequisites: 25 credits in chemistry. Presentation and discussion of papers in chemistry. Satisfactory/Unsatisfactory grading used in this course.
- 400 PROJECT IN CHEMISTRY (1-3)
Prerequisite or concurrent: Chem 461 and Chem 333. Students with junior status in chemistry must have and maintain an overall 3.0 g.p.a. in chemistry courses. Permission of instructor required. Individual projects under supervision. Presentation and discussion of projects encouraged. Satisfactory/Unsatisfactory grading used in this course.
- 410 SPECIAL TOPICS (1-3)
Prerequisite: permission of instructor. Specialized lectures on a conference basis for a particular area of interest.
- 411, 412, 413 ELEMENTARY PHYSICAL CHEMISTRY I, II, III (4 ea)
Prerequisites: one year of college chemistry, one year of college physics, Math 124 or 220. (1) Classical thermodynamics including first, second, and third laws; thermochemistry. (2) Chemical equilibria, the phase rule, solutions, colligative properties, and kinetics. (3) Concepts of molecular bonding and structure; gases, liquids, solids, electrochemistry. Three hours of lecture material will be supplemented with problem solving, mathematical review sessions, and laboratory experiments related to lecture material.

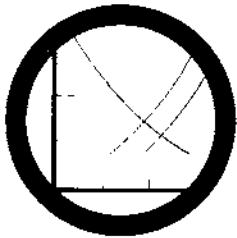


- 417 **ADVANCED TOPICS IN CHEMISTRY (3)**
Prerequisites: Chem 461 (or concurrent) and permission, and any additional prerequisites as listed. A series of courses which are taught on an irregular basis by individual instructors. These courses may be offered subject to enrollment. The student will have to check the class schedule to determine which are being offered in any given quarter. Normally this will be by posted notice in the Chemistry Department.
- 417a Natural Products Chemistry
Prerequisite: Chem 353.
- 417b Organic Reactions
Prerequisite: Chem 353.
- 417c Physical Organic Chemistry
Prerequisites: Chem 353, Chem 463 or concurrent.
- 417d Organic Photochemistry
Prerequisite: Chem 353.
- 417e Stereochemistry
Prerequisite: Chem 353.
- 417f Quantum Chemistry
Prerequisites: Chem 463, Math 125.
- 417g Molecular Spectroscopy
Prerequisites: Chem 463, Math 125.
- 417h Statistical Thermodynamics
Prerequisites: Chem 463, Math 125.
- 417j Theoretical Inorganic Chemistry
Prerequisite: Chem 441.
- 417m Enzyme Chemistry
Prerequisites: Chem 463 or 413, 471.
- 417n Physical Biochemistry
Prerequisites: Chem 463 or 413, 471.
- 417p Chemical Applications of Group Theory
Prerequisite: any one of the following courses—Chem 461, Physics 381, or Physics 391.
- 434 **INSTRUMENTAL ANALYSIS (4)**
Prerequisites: Chem 333; Chem 463 prerequisite or concurrent. Theory and experimental techniques of optical, electrical, and other physical measurements applied to chemical analysis.
- 441 **ADVANCED INORGANIC CHEMISTRY (4)**
Prerequisite or concurrent: Chem 462. Chemical periodicity, bonding and structure of inorganic molecules, transition metal and coordination chemistry, and the chemistry of the non-metallic elements.
- 454 **QUALITATIVE ORGANIC ANALYSIS (4)**
Prerequisites: Chem 123, 353 and 355. Identification and characterization of organic compounds by chemical and spectroscopic methods.
- 461, 462, 463 **PHYSICAL CHEMISTRY (4, 4, 3)**
Prerequisites: one year of college physics, Math 125, and one year of general chemistry; each course prerequisite to the next. Atomic and molecular structure, states of matter, solutions, chemical thermodynamics and equilibria, chemical kinetics, and electro-chemistry.
- 464, 465 **PHYSICAL CHEMISTRY LABORATORY (2 ea)**
Prerequisites: Chem 333 and 461, 462, 463; Chem 464 and 465 may be taken concurrently with Chem 462 and 463 respectively. Experiments designed to illustrate some concepts and techniques of physical chemistry; also formal report writing.
- 471, 472 **INTRODUCTORY BIOCHEMISTRY (3, 3)**
Prerequisites: Chem 123, 353 or concurrent, and Biol 101 or 120. Chem 471 prerequisite to Chem 472. Chemistry of carbohydrates, proteins, nucleic acids, and lipids; intermediary metabolism of these substances; reaction mechanisms leading to biosynthesis of various compounds of biological importance.
- 473 **INTRODUCTORY BIOCHEMISTRY LABORATORY (2)**
Prerequisites: Chem 123, 354 and Chem 472 or concurrent. Analysis of carbohydrates, amino acids, proteins, lipids, and nucleic acids by means of current techniques: isolation and purification of enzymes and measurement of enzyme kinetics.
- 482 **NUCLEAR CHEMISTRY (3)**
Prerequisites: Chem 123, Physics 133 or equivalent, and Math 125. Theoretical and applied nuclear and radio-chemistry.
- 483 **NUCLEONICS LABORATORY (2)**
Prerequisite: Chem 123 or Physics 133 or 231. General experimental techniques in nuclear and radiochemistry for chemistry, biology, geology and physics majors.
- 496a,b,c **HONORS TUTORIAL (2-5 ea)**
- 498 **RESEARCH PROJECT IN CHEMISTRY (6: 3 in each of two successive quarters)**
Prerequisite: permission of instructor. Investigation of a problem in chemistry under departmental sponsorship and supervision. The project must extend over a minimum of two quarters with credit granted after the presentation of an oral report at a seminar and submission of an acceptable written report. Satisfactory/Unsatisfactory grading used in this course.
- 510 **SPECIAL TOPICS (1-3)**
Prerequisite: permission of instructor. Specialized lectures on a conference basis for a particular area of interest.
- 511 **ADVANCED LABORATORY METHODS (1-3)**
Prerequisite: Chem 463. Specialized laboratory on a conference basis for a particular area of interest. May be repeated for credit.
- 517 **ADVANCED TOPICS IN CHEMISTRY**
These courses are offered on an irregular basis by individual instructors.
- 517a Chromosomal Proteins and Chromatin Structure (1)
Prerequisite: Chem 471. Seminar course dealing with the recent literature on chromatin structure with particular emphasis on function of histones and protamines. May be repeated for credit.
- 517b Stereochemistry (3)
Prerequisites: Chem 461 (or concurrent) and Chem 353. Stereochemistry of organic molecules including such topics as optical activity, chirality, resolution methods, stereochemistry of cyclic compounds, conformational analysis, and optical rotatory dispersion.
- 517c Organic Photochemistry (3)
Prerequisites: Chem 353 and 461 or permission of instructor. Topics include: photochemical reactions, rearrangements, mechanisms; the nature of photophysical processes and electronically excited states; energy transfer; photochemical kinetics; and orbital symmetry considerations (Woodward-Hoffman rules).
- 517d Chemical Applications of Group Theory (3)
Prerequisite: a rudimentary knowledge of quantum mechanics obtained from any one of the following: Chem 461 or Physics 381 or Physics 391. The use of mathematical group theory and symmetry arguments for solving problems in chemical bonding, quantum mechanics and molecular spectroscopy.
- 531 **SPECIAL TOPICS IN ANALYTICAL CHEMISTRY (3)**
Prerequisites: Chem 434 and 463. Special methods of separation; acid-base relationships in non-aqueous solvents; chromatography, coulometric and potentiometric methods; determination of organic functional groups, micro-analytical operations and methods. May be repeated for credit.

Chemistry

- 541 THEORETICAL INORGANIC CHEMISTRY (3)
Prerequisites: Chem 441 and 463 or permission of instructor. Crystal field, ligand field, and molecular orbital approaches to the bonding in inorganic compounds; electronic and vibrational spectra, magnetic behavior, stereochemical ligand arrangement of inorganic complexes.
- 551 PHYSICAL ORGANIC CHEMISTRY (3)
Prerequisites: Chem 353 and 463 or permission. Modern concepts of physical organic chemistry and their use in the elucidation of reaction mechanism, relation of structure to chemical reactivity.
- 552 CHEMISTRY IN NATURAL PRODUCTS (3)
Prerequisite: Chem 353 or permission. Isolation, structure, synthesis, biosynthesis and photochemistry of selected classes of natural products.
- 553 ORGANIC REACTIONS (3)
Prerequisite: Chem 353 or permission. Organic chemical reactions as applied to problems in organic synthesis.
- 561 ADVANCED PHYSICAL CHEMISTRY (3)
Prerequisite: Chem 463 (equivalent or concurrent) and Math 125. Statistical treatment of thermodynamics and principles of chemical kinetics.
- 562 THEORETICAL CHEMISTRY (3)
Prerequisites: Chem 463 and Math 125. Molecular orbital theory and its application in bonding of complex molecules.
- 563 MOLECULAR SPECTROSCOPY (3)
Prerequisites: Chem 463 and Math 125. Principles of modern spectroscopy.
- 571 GENERAL BIOLOGICAL CHEMISTRY (3)
Prerequisites: Biol 101 and Chem 353 and 363 or 463. The structures and functions of cells and tissues, chemical and physico-chemical basis of structures of amino acids, proteins, nucleic acids, carbohydrates and other biologically important compounds; general metabolism of carbohydrates, lipids, and proteins.
- 572 CHEMISTRY OF BIOLOGICAL PROCESSES (3)
Prerequisite: Chem 571. Biosynthesis and chemical pathways of metabolism of amino acids, proteins, nucleic acids, lipids, vitamins, and porphyrins; mechanism of biochemical reactions.
- 573 ENZYME CHEMISTRY (3)
Prerequisites: Chem 413 or 463 and Chem 471 or 571. Normally offered in alternate years. Preparation and measurement of activities of enzymes; mechanism of enzyme reactions; properties of individual enzymes and coenzymes.
- 574 PHYSICAL BIOCHEMISTRY (3)
Prerequisites: Chem 413 or 463 and 471 or 571, or permission of instructor. Normally offered in alternate years. Quantitative methods applicable to the study of macromolecules, particularly in systems of biological interest.
- 581 ADVANCED NUCLEONICS (3)
Prerequisites: Chem 482 or Physics 382. Advanced techniques of nuclear chemistry and nuclear physics; nuclear reaction, nuclear fission and involved multi-particle detection and scattering experiments.
- 695 SEMINAR (1)
Presentation of contemporary subjects in chemistry. Satisfactory/Unsatisfactory grading used in this course.
- 696 INTERNSHIP IN CHEMISTRY IN THE COMMUNITY COLLEGE (12)
An in-depth experience in instruction at a selected community college; also provides an exposure to the philosophy of the community college. S/U grading only.
- 698 RESEARCH (3)
Research in chemistry under faculty direction terminating in a master's thesis. Satisfactory/Unsatisfactory grading used in this course.





ECONOMICS

College of Business and Economics

Economics is one of the crucial and exciting fields among the social sciences. Its most challenging task is the study of how to best use natural and man-made resources in the satisfaction of human wants. Since most of mankind's activities involve economic considerations, we can say that economics is the study of one of the fundamental aspects and determining forces of human life. Today, more than ever, the problems agitating our society are predominantly economic. The concerns of inequality, discrimination, pollution, the energy crisis, and growth are heavily economic. Their solutions, too, will draw heavily on economics. Whether as intelligent citizens or as professional economists, we need the perspective of economics if we are going to understand and deal with the realities of life in the late twentieth century.

The areas that economists devote most of their analytical skills to are the processes of production, distribution and consumption of commodities and services. The knowledge of why certain products

are produced or consumed, why shortages occur, and what the repercussions of a certain change in production or consumption might be, may all be essential for economic decision-making. In this context, the study of how and why individuals make choices from among alternative courses of action in production and consumption, for example, involves an analysis of man's economic motivation. Similarly, a knowledge of income distribution trends and a theoretical as well as humanistic understanding of the social and economic repercussions of various patterns of distribution can move a society to political action. It is the economist who most typically provides the data, statistical methods and theories to help in the analysis of these basic problem areas. A vast number of economic problems derive directly from these areas of concern. Are depressions important? What about inflation and unemployment? Should we worry about poverty and income inequality? Is stagnation our biggest problem, or is growth an even bigger one? The analysis and tools

Economics

of the economist convert these issues to more than hot air. The study of economics produces the educated modern citizen as well as the trained professional who can intelligently understand and cope with these problems.

The field of economics consists of many areas of interest and specialization where the concerns and methods of economics are selectively applied. For example, the historical area deals with the history of the development of different economies and economic ideas. The area of economic development analyzes the performances of both developed and "backward" economies. Some economists specialize in the examination of taxation and government spending, banking and money supply, sophisticated mathematical methods, government policies, and international economic problems. Still others engage primarily in analyzing the performance of a nation's total economy, or only that of a small unit like a business firm.

Since economics is a discipline involved in such far-reaching concerns of modern society, economists are not only employed as teachers and researchers in the nation's colleges and universities, but also at all levels of government, in the nation's banking and business institutions, in labor unions, and in business firms.

The economist's tools consist particularly of an exposure to economic ideas and analysis, of statistical methods, and of computer techniques. While many employment opportunities are available to the college graduate, the person who wishes to pursue a career as a professional economist should plan to do some graduate study.

The economics program provides two options under the Bachelor of Arts degree. Option II requires a minor and is designed to provide a liberal arts degree with individualized coursework under advisement. Option I is designed to provide the student not only with a theoretical and substantive background in economics, but also includes the appropriate quantitative skills. With the latter option, graduates have found employment at various levels in public and private organizations; government, business, and industry. It also provides excellent preparation for continued study at the graduate level. Students must consult with an adviser prior to the selection of Option I or Option II as their major program.

ECONOMICS FACULTY

- K. PETER HARDER (1970) Chairman.
Associate Professor. BA, University of Puget Sound;
MA, PhD, University of Nebraska.
- ROBERT P. COLLIER (1976) Professor and Dean of the
College of Business and Economics. BA, Reed
College; PhD, Stanford University.
- RICHARD FRYE (1975) Assistant Professor of
Economics and Huxley College. BS, United States
Naval Academy; PhD, University of Rhode Island.

- ERWIN S. MAYER (1953) Professor. AB, Hunter College;
PhD, University of Washington.
- MICHAEL K. MISCHAIKOW (1964) Professor. BA,
School of Commerce and Finance, Bulgaria; MBA,
Hochschule f. Welthandel, Austria; MA, PhD, Indiana
University.
- HOWARD E. MITCHELL (1955) Professor. BA, Whit-
worth College; MA, PhD, University of Washington.
- DAVID M. NELSON (1977) Assistant Professor. BA,
Whitworth College; MA, PhD, University of Oregon.
- ALLAN G. SLEEMAN (1977) Assistant Professor. BS,
Simon Fraser University.
- THOMAS F. TABASZ (1977) Associate Professor. BA,
University of California; MA, University of
Washington; PhD, State University of New York.

Transfer students should contact the department adviser about their major prior to registering so as to assure that they enter the sequence correctly and receive departmental evaluation of coursework completed at other institutions.

BACHELOR OF ARTS

Major 85-90 credits

Basic Core

- Econ 201, 202, 301, 302, 403
- Option I or Option II

Option I

- Econ 307, 407
- One course from Econ 381 (or Hist 360),
Econ 385
- Econ 311
- Math 250, 251, 252
- BA 375
- Geog 207
- Choose one of the following: (a) Acctg 251,
252, or (b) 8 credits from mathematics or
computer science (other than Math 100, 121,
124, 151, 250, 251, 252) or (c) 8 credits from
philosophy (other than Phil 111)
- 20 elective credits in economics under
advisement, not otherwise required

This program is intended to serve the needs of those students who intend to pursue further study in economics or who are seeking professional preparation in economics.

Option II

- 43 elective credits in economics must be taken
under advisement. Up to 14 credits in such
courses as Math 250, 251 or 252 may be
included in these elective hours
- A minor in an area to be chosen by the
student under advisement

This option is intended to serve the needs of those students seeking a less specifically defined as well as less professionally oriented major than offered under Option I. It is particularly suitable for the

student who has wide-ranging interests in the liberal arts. This option must be accompanied by a minor selected under advisement.

*Combined Major—
Economics and Mathematics* 100 credits

This concentration for students who wish considerable depth in both areas satisfies both a major and a minor for the B.A. degree.

- Economics 201, 202, 301, 302, 311
- Acctg 251, 252, 350
- 12 upper-division credits in economics and business administration selected under departmental advisement
- Economics 381 (or History 360)
- Math 121, 124, 125, 126, 201, 202, 241 (Math 301 may be substituted for 201, 202)
- Math 341 and 342; or 441, 442, 443
- Math 201 may be taken concurrently with Math 125; Math 202 may be taken concurrently with 126
- Computer Science 110 or 210
- 8 credits under advisement in upper-division courses in mathematics/computer science

*Combined Major—
Economics and Accounting* 110 credits

- Econ 201, 202, 301, 302, 311, 381 or 385, 403
- 14-15 additional credits in upper-division economics courses under advisement
- Acctg 251, 252, 350, 352, 353
- 8 additional credits in upper-division accounting courses under advisement
- Business Administration 301, 303, 311, 375 or 376
- Four additional credits in upper-division business administration courses under advisement
- Math 250, 251, 252*

Minor 25 credits

- Economics 201, 202
- Additional courses selected under departmental advisement; at least 10 credits must be at upper-division level

BACHELOR OF ARTS IN EDUCATION

Minor 23-25 credits

(Alternate minor for other than business education majors for teaching competency recommendation.)

*Students who plan to pursue graduate study should substitute Math 124, 125, 201, 202 for 250 and 251.

- Economics 201, 202; Acctg 251 or BA 201
- 10 credits in upper-division courses selected under prior advisement

DEPARTMENTAL HONORS

In addition to the general requirements for all honors students, an economics major who wishes to graduate "with honors" must complete Economics 491h; a reading knowledge of a foreign language and two years of mathematics; must attain a grade average of 3.5 in upper-division economics courses; must pass a comprehensive examination in economics.

GRADUATE STUDY

For concentrations in economics leading to the Master of Arts degrees, see the *Graduate Bulletin*.

PREREQUISITES

Prerequisites for a particular course indicate its level of analysis and tool requirements. The exceptional student who feels he has already acquired these skills elsewhere, or can readily acquire them, must secure special permission for enrollment from the instructor.

COURSES IN ECONOMICS

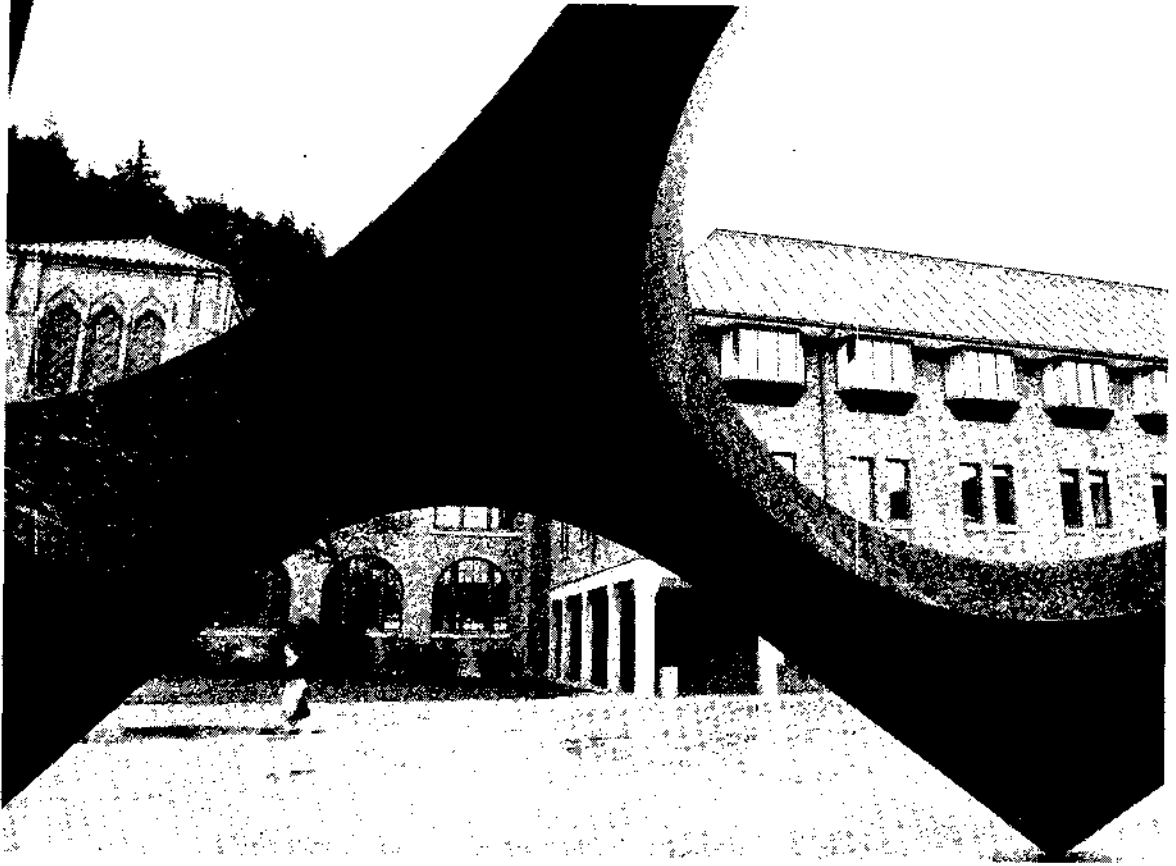
- 190 CURRENT ECONOMIC ISSUES (3)
Examination of the major economic problems of our time. Designed to introduce the general student to the most visible economic aspects of modern society, such as inflation, economic growth and recession, pollution, unemployment, etc.
- 201 PRINCIPLES OF ECONOMICS I. INTRODUCTION TO MACRO-ECONOMICS (5)
An overview of the modern economy as a system for dealing with the problem of scarcity, with particular emphasis on the market economy. An evaluation of successes, deficiencies, and possible alternative futures.
- 202 PRINCIPLES OF ECONOMICS II. INTRODUCTION TO MICRO-ECONOMICS (4)
Analysis of the operation and decision making of economic units in a market economy: various competitive conditions; supply, demand, resource allocation, shortages, controls, social costs, and social benefits.
- 301 NATIONAL INCOME ANALYSIS (4)
Prerequisites: Econ 201 or Gen St 200 and permission of instructor. Determinants of the level of income, employment and output in the economic system.
- 302 INTERMEDIATE ECONOMIC THEORY (4)
Prerequisites: Econ 202; Math 251. The theory of pricing under conditions of perfect and imperfect market structure; relation of demand, production, costs and prices; functional income distribution; general equilibrium theory.

Economics

- 306 **MANAGERIAL ECONOMICS (4)**
Prerequisites: Econ 202, Acctg 350, Math 251, BA 375. Application of economic principles to the decision-making process. Demand, costs and market structure and their relation to pricing, product choice, capacity and profit level decision making.
- 307 **ECONOMIC RESEARCH (3)**
Prerequisites: Econ 301, 302. Examines research methods and methodology used in economic and business research with emphasis on those tools needed to develop and complete research projects. S/U grading.
- 311 **MONEY AND BANKING (4)**
Prerequisites: Econ 201 or Gen St 200 and permission of instructor. Nature and functions of money, monetary institutions, instruments of monetary policy and their influence on economic activity through changes in money and credit.
- 325 **ECONOMICS OF LABOR (5)**
Prerequisites: Econ 201, 202. The economics of the labor market; development and functioning of labor unions and collective bargaining.
- 336 **ECONOMIC ANALYSIS AND INDUSTRIAL MANAGEMENT (5)**
Prerequisite: Math 100 or equivalent. Introduction to structure of markets, production and price theory; application to organization management, and operation of business enterprise. Not applicable to departmental majors.
- 381 **AMERICAN ECONOMIC HISTORY (5)**
Prerequisites: Econ 201 and 202, or Gen St 200 and permission of instructor. American economic development from seventeenth century to present; emphasis on resource endowment and evolving social and economic institutions; role of government in this development.
- 383 **ENVIRONMENTAL ECONOMICS (4)**
Prerequisite: Econ 202. Economic analysis of environmental quality as a public good. Theory of economic efficiency, the "optimal amount" of pollution; welfare criteria for resource allocation. Implications of the no-growth economy. Listed jointly as Huxley 383.
- 385 **THE RISE OF CAPITALISM (4)**
Prerequisites: Econ 201 or 202, or Gen St 200 and permission of instructor. Evolution of economic institutions in Europe 800-1800; growth of capitalistic market societies.
- 388 **DISCRIMINATION AND RESOURCE UTILIZATION (4)**
Prerequisites: Econ 201 and 202, or Gen St 200. The effects of racial and other forms of discrimination on resource utilization; departures from market norms; policies to alleviate consequences of discrimination.
- 396a,b,c **HONORS TUTORIAL (2-5 ea)**
- 400 **SPECIAL PROBLEMS IN ECONOMICS (2-5)**
Prerequisites: 20 credits in economics and business administration and prior consultation with instructor.
- 402 **WELFARE ECONOMICS (4)**
Prerequisite: Econ 302. Theories of individual and social welfare and criteria of an increase or decrease in social welfare; implications for social welfare of competition, monopoly, the allocation of resources and the distribution of wealth, and the welfare implications of economic growth.
- 403 **THE HISTORY OF ECONOMIC THOUGHT (5)**
Prerequisites: Econ 201 and 202 or Gen St 200. Development of economic thought with emphasis on period following Adam Smith.
- 407 **SENIOR SEMINAR (2)**
Prerequisites: Econ 307, BA 375. Research and presentation of an extended paper on an individually chosen topic with guidance given by instructor.
- 410 **PUBLIC EXPENDITURE AND TAXATION (5)**
Prerequisite: Econ 201. Examines the efficiency, equity and stabilization impacts of public expenditure and revenue programs; emphasis on problems and institutions at the national level.
- 412 **BUSINESS FLUCTUATIONS AND FORECASTING (4)**
Prerequisites: Econ 301 and BA 375. Characteristics and major explanations of the prosperity-depression cycle in business, with major emphasis on forecasting.
- 415 **STATE AND LOCAL PUBLIC FINANCE PROBLEMS (4)**
Prerequisite: Econ 201. Problems and issues in the finance of state and local government services.
- 417 **SPECIAL INTEREST SEMINARS IN ECONOMICS**
See current class schedule for courses offered under this heading.
- 417b **Comparative Industrialization: 19th Century (4)**
Prerequisite: Gen St 200, or Econ 385. Comparative industrialization in the 19th century. Analysis of the forces, patterns, and repercussions of industrialization in several major Western economies.
- 417c **Current Economic Issues (3)**
Prerequisite: Gen St 200 or Econ 201. Examination of current economic issues such as inflation, wage-price control, shortages, pollution, discrimination, and others. (Offered summer quarter only.)
- 417d **Taxation and Education in Washington State (3)**
Prerequisite: Gen St 200 or Econ 201 or equivalent experience. Examination of the system of educational finance in Washington state, and an evaluation of alternative methods.
- 417e **The American Economy (3)**
Examining the structure, operation and performance of the American economic system as an expression of the basic human economic motives, expectations and aspirations of its citizens.
- 425 **LABOR MOVEMENTS IN THE UNITED STATES (3)**
Prerequisite: Econ 201 or Gen St 200. The development of labor movements in the United States from 1800.
- 442 **GOVERNMENT AND BUSINESS (5)**
Prerequisite: Econ 202. Structure of firms and markets and interfirm and interindustry relations. Maintenance of competition by antitrust. Regulation of utilities, communication and transportation. Protective regulation of trade, investment, labor, natural resources and environmental quality.
- 445 **CURRENT TRENDS IN ECONOMICS**
See current class schedule for courses offered under this heading. (May be taken for credit only once in two years.)
- 445a **Trends in Economic Education (3)**
Prerequisite: teaching experience in social studies.
- 445b **Economics in Business Decision Making (3)**
- 461 **INTERNATIONAL ECONOMICS (5)**
Prerequisites: Econ 201 and 202 or Gen St 200 and permission of instructor. International trade and monetary relations and their impact on the domestic economy. Analysis of trade, tariffs quotas, balance of payments, foreign exchange, international financial arrangements and world interdependence.

- 471 **MATHEMATICAL METHODS IN ECONOMICS (4)**
Prerequisite: Conference Course Permit. Offered by arrangement. Representation of economic systems in linear and non-linear models. Optimization (extrema of functions of several variables); existence and stability of equilibrium solutions; constrained optimization (Lagrangian methods). Simple dynamic systems.
- 475 **ECONOMETRICS (4)**
Prerequisite: BA 375. Simple and multiple regression analysis, methods and problems of single equation and simultaneous equation estimation.
- 480 **URBAN ECONOMICS (4)**
Prerequisite: Econ 202. Economic forces behind urbanization. Economic analysis of urban problems, including land use, transportation and environment. Urban public finance; welfare economics and efficient resource allocation. Listed jointly as Huxley 480.
- 482 **REGIONAL ECONOMICS (4)**
Prerequisites: Econ 201 and Geog 207. Problems, resource endowment, and principal policy issues related to economic growth of a region.
- 483 **RESOURCE ECONOMICS (4)**
Prerequisite: Econ 202; Geog 207 recommended. Theories for the efficient allocation of natural resources over time. Benefit-cost analysis as a criterion for public choice. Effects of property rights; distributional considerations and social cost. Listed jointly as Huxley 483.
- 485 **COMPARATIVE ECONOMIC SYSTEMS (4)**
Prerequisite: Econ 201 or Gen St 200. A comparative analysis of the major economic systems; a critical appraisal of underlying philosophies, structures and individual performance.
- 486 **ECONOMIC DEVELOPMENT (4)**
Prerequisites: Econ 201 and 202. Causes and conditions characterizing the process of economic development. An evaluation of alternative approaches toward development policies.
- 491h **HONORS SEMINAR (3)**
- 496a,b,c **HONORS TUTORIAL (2-5 ea)**
- 500 **READINGS IN ECONOMICS (2-4)**
Prerequisite: written permission of instructor. To provide an opportunity for independent study in depth of any topic in the field mutually agreeable to the instructor and the student.
- 501 **SEMINAR IN MACRO-ECONOMIC THEORY (4)**
Prerequisite: written permission of instructor. Advanced macro-economic theory with emphasis on causes of economic instability and long-term changes.
- 502 **SEMINAR IN ADVANCED ECONOMIC ANALYSIS (4)**
Prerequisite: written permission of instructor. Detailed analysis of the market's role in determining resource allocation, production, prices and incomes; general equilibrium theories and dynamics.
- 503 **SEMINAR IN HISTORY OF ECONOMIC THOUGHT (4)**
Prerequisite: written permission of instructor. Critical method in the study of economic doctrines; classical political economy; orthodox tradition in the nineteenth century; its principal critics.
- 505 **SEMINAR IN ECONOMIC HISTORY (4)**
Prerequisite: written permission of instructor. Critical historical study of major economic institutions, their interdependence and contribution to modern society.
- 510 **SEMINAR IN PUBLIC ECONOMICS (4)**
Prerequisite: written permission of instructor. An analysis of the behavior of the public sector and the incidence of its attempts to achieve allocation, distribution and stabilization goals.
- 511 **SEMINAR IN FINANCIAL INSTITUTIONS AND MONEY (4)**
Prerequisite: written permission of instructor. The monetary and financial system; relation of economic theory to monetary policy and economic activity.
- 518 **SEMINAR IN THE THEORIES OF BUSINESS BEHAVIOR (4)**
Prerequisite: written permission of instructor. Evaluation of economic and other theories of the firm with primary emphasis on decision-making processes and responses of businessmen to changes in the environment.
- 525 **SEMINAR IN LABOR ECONOMICS (4)**
Prerequisite: written permission of instructor. Selected topics in the economics of labor markets and the process of collective bargaining.
- 553 **SEMINAR IN ADMINISTRATIVE CONTROLS (4)**
Prerequisite: written permission of instructor. Uses of accounting, statistics, and cybernetics by management in the exercise of planning and controlling functions.
- 561 **SEMINAR IN INTERNATIONAL ECONOMICS (4)**
Prerequisite: written permission of instructor. Detailed analysis of the pure and monetary theories of international trade and their relevance to the modern world.
- 575 **SEMINAR IN QUANTITATIVE ANALYSIS (4)**
Prerequisite: written permission of instructor. Nature, meaning, and application of quantitative techniques used in economic and business research.
- 582 **SEMINAR IN REGIONAL ECONOMICS (4)**
Prerequisite: written permission of instructor. Case studies in regional social accounting, growth and stability, intra- and inter-regional relations; concepts and criteria of regional planning.
- 698 **SEMINAR IN RESEARCH AND WRITING (4)**
Prerequisite: permission of instructor. The development and demonstration of economic research methods and methodology and the design of overall strategies of research, culminating in a research design in a selected research area.
- 699 **THESIS (4-9)**
Prerequisite: written permission of instructor.





EDUCATION

School of Education

DEPARTMENT OF EDUCATION FACULTY

- ARNOLD M. GALLEGOS (1973) Professor of Education and Dean, School of Education. BA, University of the Americas (Mexico City campus); MA, Fresno State College; EdD, University of California, Los Angeles.
- ALDEN L. NICKELSON (1962) Chairman, Professor of Education and Biology. BS, MA, PhD, University of Washington.
- CHARLES M. ATKINSON (1975) Assistant Professor. BA in Ed, MEd, Central Washington State College; EdD, Utah State University.
- HORACE O. BELDIN (1965) Professor. BS, MS, University of Oregon; PhD, Syracuse University.
- THOMAS BILLINGS (1964) Professor. BS, PhD, University of Oregon.
- RICHARD T. BISHOP (1966) Assistant Professor. PhD, University of Chicago; MA, Michigan State University.
- LESLIE BLACKWELL (1968) Associate Professor. BA, Washington State University; MEd, EdD, University of Washington.
- ROBERTA A. BOUVERAT (1970) Assistant Professor. BA, MEd, Western Washington State College; PhD., The Ohio State University.
- DON W. BROWN (1954) Associate Professor. BS, MA, University of Nebraska; EdD, Colorado State College.
- KATHERINE M. CARROLL (1958) Associate Professor. BS, Salem State College; EdM, EdD, Boston University.
- RICHARD J. L. COVINGTON (1970) Associate Professor. BA, Doane College; MEd, Whittier College; EdD, University of California, L.A.
- LEE A. DALLAS (1968) Associate Professor. AB, Gettysburg College; MEd, EdD, Temple University.
- HELEN F. DARROW (1969) Professor. BS, Wilson Teachers College; MA, Northwestern University; MA, University of California, Los Angeles; EdD, Teachers College, Columbia University.
- MARIE D. EATON (1975) Lecturer. BA, Pomona College; MEd, PhD, University of Washington.
- HOWARD M. EVANS (1972) Associate Professor. BS, Eastern Oregon College; MA, EdD, University of Illinois.
- FLORA FENNIMORE (1969) Associate Professor. BA, Mt. Angel College; MA, EdD, Washington State University.
- F. RICHARD FERINGER (1962) Associate Professor of Education. BS, University of Minnesota; EdD, University of California, Los Angeles.
- PAUL FORD (1970) Professor. AB, Dartmouth College; MEd, EdD, Harvard University.
- BURTON L. GROVER (1969) Associate Professor. BS, MA, PhD, University of Minnesota.

- C. MAX HIGBEE (1962) Professor. BA, Simpson College; MS, Washington State University; PhD, University of Iowa.
- F. HERBERT HITE (1968) Professor. BA, MA, College of Puget Sound; EdD, Washington State University.
- PETER J. HOVENIER (1970) Associate Professor. BA, University of California, Santa Barbara; MA, Brigham Young University; MA, PhD, Stanford University.
- HALLDOR C. KARASON (1949) Associate Professor of Education and Philosophy. BA in Ed, Western Washington State College; MA, PhD, University of Washington.
- SAMUEL P. KELLY (1965) Professor of Education and Dean of Graduate Affairs and Research. BA, BA in Ed, MEd, Western Washington State College; PhD, University of Chicago.
- HYUNG-CHAN KIM (1971) Associate Professor of Education/Ethnic Studies. BA, Hankuk University for Foreign Studies; BA, MA, EdD, George Peabody College.
- JOHN J. KNIGHT (1975) Assistant Professor. BA in Ed, Wisconsin State University; MS in Special Ed, Portland State University; EdD, Indiana University.
- GEORGE S. LAMB (1965) Professor. AB, Macalester College; MA, University of Washington; PhD, University of Minnesota.
- ROBERT A. McCRACKEN (1963) Professor. BA, MA, PhD, Syracuse University.
- HOWARD F. MCGAW (1963) Professor of Library Science. BA, Vanderbilt University; MA, BS in LS, George Peabody College for Teachers; EdD, Teachers College, Columbia University.
- STEPHEN C. MARGARITIS (1963) Professor. BA, University of Athens; MA, PhD, University of Southern California.
- DONALD E. MOON (1966) Associate Professor of Technology and Education. BS in Ed, California State College, California, Pa.; MA, Teachers College, Columbia University; EdD, Oregon State University.
- THEODORE A. MORK (1971) Associate Professor. BA, MEd, Western Washington State College; PhD, Syracuse University.
- ROBERT H. PINNEY (1971) Associate Professor. BA, University of Washington; EdD, Stanford University.
- RAY S. ROMINE (1966) Associate Professor. BS, Eastern Montana College; MEd, Colorado State University; PhD, University of Oregon.
- LEONARD SAVITCH (1967) Associate Professor. BS, Pennsylvania State; MA, Teachers College, Columbia University; PhD, University of Washington.
- MAURICE L. SCHWARTZ (1968) Professor of Geology and Education. BS, MA, PhD, Columbia University.
- SY SCHWARTZ (1967) Associate Professor. BS, MS, EdD, Wayne State University.
- RICHARD O. STARBIRD (1962) Professor. BA, Heidelberg College; MA, Columbia University; EdD, Teachers College, Columbia University.
- LARRY E. SWIFT (1970) Associate Professor. BA, MAT, Harvard; JD, University of Washington School of Law; CAS, EdD, Harvard.
- MARIAN J. TONJES (1975) Lecturer. BA, MA, University of New Mexico; EdD, University of Miami.
- JOHN C. TOWNER (1972) Associate Professor. BS, MSE, Wisconsin State University; PhD, University of Minnesota.
- JOHN F. UTENDALE (1972) Associate Professor. BS, University of Alberta; MEd, Eastern Washington State College; EdD, Washington State University.
- PHILIP B. VANDER VELDE (1967) Assistant Professor. BA, Calvin College; MA, PhD, Michigan State University.
- STEWART VAN WINGERDEN (1951) Associate Professor. BA in Ed, Western Washington State College; MA, Colorado State College; EdD, Washington State University.
- MARY W. WATROUS (1957) Professor. AB, University of Nebraska; MA, Gonzaga University; EdD, University of Washington.

- PAUL WOODRING (1939) Distinguished Service Professor of the College. BSEd, Bowling Green State University; MA, PhD, Ohio State University. Honorary degrees: LHD, Kalamazoo College; PhD, Coe College; LittD, Ripon College; LHD, Bowling Green State University; LLD, University of Portland.

PROFESSIONAL STUDIES PROGRAMS

The student has the option of fulfilling requirements of professional studies in one of two ways, as follows:

I. Campus-Based Program

Courses common for all programs:

- Education 310 The Teacher and the Social Order
- Education 411 Foundations of Education (Students may defer Education 411 to the fifth year by substituting for this undergraduate requirement Education 390, Professional Practicum and Seminar, or Education 131, Introduction to Early Childhood Education)
- Psychology 351 Psychology of Human Learning and Instruction

To this common core, the student will add either Elementary Teaching or Secondary Teaching according to choice of teaching level:

Secondary Teaching

- Education 398 Seminar in Secondary Education
- Education 420 Instruction in Secondary Schools
- Psychology 353 Adolescent Psychology
- Psychology 371 Evaluation in the Secondary School
- Education 495 Supervised Teaching, Secondary

Elementary Teaching

- Education 385 Foundations of Reading Instruction
- Psychology 316 Developmental Psychology
- Psychology 372 Evaluation in the Elementary School
- Education 494 Supervised Teaching, Elementary

(Students electing the Professional Concentration for Elementary Teachers will follow variations in this required program. Individual programs are developed from the areas described in the concentration.)

II. Field-Centered Program

The student completes, on campus, Education 310 and either Psychology 316 or 353 (depending on teaching level chosen). Secondary teachers will

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also take Education 398 on campus. The remainder of the professional program is satisfied by Education 491, Laboratory in Preparation of Instructional Programs, and Education 492, Laboratory in Interaction and Evaluation. These are offered in clinical school centers extending over two, or sometimes three, quarters away from the campus.

Students are urged to make an early choice of options. Careful advance planning is essential to the completion of teacher preparation within the normal four-year college program of study.

Consult the Office of Student Teaching, Miller Hall 206, for further information regarding the Field-Centered Program.

SUPERVISED TEACHING

All teacher preparation programs require supervised teaching. The requirement in supervised teaching for the provisional certificate is generally 16 credits, with the exception of Special Education which requires 32 credits. The following conditions apply to these courses in both campus-based and field-based programs.

The student, under advisement, may seek to develop teaching competence in two fields if he has adequate academic background. He may also obtain recommendations for both secondary and elementary levels if he has an appropriate major field and the elementary teaching minor, and undertakes student teaching at both levels either within the 16 credit requirement or by an additional experience. However, two different experiences in the same quarter cannot be arranged.

Prerequisites for Supervised Teaching

- (a) Admission and continued good standing in the professional studies program. (See "Admission to Teacher Education" under School of Education listing.)
- (b) Completion of at least 128 credits.
- (c) Secondary teachers—at least 30 credits in the proposed teaching major with grade average and program acceptable to the department for teaching recommendation. A methods class in the major area is strongly recommended. Completion of Education 310, 398, 420, Psychology 351, 353, 371.*

- (d) Elementary teachers in Program II—completion of Education 310, 385, Psychology 316, 351, 372,* and courses in four areas of the basic core (Elementary minor); recommendation of readiness for supervised teaching from the elementary adviser.
- (e) Elementary teachers in Program III—completion of a sufficient portion of the Professional Concentration to warrant the adviser's recommendation of readiness to undertake supervised teaching.
- (f) A chest x-ray in compliance with state law.

Application for Supervised Teaching

Application for supervised teaching must be filed in January preceding the academic year in which the student intends to do the work. Students will consult with program advisers before making such application. They will indicate a first, second and third choice as to when they wish to begin their field work and as to geographic areas in which placement opportunities are available. It is necessary that the students keep the Office of Field Services (Miller Hall 206) informed of any changes or cancellations so that openings may be made available to other students.

Students planning to enroll in clinical programs or supervised teaching fall quarter are advised that eligibility must be established by the close of spring quarter and that they are expected to begin their work with the fall opening of the public school. These students will register for Education 490 in addition to their other supervised teaching courses.

Completion of application for supervised teaching does not indicate approval or admission to any program. Admission to Elementary, Secondary or Special Education must be granted and continued good standing must be maintained before final assignment can be made in student teaching.

Time Involvement

All work in field programs and supervised teaching is considered full time and normally requires seven clock hours plus class preparation time and seminars. Students may not register for other course work during this time period. Outside work or other demanding commitments, which could affect the quality of work in teaching, must be approved by both the Director of Field Services and the appropriate program adviser.

Placement Locations

Field-based clinical and student teaching programs are available in school districts in Whatcom/Skagit counties and the greater Seattle area. One-quarter

*Students in the field-centered programs satisfy many of these requirements in other ways. Please see adviser.

supervised teaching placements are also made in these locations on a space-available basis.

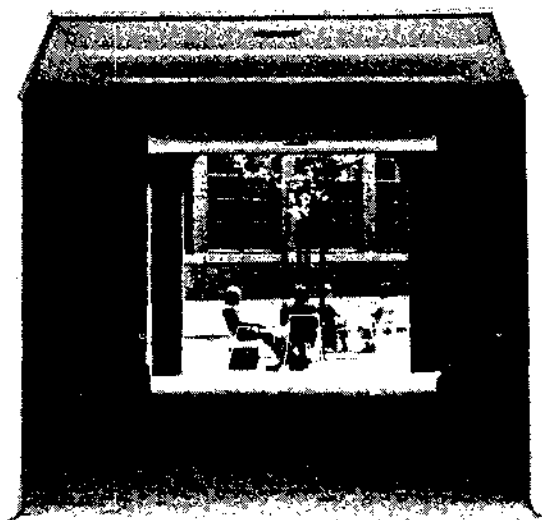
PROFESSIONAL CERTIFICATION PROGRAMS

The following programs lead to the Bachelor of Arts in Education degree and a provisional certificate with recommendation for teaching at a certain level or in a certain subject area. Ordinarily, the student will elect just *one* of these programs (the minimum for a degree). However, students wishing to broaden their preparation for greater employability may choose to prepare in more than one area or level. In such cases, study programs will be developed with appropriate advisers to avoid duplication of courses.

Normally, the student will elect one of these programs and seek admission and advisement before proceeding. Students uncertain of teaching level and/or teaching field should consult advisers in the various programs and/or major fields. Education 390, Professional Practicum and Seminar, also provides exploratory opportunities through actual contact with more than one school level.

Common to all programs is the core of general college requirements for the B.A. degree outlined under "Requirements for Bachelors Degrees, General College Requirements."

History 391, Washington State History and Government, is no longer required of all candidates for teacher certification. Only those majoring in social studies or history or those expecting to teach Washington state history must complete the course.



PROGRAM I SECONDARY TEACHING

(Grades 7-12)

Admission and Advisement — Miller Hall 306

A. Teaching Major

Select appropriate major from the following and consult advisers in the department offering the major. See also departmental sections of the catalog for specifications. Candidates are advised to take major responsibility for informing themselves of employment opportunities in various fields and to select majors that lead to realistic employment opportunities.

Art	Geography-Social Studies
Biology-Chemistry (S)	History
Biology-Physical Science	History-Social Studies
Business Education (S)	Home Economics
Chemistry-Mathematics	Industrial Arts
Chemistry-Physics	(Technology)
Earth Science	Mathematics
Earth Science-Physical Science	Music Specialist
English	Physical Education
English-Speech	Physical Science
Ethnic Studies-Social Studies	Physics (S)
Foreign Language	Physics-Mathematics
General Science (J)	Political Science-Social
Geography	Studies
	Speech

Majors followed by (S) are applicable to senior high only; those followed by (J) are applicable to junior high or middle school only; others are applicable at any secondary level.

B. Minor

Optional; intended for those who wish to broaden their teaching preparation.

C. Professional Studies

Students will elect either the campus-based or field-centered program outlined above in "Professional Studies Programs" section.

PROGRAM II ELEMENTARY TEACHING

(Grades K-8)

(Academic Major — Elementary Minor)

Admission and Advisement — Miller Hall 251

A. Teaching Major

A major in a field or area approved as related to the curriculum of the public school. Select from this list of approved majors and consult appropriate academic department for planning and

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approval of major. See department sections of the catalog for specifications.

Anthropology	Home Economics
Art	(Child Development)
Earth Science	Mathematics
English	Music
Environmental Education	Physical Education
Foreign Language	Psychology
General Science	(Child Development)
Geography	Social Studies
History	Speech (General)
	Speech Therapy

B. Elementary Teaching Minor

Basic Core (23-24 credits)

- Ed 485 Basic Reading Instruction (4)
- Eng 440 English for the Elementary School (4)
- Math 281 Theory of Arithmetic (4)
- Math 481 Mathematics in Grades 1 through 8 (4)
- Soc St Ed 425 Social Science for the Elementary School (3)
- Sci Ed 380 Science for the Elementary School (3), *plus one course from:*
 - Sci Ed 381 Science for the Elementary School (3)
 - Sci Ed 383 Biological Science for the Elementary School (3)
 - Sci Ed or Geol 384 Earth Science for the Elementary School (3)
 - Sci Ed or Phys Sci 382 Physical Science for the Elementary School (3)

12 credits in one of the following options:

(a) General Classroom

- Under advisement select from:
 - Art 380
 - Education 360, 421, 424, 426, 431, 439
 - English 370, 441, 442, 443
 - Health Ed 350, 449
 - Library Sci 309, 405
 - Linguistics 201
 - Music 350, 451
 - PE 306, 403
 - Sci Ed 382, 383 (if not taken in basic core)
 - Speech 319, 351, 373
 - Technology 350
 - Theatre/Dance 350

(b) Early Childhood

- Ed 431 and 432 or 433
- 6-8 credits under advisement from: Art 380; Ed 331, 421; Home Econ 120, 424; Lib Sci 309, 405; PE 306 and 326; Anth 481; Speech 351, 354, 430, 484; Tech 350; Theatre/Dance 351

(c) Special Education

- Ed 360, 361, 461, 462, 462a

C. Professional Studies

Students will elect either the campus-based or field-centered program outlined above in "Professional Studies Program" section.

PROGRAM III PROFESSIONAL CONCENTRATION FOR THE ELEMENTARY TEACHER

Admission and Advisement – Miller Hall 251

This 85-credit concentration fulfills all professional requirements for certification with recommendation for general classroom teaching in the elementary grades (K-8) when accompanied by a 40-credit *Academic Study in Depth*.

In addition to the standards for admission to teacher education, students enrolling in the Professional Concentration for the Elementary Teacher are required to furnish (1) evidence of at least ten days of full-time observation and participation in an elementary school classroom; (2) at least two letters of recommendation; and (3) successful completion of one quarter of Ed 399. Application forms and advisement are available in Miller Hall 251.

A. Professional Courses

Plan with adviser for 85 credits of work from the following five blocks within the specified minimum and maximum credits.

Block A (campus-based)

minimum of 4 credits in *each of 4 areas* from 1-5
maximum, 30 credits

- Area 1 Teaching as a Profession—Select from Ed 131, 390, 399*
- Area 2 Human Relations—Select from Ed 391, 399; Speech 407*
- Area 3 Foundations of Education—Select from Ed 310, 399, 411*
- Area 4 Elementary Methods and Analysis—Select from Ed 399, 421*
- Area 5 Child Development and Learning—Select from Ed 399; Home Econ 320; Psych 316, 351, 372*

The normal expectation is that students will be continuously enrolled in Ed 399 each quarter to a maximum of five times. A limit of one credit in Ed 399 may be applied to each area above.

Block A (field-centered)

Ed 310, Psych 316 or Home Econ 320
Ed 399, 421, and 492

**Consult adviser or Coordinator of Elementary Education for additional courses appropriate for application to the 85 credit total.*

Block B

minimum of 5 credits in each of areas 6-9
maximum, 36 credits

- Area 6 Language Arts—Select from Ed 385, 439, 485, 488, 493ef; Eng 440 or Ed 424; Lib Sci 405*
- Area 7 Social Studies Education—Select from Hist 391 or alternative; Soc St Ed 425* or Ed 426ab
- Area 8 Mathematics Education—Select from Math 281, 481*
- Area 9 Science Education—Select from Sci Ed 380, 381, or 383, or Sci Ed/Geol 384 or Sci Ed/Phys Sci 382*

Block C

minimum of 3 credits
in each of two areas from 10-13
maximum, 20 credits

- Area 10 Physical Education—PE 306
- Area 11 Art Education—Art 380
- Area 12 Music Education—Music 350
- Area 13 Industrial Arts Education—Tech 350

Block D

minimum of 8 credits; maximum, 32
normally 16 credits

- Area 14 Student Teaching and Field Experience

B. Academic Study in Depth

The candidate will develop an academic concentration of 40 credits by extending one area from areas 5-13 with prior approval of the elementary adviser and consultation with appropriate departments. Overlap of courses is possible between those taken to satisfy general college requirements or the 85-credit professional concentration and those taken to satisfy this academic concentration.

The student is expected to identify a central theme or focus for the academic study and select courses appropriate to the development of that theme. At least 20 of the 40 credits must be in courses in which the main emphasis is not teaching strategies; at least 20 credits must be taken in departments other than education.

Work in the Academic Study in Depth should be initiated early in the student's program, preferably when a sophomore, before seeking formal admittance to the Professional Concentration for Elementary Teachers.

**Consult adviser or Coordinator of Elementary Education for additional courses appropriate for application to the 85 credit total.*

PROGRAM IV TEACHING IN SPECIAL EDUCATION

Admission and Advisement — Miller Hall 318

A. Major for Elementary Special Education

- Education 360, 361, 461, 462, 462a, 466
- Elementary Basic Core
 - Education 485 (4)
 - Education 424 or English 440 (4)
 - Education 426 or Soc Studies Ed 425
 - Math 281 or 481 (4)
 - Science Education 380 (3)
- Electives: 7-11 credits selected under advisement from the following: Education 261 (1) {may be repeated for a maximum of three (3) credits}; *Mental Retardation*: Ed 465; *Emotionally Disturbed*: Ed 463; *Learning Disability*: Ed 460a,b,c; *Elementary Education*: Ed 439, 488, Lib Sci 405, a second course in math education and in science education

Minor for Elementary Special Education

- The above major must be accompanied by an academic minor in one of the areas listed in Program II for Elementary Teaching majors. Minors are offered in most of these areas; see department section of the General Catalog and departmental advisers for specifications.

B. Major for Secondary Special Education

- The student will complete a teaching major from the approved list in Program I for Secondary Teaching.

Minor (required for teaching recommendation in special education at the secondary level)

- Special Education courses: Ed 360, 361, 461, 462, 462a, 466
- Elementary Education courses: Ed 485, plus at least one course from Ed 424, 426, 439; Eng 440; Lib Sci 405; Math 281, 481; Soc St Ed 425; Sci Ed 380, 381

C. Professional Studies

- Complete the campus-based or the field-centered program outlined in the General Catalog for either the elementary or secondary level, depending on level of preparation (A or B above); for endorsement in special education, add Ed 498, Supervised Teaching—Special Education

PROVISIONAL CERTIFICATION OF DEGREE HOLDERS

Admission and Advisement — Miller Hall 204

U.S. citizens holding a bachelor of arts or bachelor of science degree from an accredited institution may be admitted to a program leading to the

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provisional teaching certificate. This individually prescribed program normally entails three to four quarters of residence study, including student teaching.

Persons selected for this program must have demonstrated academic ability, a broad liberal arts preparation, a major field acceptable for public school teaching, and realistic career plans.

Up to 30 hours of this program may be applied toward the traditional fifth year leading to the standard certificate. To meet full requirements for the standard certificate, a minimum of 15 quarter hours of planned study is required after at least one year of teaching and evidence must be presented of three years of teaching experience which, judged as a whole, are satisfactory.

Note: Special arrangements are possible for individuals who hold the bachelor's degree, have little or no professional preparation, but have one year or more of successful paraprofessional experience in the public schools. Such individuals may be recommended for certification, provided that they successfully complete one quarter of residence study on campus, other study as required in their individual program, and student teaching.

FIFTH YEAR OF STUDY FOR TEACHERS HOLDING PROVISIONAL CERTIFICATES

The provisional certificate is valid for three years from the date of issuance, and may be renewed for a second three-year period upon completion of an approved 12 quarter hours of the fifth year. For teaching in Washington after the expiration of the provisional certificate, the teacher must complete an approved fifth year of study leading to the standard certificate.

The Standard Certificate, issued after completion of the fifth year of study and at least three years of satisfactory teaching experience, is valid for teaching at any level in the public schools of Washington on a continuing basis, and for a period of seven years.

The fifth year of study may be satisfied in combination with one of the programs leading to a master's degree or by an approved study program without an advanced degree as its goal. Under either program the student files a fifth-year plan with the Office of Fifth Year Advisement, Miller Hall 204.

The plan for each student is developed with the assistance of local school officials and college advisers and is to be approved *before courses are taken*.

State regulations for the standard certificate include the following general specifications:

- Credit—45 quarter hours of approved study in addition to bachelor's degree
- Correspondence credit limited to 5 quarter hours
- One-half or more of the 45 credits in upper-division and/or graduate study
- Course work to include both academic and professional studies
- One-half or more of work to be earned through recommending institution, or an approved out-of-state institution; courses taken out-of-state require prior approval of preservice recommending institution
- Limited amount of fifth-year study allowed prior to teaching with prior approval of recommending institution
- Three years teaching experience which judged as a whole are satisfactory; recent teaching experience is of particular concern

The College requires that each fifth-year student complete at least one quarter of *residence* study on campus.

The College accepts for fifth-year study only those courses completed with a grade of "C" or better. Grades of "P" may apply if a statement from the instructor is provided indicating that the grade represents at least a "C" level equivalency. Such statement is obtained on the student's initiative and filed with the Office of Fifth Year Advisement.

GRADUATE STUDY

For a number of concentrations in education leading to the Master of Education degree, see the *Graduate Bulletin*.

COURSES IN EDUCATION

KEY TO COURSE NUMBERS: *The first digit follows the College policy of numbering for the year in which the course is normally taken. The second digit signifies the following course groups:*

0	Introductory
1	Foundations
2	Curriculum and Instruction
3	Child and Youth Education
4	Administration and Supervision
5	Educational Media and Student Personnel Administration
6	Special Education and the Disadvantaged
7	Statistics and Research and Adult Education Administration
8	Reading
9	Supervised Teaching or Practicums

(See *Psychology* section for courses in *Educational Psychology*.)

109 INTRODUCTION TO EDUCATION (3)

Introduction to the history, sociology, philosophy, and psychology of education; suggested for Fairhaven College students.

- 131 INTRODUCTION TO EARLY CHILDHOOD EDUCATION (3)
Review of the field in terms of history, philosophy, and professional opportunities; observation of young children.
- 261 PRACTICUM ORIENTATION TO SPECIAL EDUCATION (1)
Guided observation and career exploration in special education; may be repeated for a maximum of 3 credits. S/U grading.
- 300 SPECIAL PROJECTS IN EDUCATION (2-5)
- 310 THE TEACHER AND THE SOCIAL ORDER (3)
Prerequisite: sophomore status. Dominant aspects of society as they interact with schools and teaching.
- 381 CREATIVE LEARNING EXPERIENCES IN EARLY CHILDHOOD EDUCATION (3)
Materials and teaching strategies designed to elicit creative responses in young children through storytelling, art, music, body movement, puppetry, creative dramatics, and other media of expression.
- 340 PARAPROFESSIONAL ADVISEMENT (3)
Prerequisite: employment or anticipated employment in campus-based student services and permission of instructor. Course work emphasizes the nature of the helping relationship; an overview of philosophical issues which confront paraprofessionals; and the development of specific job requirement skills.
- 360 INTRODUCTION TO EXCEPTIONAL CHILDREN (3)
Prerequisite: admission to teacher education or permission of department. Problems and methods of identifying and teaching children who are handicapped or gifted.
- 361 PRACTICUM IN SPECIAL EDUCATION (4)
Prerequisite: permission of department. Program of observations and participation in recreational and academic activities.
- 385 FOUNDATIONS OF READING INSTRUCTION (2)
Prerequisite: admission to teacher education. Study-reading in content areas; speed reading; basic principles of teaching reading; standardized and informal reading testing.
- 390 PROFESSIONAL PRACTICUM AND SEMINAR (3)
Prerequisite: permission of department. Observation, participation and related seminars to enable each student to make a suitable professional decision. S/U grading.
- 391a,b,c,d HUMAN RELATIONS (1-4)
Prerequisite: none. A study and practicum in interpersonal relationships as they affect teacher-student interaction.
- 398 SEMINAR IN SECONDARY EDUCATION (2)
To be taken concurrently with, immediately before or after Ed 310. Responsibilities and opportunities in the middle school and senior high schools; special academic and professional advisement. S/U grading.
- 399 SEMINAR IN ELEMENTARY EDUCATION (1)
Prerequisite: permission of adviser; completion of 10 days of full-time observation and participation in an elementary school; open only to students in the Professional Concentration for the Elementary Teacher. Teaching as a profession, methods of instruction, human relations in the classroom, self-evaluation of candidates as potential teachers; observation and field experiences. Repeatable for a maximum of 5 credits.
- 400 SPECIAL PROJECTS IN EDUCATION (2-5)
Prerequisites: permission of department; prior to admission a one-page description of project or research proposal must be presented. Special supervised individual projects.
- 401 TEACHING WORD ATTACK SKILLS IN READING (2)
Prerequisite: teaching experience or permission of instructor. Phonics and other friends. Directed mainly toward primary grade teachers, this workshop stresses the latest techniques and materials for teaching word attack skills. Systems of phonics will receive in-depth study. Techniques for achieving independent use of all word attack skills, singly and in combination, will be presented.
- 402 AIDING SECONDARY DISABLED READERS (2)
Prerequisite: teaching experience or permission of instructor. Directed toward middle school and high school classroom teachers, this workshop will concentrate on practical suggestions, teaching techniques and materials proven to be useful in aiding disabled teenage readers. Both reading in the content areas and developmental reading skills will be considered.
- 411 FOUNDATIONS OF EDUCATION (4)
Prerequisite: admission to teacher education. Differing views of man and learning as they relate to educational aims, methods and content.
- 413 HISTORY OF AMERICAN EDUCATION (4)
Historical development of formal education emphasizing the impact of cultural forces on evolution of the American system of public education.
- 414 COMPARATIVE EDUCATION (3)
Educational systems in the major countries, including Canada; backgrounds, aims, types, and present functions; comparison with the American system.
- 416 PERSISTENT PROBLEMS IN EDUCATION (3)
Seminars in socio-philosophical problems as they relate to education; different seminars deal with different problems and related sociological and philosophical theory.
- 417 SEMINARS IN SPECIALIZED AREAS
417b Education in Developing Countries (3)
417c Computer Techniques for Classroom Problem Solving (3)
Prerequisite: Ed 444 or equivalent.
417d Montessori and Early Childhood Education (3)
Prerequisite: teaching experience or permission of instructor.
- 420 INSTRUCTION IN SECONDARY SCHOOLS (3)
Prerequisites: admission to secondary education, Ed 310, 398; Psych 351, 353. To be taken quarter preceding student teaching. Secondary methods; videotaped teaching opportunities in simulated and/or micro-teaching settings; observation of teaching in secondary schools; readiness for supervised teaching verified.
- 421 INSTRUCTION IN THE ELEMENTARY SCHOOL (3-5)
Organizing learning experiences, selecting methods or processes and materials appropriate to the maturation and rate of development of children.
- 422 THE ELEMENTARY CURRICULUM (3)
Prerequisite: student teaching, teaching experience, or permission of department. Historical and analytical study of the curriculum of the elementary school.

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- 423cd CURRICULA IN BASIC LANGUAGE ARTS SKILLS IN SECONDARY SCHOOLS (3)
Prerequisite: admission to teacher education. 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.
- 424a,b,x LANGUAGE ARTS IN THE ELEMENTARY CURRICULUM (4)
Functions and programs of language arts in the curriculum including reading, writing, speaking, listening. Letters indicate grade level of emphasis in various sections of the course:
(a) Primary
(b) Intermediate
(x) Early Childhood
- 424c,d LANGUAGE ARTS IN THE SECONDARY CURRICULUM (3)
Functions and programs of language arts in the secondary curriculum,
(c) Junior High - Middle School
(d) Senior High
- 425 THE SECONDARY CURRICULUM (3)
Prerequisite: supervised teaching, teaching experience, or permission of instructor. Development, evaluation and change of the secondary curriculum; for those wanting to evaluate and design curriculum in various school districts.
- 426a,b SOCIAL STUDIES IN THE ELEMENTARY CURRICULUM (3)
Prerequisite: teaching experience or permission of department. Functions, programs, and materials in the social studies. Letters indicate grade level of emphasis in various sections of the course:
(a) Primary
(b) Intermediate
- 426c,d SOCIAL STUDIES IN THE SECONDARY CURRICULUM (3)
Prerequisite: teaching experience or permission of department. Functions, programs, and materials in the social studies. Letters indicate grade level of emphasis in various sections of the course:
(c) Junior High
(d) Senior High
- 427 HISTORICAL FOUNDATIONS OF ADULT EDUCATION (5)
Prerequisite: senior or graduate status, or permission of instructor. Institutions participating in adult education since the 16th century; types of sponsorship, audiences, organization, social problems; current needs and institutional responses.
- 428 WORKSHOP IN INSTRUCTION (2-5)
Prerequisite: teaching experience. Offered in conjunction with a summer conference, emphasizing an aspect of instruction; topics vary from summer to summer.
- 431 TRENDS AND ISSUES IN EARLY CHILDHOOD EDUCATION (3)
Prerequisite: permission of instructor. An in-depth study of the historical and philosophical bases of the education of young children and an examination of trends and issues in psychological theory as they relate to current programs.
- 432 NURSERY EDUCATION (3)
Prerequisite: Ed 431 or permission of instructor. Development of curriculum for nursery school age children, emphasizing experiences which develop language, perceptual, motor, creative and interpersonal competencies. (Also offered as Home Econ 420.)
- 433 KINDERGARTEN AND PRIMARY EDUCATION (3)
Prerequisite: Ed 431 or permission of instructor. Historical background; recent trends; organization of facilities and materials for kindergarten and primary programs; curriculum development based upon research in this area.
- 438 SCHOOL-HOME-COMMUNITY RELATIONSHIPS (3)
Problems of communication and interaction among teachers, parents, and paraprofessionals, administrators, and community; conferencing, planning meetings, community survey, PR publications, use of mass media.
- 439 IMPROVEMENT OF WRITING SKILLS FOR CHILDREN (2-4)
Appropriate sequence of skills in composition for children; techniques implementing creative writing and improving fundamental skills.
- 441 ANALYSIS AND STRATEGIES OF TEACHING (3-5)
Prerequisite: one course from the educational psychology or foundations area, or permission of instructor. Systematic study of teaching; observation; analysis and development of teaching skills and strategies; individual projects.
- 442 WORKING WITH STUDENT TEACHERS (3)
Prerequisite: teaching experience. Techniques for the orientation of student teachers, major problems which confront student teachers, and evaluation of their achievement.
- 443 THE COMMUNITY COLLEGE (3)
Prerequisite: senior or graduate status. History, objectives, organization, and role of the public community college; special attention to the expanding system in the state of Washington.
- 444 INSTRUCTIONAL MANAGEMENT SYSTEMS (3)
Prerequisite: permission of instructor. Survey of both manual and automated systems including Computer-Managed Instruction Systems (CMI) and Computer-Assisted Instructional Systems (CAI).
- 445 CURRENT TOPICS IN EDUCATION (1-5)
Prerequisite: teaching experience or permission of instructor. Repeatable with different subject content subject to approval by the department.
(a) Adult Education Administration
(b) Educational Administration
(c) Reading
(d) Foundations
(e) Learning Resources/Library Science
(f) Secondary Education
(g) Special Education
(h) Student Personnel Administration
(j) Elementary Education
(k) Early Childhood Education
(n) Community Education
(p) Interprogram Topics
- 450 INTRODUCTION TO LEARNING RESOURCES (3)
Prerequisite: an introductory professional education course. The role and application of educational media and technology in the teaching-learning process; laboratory.
- 451 PRACTICUM IN LEARNING RESOURCES (3)
Prerequisite: Ed 450. Preparation of inexpensive instructional materials for classroom utilization; selection, evaluation, utilization of major types of audiovisual materials and equipment; organization and curricular integration of educational media.

- 456 PRINCIPLES AND PRACTICES OF INDIVIDUALIZED INSTRUCTION AND CONTINUOUS PROGRESS EDUCATION (4)
Prerequisite: practicing teacher. Survey of practices related to most individualized programs and how such practices and programs relate to certain principles of learning; emphasis on types and uses of alternative learning materials found in such programs and systems for monitoring and managing learner progress.
- 457a PRACTICUM IN DEVELOPING SEQUENCES OF PROGRAMMED INSTRUCTION (3-5)
Programmed learning as application of theories of learning; practice in developing specific behavioral objectives; writing short programs in field of interest.
- 457b PRACTICUM IN DEVELOPING INSTRUCTIONAL PACKAGES (3-5)
Identification of instructional problems in area of interest, task analysis, identification of entry behavior; writing measurable objectives; construction of criterion-referenced tests, designing instructional strategies, constructing comprehensive learning activity packages; informal critique of an instructional package.
- 457c PRACTICUM IN DEVELOPING INSTRUCTIONAL GAMES AND SIMULATIONS (3-5)
Systematic preparation of instructional games and/or simulations. Emphasis is on: planning prior to constructing games and simulation materials; and, informally, critiquing both teacher and commercially developed games and simulation kits.
- 457d PRACTICUM IN FIELD TESTING COMMERCIAL AND TEACHER-PREPARED INSTRUCTIONAL MATERIALS (3)
Introduction to a variety of evaluation procedures used to assess students' cognitive and affective responses to selected instructional materials; utilization of a selected set of evaluation procedures to field-test specific materials with a view to determine how effectively and efficiently they bring about intended outcomes.
- 460 SEMINAR IN SPECIAL EDUCATION
Prerequisite: Ed 360 or teaching experience or assignment. Specific problems of exceptional children. Specific methods or curricula for teaching certain exceptional children—course content will vary from time to time.
- 460a Specific Learning Disorders (2-5)
- 460b Seminar in Special Education: Early Identification of Handicapped Children (4)
Prepare teachers and other school personnel to identify handicapped children and to interpret diagnostic test results and information provided by experts concerning students.
- 460c Seminar in Special Education: Diagnostic Teaching of (Preschool or Primary) Children (4)
Identify learning problems, select instructional strategy(ies), and management procedure(s) for children with different behavior and learning problems. May be repeated with the second age group for a total of 8 credits.
- 460d Seminar in Special Education: Education of Visually Handicapped Children (2)
Information and skills necessary for teachers and other school personnel to work with visually handicapped children in their regular classes.
- 461 PRECISION TEACHING—A METHODOLOGY FOR THE DYSFUNCTIONAL CHILD (3-5)
Prerequisite: Ed 360 or teaching experience or permission of instructor. Theoretical background and practical experience in the skills of precision teaching. Training and experience in pinpointing and assessing classroom behavior, developing plans for remediating problems, collecting continuous measurements for evaluating the remediation program, and making decisions regarding additional ongoing programming.
- 462 CURRICULUM FOR THE EXCEPTIONAL CHILD (4)
Prerequisite: for summer offering, teaching or student teaching experience; for academic year, concurrent enrollment in Ed 462a. Identification and etiology of most prevalent handicaps found in special education classes; curriculum development and adaptation; selected methods and materials basic to teaching these handicapped children.
- 462a CURRICULUM FOR THE EXCEPTIONAL CHILD: PRACTICUM (1-3)
Prerequisite: concurrent enrollment in Ed 462. Practicum in assessment, curriculum organization, instruction and evaluation of pupil progress for exceptional children. S/U grading.
- 463 EDUCATION OF MALADJUSTED CHILDREN (4)
Prerequisite: Ed 360. Review of past and present procedures in the education of emotionally disturbed children, and an in-depth analysis of the application of the major theoretical models to the education of emotionally disturbed children.
- 464 THE DISADVANTAGED: SEMINAR (2-4)
Prerequisite: conference course permit required from instructor before registering. Psychological, sociological, and educational implications of the problem of disadvantaged youth; analysis of planning efforts for disadvantaged children and youth.
- 465 ACTIVITIES FOR EDUCATION OF THE HANDICAPPED (3)
Prerequisite: Ed 360 or permission of instructor. Experiences designed to provide knowledge of and ability to use equipment and material in teaching arts and crafts to handicapped children. S/U grading.
- 466 GUIDANCE FOR THE HANDICAPPED CHILD (4)
Prerequisite: Ed 360, 361. Application of techniques in guiding and counseling exceptional children and communicating their characteristics to parents and others influential in meeting their needs.
- 467 SEMINAR IN PRECISION TEACHING (4)
Prerequisite: Ed 461 or equivalent. Mastery of precision teaching techniques and; charting conventions, acceleration analysis, curriculum planning; summary analysis, and accountability; individual projects.
- 473 EDUCATIONAL STATISTICS (5)
Prerequisite: Math 240 or equivalent, or permission of instructor. Statistics applicable to description of school data and research in education, primarily selected analysis of variance and correlation procedures; computer applications.
- 475 EVALUATING PUPIL GROWTH (3)
Prerequisite: teaching experience or permission of instructor; for experienced teachers and research workers. Evaluative techniques related to significant or complex objectives; assessing outcomes of innovative teaching.
- 477 TEACHING HIGHER LEVEL THINKING ABILITIES (3-5)
Prerequisite: Psych 316, 351. Cognitive functions and teaching strategies that promote higher level thinking abilities in students, based primarily on the work of Taba.
- 478 TEACHING PROBLEM SOLVING (2)
Application of research in the development of problem solving and teamwork skills for teachers and administrators.

Education

- 479 **INQUIRY DEVELOPMENT (3-5)**
Systematic preparation of teachers in strategies related to development of autonomous and productive inquirers; instruction in four main types of action necessary to stimulate and sustain inquiry: searching, processing data, discovering, and verifying.
- 480 **CONFERENCE IN READING (1-3)**
Prerequisite: teaching experience. Offered from year to year with varying themes.
- 481 **DEVELOPMENTAL READING IN THE SECONDARY SCHOOL (4)**
For pre-service and experienced classroom teachers, grades 6-12. Developmental reading skills, reading skills specific to content areas, and basic study skills. Suggestions for dealing with the wide range of reading achievement. Not a course in remedial reading.
- 484 **THE TEACHING OF READING IN CONTENT FIELDS (4)**
Techniques of teaching reading and applying reading to studying in social sciences, mathematics, English, and other content areas in upper intermediate and secondary grades.
- 485 **BASIC READING INSTRUCTION (3-4)**
Prerequisite: Ed 385 or teaching experience. Basic reading instruction in grades K-8; methods and materials for teaching reading, reading readiness; work attack skills, word reading skills, comprehension skills; grouping; lesson planning.
- 486 **PROBLEMS IN CORRECTIVE READING INSTRUCTION (4)**
Prerequisite: permission of department. Analysis, correction, and prevention of reading problems; refinement of group and informal testing, supervised practicum with pupils having mild disabilities in reading.
- 488 **INDIVIDUALIZED READING INSTRUCTION (4)**
Principles and practices of individualized reading with emphasis on problems in organizing classroom programs for meeting individual interests and needs.
- SUPERVISED LABORATORY TEACHING — Courses 490-496 and 498 offer varied opportunities for laboratory study in the classroom and for student teaching. Practice in the classroom is an integral part of professional preparation. See "Requirement for Supervised Teaching" section for prerequisites, time of application, etc.*
- 490 **OBSERVATION AND PARTICIPATION (3)**
Prerequisite: permission of department. Guided observation of experienced teachers and limited participation in teaching situations. S/U grading.
- 491 **LABORATORY IN PREPARATION OF INSTRUCTIONAL PROGRAMS (6)**
Prerequisite: admission to a clinical program. Individual study of learning principles and their application in cooperating schools; selecting and justifying objectives and defining them operationally; designing plans, selecting strategies and materials to implement plans, adapting to actual pupils in the schools. S/U grading.
- 492 **LABORATORY IN INTERACTION AND EVALUATION (6)**
Prerequisite or concurrent: Ed 491. Implementing significant learning objectives through interaction with pupils; evaluation of learning under guidance of cooperating public school teachers and college faculty. S/U grading.
- 493e,f **INDIVIDUALIZED INSTRUCTION IN READING — LANGUAGE ARTS IN THE ELEMENTARY SCHOOL (6 ea)**
Integration of reading, writing, speaking, listening and use of children's books as functional tools of the communication process; laboratory experience in developing individualized language activities with children in school settings. S/U grading only.
- 494 **SUPERVISED TEACHING — ELEMENTARY (8-16)**
Prerequisite: permission of department. (See student teaching prerequisites above.) Supervised experience providing opportunities to develop and demonstrate teaching competence at the primary and/or intermediate grades. May be repeated with varied assignment. S/U grading.
- 495 **SUPERVISED TEACHING — SECONDARY (8-16)**
Prerequisite: permission of department. (See student teaching prerequisites above.) Supervised experience providing opportunities to develop and demonstrate teaching competence at the junior high (middle school) or senior high school level. May be repeated with varied assignment. S/U grading.
- 496 **PRACTICUM IN DIAGNOSIS AND PRESCRIPTION IN TEACHING (2-3)**
Prerequisite: teaching experience. Defining objectives behaviorally; developing sequential learning activities; analyzing pupil readiness; prescribing appropriate strategies for continuous individual progress; applications with students in classrooms. May be repeated with varied content to a total of nine credits.
- 497e **SUBSTITUTE TEACHING (3)**
Prerequisite: student teaching. Analysis and development of materials and strategies unique to substitute teaching.
- 497f **READING WORKSHOP: READING FOR HIGH ACHIEVERS AND THE GIFTED (2)**
Prerequisite: teaching experience or permission of instructor. This workshop is concerned with a variety of approaches to those children who are exceptionally high achievers in reading and/or are brighter than the average school population; perhaps the top 20 per cent of the school population. Emphasis will be on realistic reading activities, critical and creative thinking. (Summer 1977.)
- 497g **READING WORKSHOP: MEDIA, COMMUNICATION AND LANGUAGE ARTS (2)**
Prerequisite: teaching experience or permission of instructor. An analysis of the influence and contribution of all media to reading and language development, and of the way in which media can be used to teach students at all grade levels to read. Topics will include drama and theater, films, television, music, and literature from comic strips to Shakespeare. At least one evening of theater is planned, and the classes will include demonstrations, viewings and creative participation. (Summer 1977.)
- 497h **READING WORKSHOP: TEACHING COMPREHENSION IN AND THROUGH READING (2)**
Prerequisite: teaching experience or permission of instructor. Directed mostly toward teachers of grades 3-7, this workshop will concentrate on organizing and evaluating comprehension through study of the function of questions in achieving comprehension. Materials such as the Barrett taxonomy of comprehension and the analysis of current teaching materials will be employed as an aid in preparing materials to meet specific teacher needs. Comprehension in the content areas will also receive emphasis. The major thrust of the workshop will be on practical suggestions and activities rather than on theoretical approaches to this topic. (Summer 1977.)

- 497j WORKSHOP IN LANGUAGE EXPERIENCE TECHNIQUES (2)
Prerequisite: teaching experience. Techniques for using discussion, children's writing and other language arts to teach vocabulary, word recognition, spelling and sentence structure in the primary grades, and to integrate social studies, science, mathematics, arts, music, literature and other curricula. (Summer 1977.)
- 497k VALUING AND MORAL DEVELOPMENT (4)
The rationale for values clarification, moral development and other methods of values instruction will be studied along with ways to implement valuing strategies in the classroom.
- 498 SUPERVISED TEACHING — EXCEPTIONAL CHILDREN (8-16)
Prerequisites: Ed 360 and 462 and student teaching or teaching experience. Supervised teaching experience providing opportunities to develop and demonstrate teaching competence for exceptional children. S/U grading.
- 499 ELEMENTARY STUDY IN ENGLAND (3, 6)
Practicum and theory of elementary education in England; e and f must be taken in sequence. Offered summers in England.
499e Teaching Practicum in an English Elementary School (3)
499f Workshop in Philosophy, Curricula, Methods and Materials of English Elementary Education (6)
- 500 SPECIAL PROJECTS IN EDUCATION (2-5)
Prerequisites: permission of department; prior to admission a one-page description of project or research proposal must be presented. Supervised individual projects.
- 501 INTRODUCTION TO EDUCATIONAL RESEARCH (4)
Prerequisite: graduate status. Experimental documentary, case study, survey, and other methods of educational research and investigation; required during the first quarter of the student's program leading to the master's degree.
- 511 SEMINARS IN SOCIAL THEORIES AFFECTING EDUCATION (3)
Studies in various aspects of social theory as it relates to education. Different seminars will deal with different topics and related theory.
- 512 SEMINAR IN EDUCATIONAL PHILOSOPHY (4)
Prerequisites: Ed 501. Differing concepts of the nature of man and his education; historical and philosophical development of these concepts, their basic premises, implicit assumptions, and issues.
- 513 SEMINAR IN PSYCHOLOGY AND SOCIOLOGY OF EDUCATION (4)
Prerequisites: Ed 501. Differing concepts of the nature of the individual and society; psychological and sociological development of these concepts; basic premises and implicit assumptions.
- 516 SEMINARS IN PHILOSOPHY OF EDUCATION (3 ea)
Prerequisite: Ed 411 or equivalent. Studies of the works of one man, a problem, or a movement; implications for schooling.
- 518 CURRENT ISSUES IN HIGHER EDUCATION (3)
Prerequisite: graduate status or permission of department. Examination and discussion of several current and controversial issues in higher education.
- 521 SEMINAR IN ELEMENTARY CURRICULUM (4)
Prerequisite: Ed 422 or equivalent. Advanced study of curriculum planning and development, including design, materials, and problems in curriculum change. Independent research will be expected.
- 522 SEMINARS IN SECONDARY CURRICULUM (4)
Prerequisites: teaching experience and Ed 425 or permission of department. Planning and developing curriculum; advanced study of curriculum design and materials; independent research.
- 524 SEMINAR IN SECONDARY SCHOOL LANGUAGE ARTS CURRICULUM (2-4)
Planning and developing curriculum in language, literature, and composition. Advanced study in specialized curriculum design and materials.
- 531 SEMINAR IN EARLY CHILDHOOD EDUCATION (3)
Prerequisites: Ed 422, 431, 432, and 433 or permission of department; to be taken concurrently with Ed 596a. Critical analysis of programs of early childhood education emphasizing interpersonal relations, role of agencies, and instructional procedures and materials.
- 532 TEACHING AND LEARNING OF ELEMENTARY SCHOOL SUBJECTS (4)
Prerequisites: Ed 501, 512 or permission of department. Advanced study of research findings and theoretical developments affecting the teaching of various basic elementary school subjects for which teachers are responsible. Individualized research and study in particular areas of interest will be encouraged.
- 533 SEMINAR: THE ELEMENTARY SCHOOL CHILD (4)
Prerequisite: Ed 422 or permission of department. Critical review of current life in elementary school classrooms in relation to individual differences and general growth patterns of children, ages 5-12, research findings in psychological impact of schooling upon child growth and development as bases for examining specific educational practices, and determining implications for improving classroom and school practices.
- 538 CASE STUDIES IN SCHOOL ADMINISTRATION (2)
Prerequisite: graduate status. Development and use of case studies to assist the student in understanding and resolving problems facing the practicing school administrator.
- 539 EDUCATIONAL LEADERSHIP (4)
Prerequisite: teaching experience. Roles and responsibilities of persons serving as members of the leadership team in the public schools.
- 541a THEORY IN EDUCATIONAL ADMINISTRATION (4)
Prerequisite: graduate status. Major administrative theories and models.
- 541b PUBLIC SCHOOL ORGANIZATION AND ADMINISTRATION (4)
Problems related to administration of school personnel, plant, and program; structure and organization of the school system.
- 541c SCHOOL LAW (4)
Prerequisite: Ed 541a. Legal principles underlying statutes and court decisions related to the schools.
- 541d INTERGOVERNMENTAL RELATIONS IN EDUCATION (3)
Formal and informal mechanisms at state and federal level which influence decision-making and program development at the local level.

Education

- 541e COLLECTIVE BARGAINING IN PUBLIC SCHOOLS (4)
Prerequisite: graduate status. Technical structure and protocol of collective bargaining in general; issues and practices of collective bargaining in education in particular; insights to be derived from simulating formalized collective bargaining.
- 542a,b,c,d FIELD PROJECT IN EDUCATIONAL ADMINISTRATION (4)
Prerequisites: permission of instructor and submission of a one-page outline indicating the scope of the project. Design, implementation and evaluation of a field project in educational administration; may be repeated once for a total of 8 credits.
- 543a SUPERVISION IN THE PUBLIC SCHOOLS (4)
Supervision as educational leadership in the development and periodic revision of plans for continuous evaluation and improvement of school practice.
- 543b SEMINAR IN SCHOOL PERSONNEL ADMINISTRATION (4)
Prerequisite: permission of department. Professional relationships among certified employees and other school personnel; development and implementation of policies.
- 543c DEVELOPING STAFF AND COMMUNITY RELATIONS (4)
Prerequisite: graduate status or permission of department. Examination of methods and models for assessing, planning, implementing and evaluating both professional development and improving school/community relations programs.
- 544a SYSTEMS APPROACH AND EDUCATIONAL MANAGEMENT (4)
The systems approach as related to educational project planning and management; flow charting, modeling, PERT, simulation and other systems techniques and concepts.
- 544b COMPUTER TECHNOLOGY AND EDUCATION (4)
Prerequisites: Ed 544a and permission of instructor. Utilization of electronic data processing in school management, local school district research, and computer assisted instruction.
- 544c PLANNING FOR INSTRUCTIONAL INNOVATION (4)
Prerequisite: graduate status. Planning and decision-making process as related to successful adoption of educational innovations, processes applied to major instructional systems such as: PLAN, IPI, IGE, IMS and others currently being used for continuous progress learning.
- 545 SEMINAR IN PUBLIC SCHOOL FINANCE (4)
Local-state fiscal arrangements including state subvention formulas; current school budgets; related educational finance procedures.
- 546a SCHOOL PLANT PLANNING (3)
Prerequisite: Ed 541a. Planning school building program through analysis of population trends in the community; relationship of school plant to the educational program; problems in utilization of school facilities.
- 547 READINGS IN SCHOOL ADMINISTRATION (2-5)
Prerequisite: permission of the instructor. Supervised study focusing on one or more selected topics.
- 549 SEMINAR IN SCHOOL ADMINISTRATION (4)
Current and emergent education problems.
- 550 ORGANIZATION AND ADMINISTRATION OF EDUCATIONAL MEDIA PROGRAMS (3)
Prerequisite: Ed 450 or permission of department. Basic problems and principles in establishing and directing an audiovisual center; coordinating, staffing, financing, housing and evaluating the service.
- 551 SEMINAR IN LEARNING RESOURCES (3)
Prerequisite: graduate status and 35 credit hours in the program. Analysis of factors affecting communication utilizing learning resources; relationship between learning resources and learning objectives.
- 555 MIDDLE SCHOOL CURRICULUM DESIGNS AND INSTRUCTIONAL STRATEGIES (3-6)
Prerequisite: teaching experience. Current curriculum designs in middle school programs will be surveyed and selected elements analyzed. Appropriate instructional strategies necessary to facilitate these designs will be studied. The individual class member will select the study of some special major middle school development appropriate to his school curriculum and/or program.
- 556 INTRODUCTION TO STUDENT PERSONNEL ADMINISTRATION (3)
Prerequisite: admission to the program. The services commonly included in student personnel programs of colleges and universities; emphasis on purpose, scope, function and effect of student services; their conceptual framework and relationship to faculty, other administrative offices and students.
- 557a,b,c SEMINARS: COLLEGE STUDENT PERSONNEL ADMINISTRATION (4 ea)
Prerequisite: admission to college Student Personnel Administration program. Intensive examination of purposes, functions and operation of the various services; major issues in student personnel work; observation and participation in research programs appropriate to the various services; major papers and extensive use of case studies.
- 558 STUDENT DEVELOPMENT COUNSELING FOR STUDENT PERSONNEL ADMINISTRATORS (3)
Prerequisite: admission to Student Personnel Administration program or permission of instructor. Consideration of theories and techniques involved in student development counseling, including interviewing, interpersonal communications, and crisis intervention; emphasis on skill acquisition through microtraining techniques.
- 559 RESEARCH IN COLLEGE STUDENT PERSONNEL ADMINISTRATION (1-3)
Prerequisite: admission to Student Personnel Administration program and Ed 501. An in-depth research project in the area of the student's internship in the program.
- 560 SEMINARS IN SPECIAL EDUCATION (2-5)
Prerequisites: graduate status and permission of department. Specific problems and methods for serving exceptional children. Content will vary from summer to summer; hence, the course may be repeated for credit.
- 561 ADVANCED PROBLEMS IN SPECIAL EDUCATION (3-5)
Prerequisite: permission of department. Intensive study of problems in a selected area of special education.
- 562 ETIOLOGY OF MENTAL RETARDATION (3)
Prerequisite: teaching experience or permission of department. Mental retardation; major clinical types whose principal feature is retardation; causes; on-going research into this problem.

- 563 CURRICULUM AND METHODS OF INSTRUCTION FOR THE MENTALLY RETARDED (3)
Prerequisite: Ed 562. Class organization, selection of curriculum content and instructional aids for teaching children having a wide range of mental retardation.
- 564 EDUCATIONAL TECHNIQUES FOR MALADJUSTED CHILDREN (4)
Prerequisite: teaching experience or permission of department. The emotionally disturbed child in the classroom.
- 565 SEMINAR IN EDUCATION OF MALADJUSTED CHILDREN: ADVANCED THEORY (4)
Prerequisites: Ed 360 or equivalent, 463, 564. Analysis of classical and contemporary research in the intervention of behavior disorders; review of state and national legislative and judicial decisions affecting classroom programs; preparation of a model application for basic or applied research, and preparation of a scholarly manuscript for dissemination.
- 566 COUNSELING AND GUIDANCE FOR THE HANDICAPPED CHILD (4)
Prerequisite: enrollment in the graduate program. Application of techniques in guiding and counseling exceptional children and communicating their characteristics to parents and others influential in meeting their needs.
- 570 COMMUNITY EDUCATION (4)
Prerequisite: graduate status or permission of instructor. The development of skills and understandings necessary to organization, programming, curriculum, financing, administration and staffing of community education programs and schools.
- 571 SEMINAR IN COMMUNITY EDUCATION (4)
Prerequisite: Ed 570 or permission of instructor. Advanced study of community education programs; critical review of current and emergent problems and theories.
- 575 ASSESSING EDUCATIONAL QUALITY (3)
Prerequisite: Ed 501 or permission of instructor. Developing criteria and designing procedures for measuring in-put process and product resulting from special or innovative programs, community factors, options in administrative and instructional organizations; for coordinators and research workers in the schools.
- 576 ADULT EDUCATION ADMINISTRATION (5)
Prerequisite: BA 401 or administrative experience and permission of instructor. Planning, organizing, budgeting, staffing adult educational programs in higher educational institutions, museums, libraries and churches.
- 577 LEARNING PROBLEMS OF ADULTS (5)
Prerequisites: Psych 351 and permission of instructor. Identifying needs, motivation, testing and teaching strategies; use of conferences, short courses, residential learning, independent study.
- 578 CURRICULUM PLANNING FOR ADULT EDUCATION PROGRAMS (5)
Prerequisites: graduate standing and permission of instructor. Programming to meet adult needs; analysis of adult life stages, community needs, changing vocational and professional needs; problems of the aging.
- 581 SECONDARY AND ADULT READING PROGRAMS (4)
Prerequisite: baccalaureate degree plus appropriate administrative and/or teaching responsibilities. For administrators, curriculum personnel and experienced teachers in secondary schools and community colleges. Examines present reading education practices, instructional needs of secondary and adult students, innovative programs, materials, staff and curriculum development, evaluation, and guidelines for establishing developmental reading programs.
- 583 READING AND CHILDREN'S LITERATURE (4)
This course is designed to bring together children's books and teaching basic reading skills through these books; emphasis on the selection and analysis of children's books in order to teach reading from beginning or pre-word recognition levels through junior high school.
- 584 PSYCHOLOGY OF READING (4)
(To be taken concurrent with or following Ed 501.) Perceptual and cognitive processes in reading and their implications for reading instruction. Study and interpretation of reading research literature and the application of psychological principles to the design of reading research problems.
- 585 SEMINAR IN READING EDUCATION (3-4)
Prerequisite: permission of instructor. Reading education research and its application to classroom practices, to individual problems in the teaching of reading, to supervision and administration of reading programs, and to the remediation of reading problems.
- 587 IMPROVEMENT OF INSTRUCTION IN READING (4)
Prerequisite: at least one previous course in the teaching of reading or teaching experience. Teaching developmental reading; methods, materials, theory. Letters indicate grade level of emphasis in various sections of the course: (a) primary, (b) intermediate, (c) junior high, (d) senior high.
- 589 SEMINAR IN LANGUAGE ACQUISITION AND READING DEVELOPMENT (4)
Prerequisite: graduate status or teaching experience. Exploration of current theories in language acquisition, linguistics, and psycholinguistics and implications for early childhood education and reading instruction.
- 590 SEMINAR IN DEMONSTRATION TEACHING AND SUPERVISION (3)
Prerequisite: Ed 442 or permission of department. Advanced studies in the principles of supervision, and the utilization of instructional resources and the evaluation and improvement of teaching.
- 592a,b,c FIELD EXPERIENCE IN ADMINISTRATION FOR THE PRINCIPAL (2-6)
Prerequisite: permission of department. For applicants for the Washington State Administrative Credential.
- 592d FIELD EXPERIENCE IN EARLY CHILDHOOD EDUCATION (2-6)
Prerequisite: graduate status and permission of instructor. Supervised field experience in developing, directing, and evaluating early childhood education programs.
- 592e FIELD EXPERIENCE IN ELEMENTARY SCHOOL LEADERSHIP (2-6)
Prerequisite: permission of instructor. Students will select leadership projects on which they work with teachers and other educators in designing, field testing and evaluating innovative school programs, practices, and materials for the elementary school. Faculty supervision.

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- 592f FIELD EXPERIENCE IN STUDENT PERSONNEL ADMINISTRATION (2-6)**
 Prerequisite: admission to Student Personnel Administration program. Supervised field experiences in developing leadership and management skills and competencies in student personnel administration. Students will intern in various offices and programs of college student services. Repeatable to a maximum of 12 credits.
- 592g FIELD EXPERIENCE IN COMMUNITY EDUCATION LEADERSHIP (2-6)**
 Prerequisite: assignment by an educational agency to a role within a community education setting in the public schools, or permission of instructor. Supervised field experiences in developing leadership and management skills and competencies in community education through the public schools. Students will work with teachers, other educators, and community personnel and resources in designing, implementing and evaluating the community school concept and programs appropriate for the designated community.
- 592h,j,k FIELD EXPERIENCE IN ADULT EDUCATION (2-6)**
 Prerequisite: permission of instructor. Supervised field experience in developing, directing or evaluating adult education programs relating to: (h) administration; (j) learning problems of adults; (k) curriculum planning.
- 594e,f,g,h PRACTICUM IN READING DIAGNOSIS AND REMEDIATION (4 ea)**
 Prerequisite or concurrent: Ed 584 or equivalent, and permission of instructor; e,f,g or e,f,h must be taken in sequence. Reading consultant candidates will have consultant opportunities approved by instructor (h).
- 594e Standard diagnostic tests in reading; supervised practice in their use.
- 594f Individual case study; diagnosis and remedial instruction of children with reading problems.
- 594g Advanced practicum in remedial reading instruction.
- 594h Practicum in reading consultant work.
- 594i,k,m PRACTICA IN ACTION RESEARCH (3 ea)**
 Prerequisite: teaching experience and permission of department. 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. Courses must be taken in sequence. S/U grading.
- 594j Practicum in Needs Assessment
 Systematic analysis of pupils' achievement compared to the aspirations of pupils, community and school faculty. Candidates will develop an approved proposal for research which is consistent with the school building's proposal.
- 594k Practicum in Designing and Implementing Strategies for Change
 Identification and analysis of alternatives for meeting identified problems. Selecting and implementing a proposed solution to an identified problem.
- 594m Practicum in Evaluating Educational Programs
 Systematic analysis of apparent effects of program(s) designed to meet specific needs of pupils.
- 596a ADVANCED PRACTICUM: EARLY CHILDHOOD EDUCATION (2-6)**
 Prerequisite: graduate status, 20 quarter hours of appropriate work, teaching experience with young children, or permission of instructor. To be taken concurrently with Ed 531. Individualized practicum in early childhood programs for experienced teachers.
- 596b ADVANCED PRACTICUM IN TEACHING: ELEMENTARY SCHOOL (2-6)**
 Prerequisites: graduate status and 20 quarter hours of approved course work. Supervised experience for the improvement of teaching at the elementary school level. Participants will select an area of concentration, develop plans and procedures for improvement of instruction, and submit a plan for classroom implementation and evaluation.
- 596c ADVANCED PRACTICUM: SECONDARY EDUCATION (2-6)**
 Prerequisite: graduate status and 20 quarter hours of approved course work. Supervised experience for the improvement of teaching in the secondary school. Participants will 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.
- 597f CURRENT TRENDS IN MEDIA/LIBRARY CENTERS (3)**
 Prerequisite: master's degree program or fifth year program and librarian position. Exploring new concepts in information storage and retrieval. Areas to be studied include: micrographics, multi-media, systems and non-print material.
- 597g ADMINISTRATION AND THE INTERNATIONAL SCHOOL (2-4)**
 Prerequisite: admission to the Master of Education program. Introduction and overview of administrative organizations, practices and procedures employed in the schools of Germany, France and England. The potential of Europe as an educational resource will be explored.
- 597h STUDIES IN EUROPEAN EDUCATION ADMINISTRATION: GERMAN (4)**
 Prerequisite: admission to the Master of Education degree program. An intensive study of the organization of schools of West Germany with particular attention to the administration and supervision of staff and curriculum.
- 597j SPECIAL PROJECTS IN READING AND LANGUAGE ACQUISITIONS (4)**
 Prerequisite: Ed 589. Designing, implementation and reporting controlled observations of children's reading or language performances, and relating the observations to psycholinguistic theory. (Winter 1976)
- 597k DEVELOPING STAFF AND COMMUNITY RELATIONS (4)**
 Prerequisite: graduate status. Examination of methods and models for assessing, planning, implementing and evaluating both professional development and improving school/community relations programs. (Winter 1976)
- 598 PRACTICUM IN SPECIAL EDUCATION (4)**
 Individualized experience in programs for exceptional children for students having had teaching experience with handicapped children.
- 600 SPECIAL PROJECTS IN EDUCATION (2-5)**
 Prerequisites: permission of the department and master's degree. Supervised individual study, research, or project development. Prior to admission a description of project or research proposal must be presented to faculty adviser.
- 632 ADVANCED SEMINAR IN ELEMENTARY EDUCATION (4)**
 Prerequisites: completion of elementary concentration requirements (Ed 422 or 521, and 512, 513). Advanced study of topics, problems and issues in elementary education through group process procedures. Serves as a capstone seminar in preparation for area examination.

- 633 SEMINAR: PROBLEMS IN EARLY CHILDHOOD EDUCATION (3)
Prerequisite: Ed 531, 596a. Specific problems will be drawn from the field and content organized according to student need.
- 639 CURRENT TOPICS IN EDUCATION (1-5)
Prerequisite: master's degree and permission of instructor. Studies of current topics in any one of the following areas:
- (a) Adult Education Administration
 - (b) Educational Administration
 - (c) Reading
 - (d) Foundations
 - (e) Learning Resources/Library Science
 - (f) Secondary Education
 - (g) Special Education
 - (h) Student Personnel Administration
 - (i) Elementary Education
 - (k) Early Childhood Education
 - (n) Community Education
 - (p) Interprogram Topics
- 642a,b,c,d FIELD PROJECT IN EDUCATIONAL ADMINISTRATION (4)
Prerequisites: master's degree, permission of the instructor, and submission of a one-page outline indicating scope of proposed project. Design, implementation and evaluation of a field project in educational administration. Course may be repeated once for a total of eight (8) credits.
- 644a,b,c SEMINARS IN EDUCATIONAL MANAGEMENT: ADVANCED SYSTEMS THEORY (5 ea)
- 644a Advanced Educational Systems Analysis
Prerequisite: master's degree and permission of instructor. The identification of high priority needs within a school system and the application of systems theory to problem solution. Management tools such as modeling, Program Evaluation Review Technique (PERT) scheduling, Management By Objectives (MBO), Management Information Systems (MIS), Program Planning Budgeting Systems (PPBS), etc., will be considered as plausible means/tools to assist the educational manager in performing his management functions.
- 644b Educational Change: Theory and Practice
Prerequisite: master's degree and Ed 644a. Analysis of appropriate strategies and tactics for effecting planned change in public schools and/or districts. An emphasis is placed on model building related to systematic change in the management and program structure.
- 644c Management by Objectives: Accountability
Prerequisite: master's degree and Ed 644a. The establishment of management objectives at various levels (system-process, input, output, etc. for the express purpose of evaluating people and/or programs thus effecting accountability).
- 647a,b,c,d SEMINARS FOR SCHOOL PRINCIPALS (4 ea)
Prerequisite: master's degree, applicant for a Washington State Principal's Credential, and/or permission of instructor. A series of seminars on current problems and issues facing school administrators.
- 676 INSTRUCTIONAL SYSTEMS THEORY AND COMMUNITY COLLEGE INSTRUCTION (4-6)
Prerequisites: master's degree and/or permission of instructor. Instructional Systems Theory with application to the development of competency-based programs for community college instruction. Students will plan, write and evaluate a short competency-based program for an instructional problem in their own area of teaching.
- 686 SEMINAR FOR READING SPECIALISTS (4)
Prerequisite: admission to candidacy. Development and execution of a research study in the area of reading. Selected readings of a minimum of eight books concerned with recent trends in reading education.
- 690 FIELD PROJECT OR THESIS (6)
Prerequisite: approval of the student's graduate committee. Field project or a research study under the direction of a faculty committee. The field project or thesis may be done off-campus between periods of residence work.
- 692a,b,c FIELD EXPERIENCE IN ADMINISTRATION FOR THE PRINCIPAL (2-6)
Prerequisite: master's degree and permission of department. For applicants for the Washington State Administrative Credential.

LIBRARY SCIENCE

Library Science constitutes an instructional unit attached to the Department of Education.

Employment opportunities in librarianship are good. As long as the information explosion continues, there will be demand for trained personnel to organize and service the variety of materials being produced. To qualify as a professional school librarian the student must meet requirements for the provisional teaching certificate as well as minimum state standards set forth in the minors below.

It should be noted that the term library (or learning resources) includes, in addition to traditional printed material, films, filmstrips, recordings, tapes and any other media for storing, transmitting or retrieving information. Western includes them in its library training program.

Minor—Library Science Elementary

- 24 credits selected under advisement from the following:
- Lib Sci 309, 401, 402, 403, 404, 405, 407, 497a
 - Education 422, 445e, 450, 451

Minor—Library Science Secondary

- 24 credits selected under advisement from the following:
- Lib Sci 308, 401, 402, 403, 404, 407, 497a
 - Education 425, 445e, 450, 451

Education

Fifth Year Program for Learning Resources Specialists

The following program is recommended for teachers preparing to become specialists in learning resources:

A. Common Core

- Lib Sci 401, The Library in the School
- Ed 450, Audiovisual Communications: Basic
- Ed 451, Audiovisual Communications: Advanced
- Ed 541b, Public School Organization and Administration
- Tech 240, Visual Communications and Graphic Arts

B. One concentration from the following (some expertise in the area selected is prerequisite):

- Library Science:* Lib Sci 402, 403, 404, 405, 407; Education 422, 425
- Administration:* Education 422, 425, 475, 543a, 545a, 546, 550
- Graphics:* Technology 419, 440, 449, 469, 540, 544

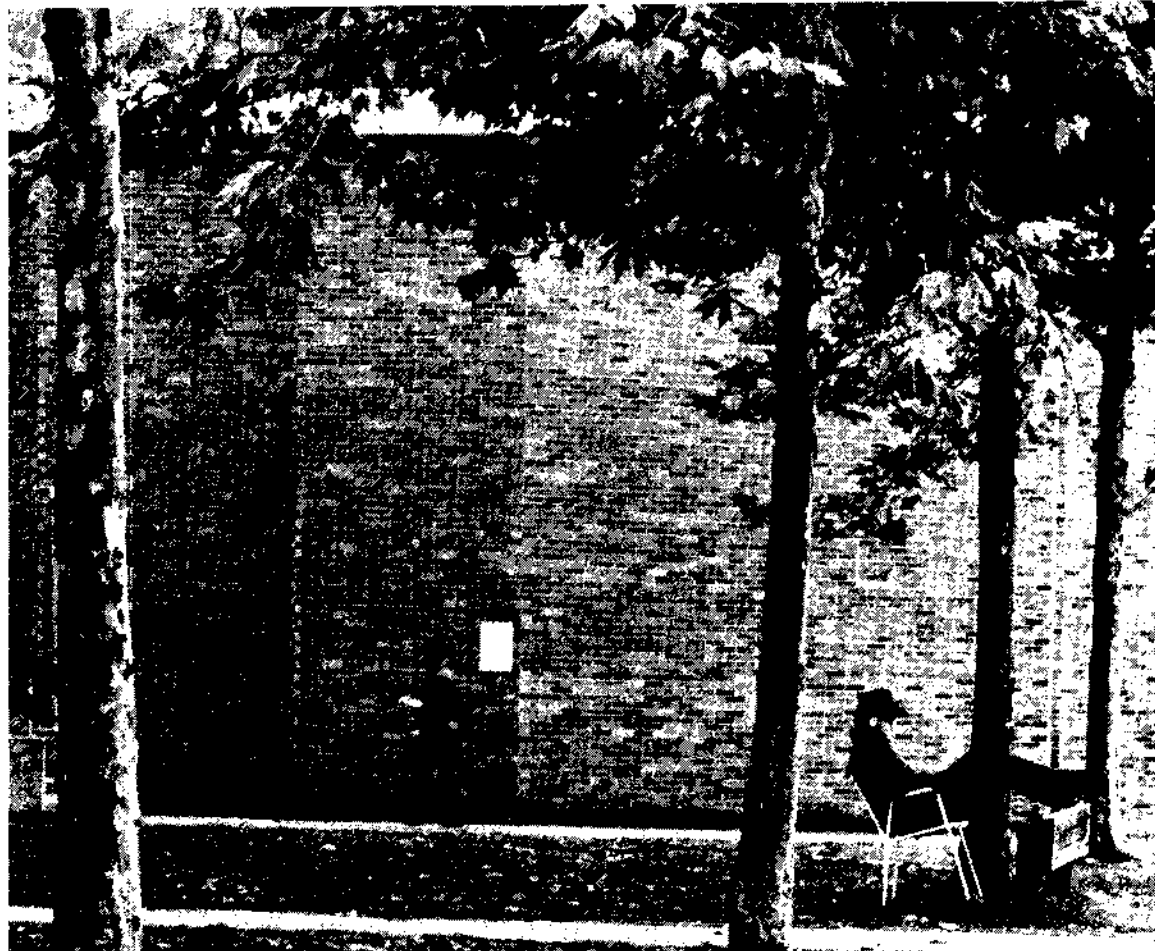
Students interested in the above areas should seek advisement in Miller Hall 177.

COURSES IN LIBRARY SCIENCE

- 126 LIBRARY ORIENTATION (1)
Introduction to books and libraries, and to the Wilson Library in particular, with emphasis on effective use of standard reference tools.
- 308 BOOK SELECTION (3)
Young adult and adult books suitable for libraries.

- 309 STORYTELLING (3)
Prerequisite: Library Science 305 or permission of instructor. Selection, adaptation, and presentation of stories for elementary school children.
- 401 THE LIBRARY IN THE SCHOOL (3)
The organization and maintenance of effective materials-centered libraries in elementary and secondary schools.
- 402 ORGANIZATION OF MATERIALS (3)
Principles of classification and cataloging; making unit cards, adapting printed cards, and organizing a shelf list and dictionary catalog.
- 403 BASIC INFORMATION SOURCES (3)
Evaluation of basic information sources and practice in their use.
- 404 THE LIBRARY IN THE SOCIAL ORDER (3)
Social, educational, and cultural implications of the role of the library in society.
- 405 BOOKS AND MATERIALS FOR ELEMENTARY SCHOOLS (4)
Prerequisite: permission of instructor. Reading and evaluation of books and learning resource materials available to children at the elementary level; emphasizes wide reading, criteria for book selection, critical analysis of books and materials, use of library resource materials, correlation of books and materials with the curriculum, study of current content trends, and the employment of ways to use books and materials innovatively.
- 407 BOOKS AND MATERIALS FOR YOUNG ADULTS (4)
Prerequisite: permission of instructor. Reading, discussion, and uses of books relevant to junior high/middle school student and his curriculum; in-depth study of multicultural literature, realistic fiction, self-concept literature, mystical fiction and poetry; critical analysis of selected pieces of adolescent literature.
- 497a THE WRITING AND ILLUSTRATING OF CHILDREN'S BOOKS (4)
Prerequisites: Lib Sci 405 or permission of instructor. An analysis of the illustrations and writing of children's and adolescents' literature; techniques of composition and illustrations fundamental in writing, illustrating, and binding a piece of elementary or adolescent literature.





ENGLISH

College of Arts and Sciences

The Department of English offers majors in English for the liberal arts student and for the teacher education student.

Under its new curriculum in English, the department offers students a highly flexible program in which they can construct a major that meets their own educational goals. The core of the major is the historical and critical study of literature, but the department also has strong offerings in creative writing, linguistic study of English and English education.

A liberal arts English major has been one of the dominant liberal arts degrees, acquainting the student as it does with the literature of past and present, providing education in critical analysis and effective expression. As a result, the liberal arts English major has provided graduates with a sound basis for pursuing careers in law, publishing, certain positions in business, and a number of non-technical government positions.

In teacher education, the department prepares majors for teaching at the secondary and the elementary levels. Students are urged to support their major by means of auxiliary courses in drama, reading, linguistics, speech, journalism, or work in subjects that are similarly related to English language and literature.

ENGLISH FACULTY

- GOLDEN L. LARSEN** (1956) Chairman.
Associate Professor. BS, MS, Utah State University; PhD, University of Washington.
- ELIZABETH BOWMAN** (1966) Associate Professor of English and Linguistics. AM, PhD, University of Chicago.
- ROBERT D. BROWN** (1965) Professor of English. AB, MA, PhD, Indiana University.
- ***MEREDITH B. CARY** (1964) Professor. BA, Central Missouri State College; MALS, University of Michigan; MA, Michigan State University; PhD, University of Washington.

**On Sabbatical Leave Winter 1978 & Winter 1979*

English

- MARJORIE J. DONKER (1967) Associate Professor. BA, Western Washington State College; MA, PhD, University of Washington.
- RICHARD L. FRANCIS (1969) Associate Professor. AB, Kenyon College; MA, Duke University; PhD, Yale University.
- EUGENE K. GARBER (1968) Professor. BA, Tulane University; MA, PhD, University of Iowa.
- ROBERT E. HUFF (1964) Professor. AB, MA, Wayne State University.
- KENNETH B. INNISS (1966) Associate Professor. AB, AM, Indiana University; PhD, University of Kansas.
- ELLWOOD G. JOHNSON (1963) Associate Professor. BA, MA, PhD, University of Washington.
- ***WILLIAM C. KEEP (1966) Associate Professor. BA, PhD, University of Washington.
- W. ROBERT LAWYER (1960) Associate Professor of English and Director of the Library. BA, PhD, University of Washington.
- LAWRENCE L. LEE (1962) Professor. BA, MA, PhD, University of Utah.
- TOMMY LEE (1972) Assistant Professor. BA, MA, University of Washington.
- MERRILL E. LEWIS (1962) Professor. BA, MA, University of Oregon; PhD, University of Utah.
- REED B. MERRILL (1969) Associate Professor. BS, MA, University of Utah; PhD, University of Colorado.
- GEORGE M. MULDROW (1960) Professor. BJ, MA, University of Missouri; PhD, Stanford University.
- **JAMES H. O'BRIEN (1946) Professor. BA, Seattle University; MA, PhD, University of Washington.
- ROBERT A. PETERS (1964) Professor of English and Linguistics. BA, Ohio State University; MA, Western Reserve University; PhD, University of Pennsylvania.
- MARJORIE RYAN (1961) Professor. AB, MA, University of Michigan; PhD, University of Minnesota.
- KNUTE SKINNER (1962) Professor. AB, Colorado State College; MA, Middlebury College; PhD, University of Iowa.
- KEN M. SYMES (1967) Professor. BA, MA, Utah State University; PhD, University of New Mexico.
- EVELYN C. WRIGHT (1972) Assistant Professor. BS, Illinois State University; MA, PhD, Northwestern University.

BACHELOR OF ARTS

Major 70 credits

This major, appropriate for Bachelor of Arts candidates, consists of these required courses:

- English 304 (4 credits)
- Two courses from English 312a,b,c sequence (8 credits)
- Two courses from English 312d,e,f sequence (8 credits)
- English 316 and 317 (8 credits)
- One course from among English 370 (4); 321 (3); 421 (5); 471 (3)

ELECTIVES: Of the remaining elective hours, at least 15 are to be distributed among courses offered at the 300 and 400 levels. The student may complete the English major in one of several ways: by studying particular periods or authors in either British or American literature in greater

depth; by focusing on departmental offerings in creative writing, linguistics, or rhetoric; or by choosing courses from more than one of these areas. Students should consult with the Director of Undergraduate Studies for further advice.

Minors 24 credits

Except where noted, all minors are appropriate for both Bachelor of Arts and Bachelor of Arts in Education.

A. English 24 credits

(Not open to English majors.)

- English 201, 202, 304
- Electives to total 24 credits*

B. Creative Writing 24 credits

- Two courses from English 201, 202, 304
- Four creative writing courses including work in at least two genres
- Electives under advisement from the 300 and 400 levels

C. Extended Minor 35 credits

(To accompany a history major for those who desire recommendation for a teaching competence combination appropriate for junior high or middle school.)

- English 201, 202, 304, 370, 442
- One of the following groups of courses: English 281, 282, 283; English 316, 317, 318; or three courses from the English 312 series
- Electives under advisement

D. Linguistics 24 credits

- Linguistics 201, 303
- Electives from linguistics, English 370-379 and English 470-479

E. Rhetoric 24 credits

- Two courses in rhetoric from English 325 or 425 series
- English 354
- Electives under advisement from the 300 and 400 level†

*Elementary education minors will take English 370, 440 or 441 and electives. Secondary education minors will take in addition to the above English 370, 442, 474 and electives.

†Especially recommended are English 470, Transformational Grammar; Anth 448, Language and Culture in Society; Speech 205, Argumentation and Debate; Speech 490, Rhetorical Theory and Practice; Greek and Roman; Linguistics 404, Linguistics and Literature.

**On Sabbatical Leave Spring 1978

***On Sabbatical Leave Fall 1977

F. Women's Literature

- English 201—integrated section
- English 217, 338a and 338b
- Electives under advisement, to be selected from the major figures and special topics courses focused on the work of women authors

DEPARTMENTAL HONORS

In addition to the general requirements for all honors students, an English major who wishes to graduate "with honors" must complete one course in the English 430-439 series, one course in criticism, and an upper-division course in philosophy or in literature read in a foreign language.

THE VERTICAL COMPOSITION PROGRAM

These courses are designed to allow the student to improve writing skills progressively throughout the four years of college. They do not constitute a minor; they are available to anyone interested. The courses consist of English 101, 131, 132, 133, 201, 202, 203, 270, 301, 302, 325a, 354, 401, 425a.

BACHELOR OF ARTS IN EDUCATION

Major Secondary 60 credits

- English 304, 316, 317
- Two courses from English 312a,b,c sequence
- Two courses from English 312d,e,f sequence
- English 370, 442, 474
- One course from English 443, 444, or Education 424c,d
- Education 481

The department strongly recommends that students include courses in world literature, Shakespeare, advanced composition, and literary theory and criticism in their electives.

Major Elementary 45 credits

- English 201, 202
- English 304, 370, 440 or 441
- Electives under departmental advisement

Students should consult the Director of Undergraduate Studies or the English education faculty adviser for distribution of electives as well as the *teacher certification requirement in the School of Education listing*.

Interdisciplinary Major Concentration

90 credits (Speech 45 credits & English 45 credits)

English: 45 credits

- English 304
- Two courses from English 312a,b,c
- Two courses from English 312d,e,f
- English 316, 317, 370, 442, 474
- Either English 325 or 425
- Electives

Speech: (See listing under Speech) 45 credits

Minors 24 credits

Except where noted, all minors are appropriate for both Bachelor of Arts and Bachelor of Arts in Education. See Bachelor of Arts listing.

Teaching Competence

Recommendation for teaching competence normally requires completion of the major or interdisciplinary major concentration. An exception is provided through the extended minor listed above. A grade of 2.5 or better in English is required.

GRADUATE STUDY

For concentrations leading to the Master of Education or Master of Arts degree, see *Graduate Bulletin*.

COURSES IN ENGLISH**General College Requirement Courses**

English courses which satisfy GCR requirements are as follows:

Communications: 101, 131, 132, 133, 201, 202, 203, 301, 302, 325a, 425a

Humanities: 131, 132, 133, 216, 231, 238, 262, 281, 282, 283, 338a, 338b, 362, 363, 461j

Non-Western and Minority Culture Studies: 217, 234, 420a

The following entries indicate courses routinely offered by the department. The lettered subheads offer examples of some but not all of the sections of these courses that will be offered during the period of this catalog. For more information about the courses and sections to be offered this year and next, please consult the "Class Schedule," the English Department's "Course Descriptions" and the "Guide for English Majors." The department makes every effort to offer all required courses at least once a year and all courses in the catalog at least once every two years.

100 REVIEW OF SYNTAX AND USAGE (5)

Emphasizes a basic command of standard written English such as correct usage and punctuation, sound sentence and paragraph structure, and avoidance of errors in diction. Graded S/U.

English

- 101 LANGUAGE AND EXPOSITION (4)
May not be taken concurrently with English 100. Practice in expository strategies such as finding information, focusing on a topic, organizing around a thesis, developing an idea, defining an audience; practice of basic expository types such as definition, comparison, classification, and analysis; and the reading of models of expository prose. Students wishing to satisfy Block A of the General College Requirements are urged to enroll in this course during their freshman or sophomore years.
- 131, 132, 133 MASTERPIECES OF WORLD LITERATURE WITH COMPOSITION (4 ea)
Prerequisite: Eng 131 prerequisite to 132; 132 prerequisite to 133. Papers based on readings from classical, medieval, renaissance, neoclassical, romantic and modern literature. Students wishing to satisfy Block A of the General College Requirements are urged to enroll in these courses during their freshman or sophomore years.
- 197a WORKSHOP IN COMPOSITION FOR HIGH SCHOOL STUDENTS (6)
Prerequisite: high school juniors who will be seniors in the fall. With mythology as the subject matter of this course, the process of composing will be emphasized. The techniques of sentence structure and sentence combining will be stressed to develop syntactic fluency.
- 201, 202, 203 (301, 302, 303) CRITICAL INTRODUCTION TO NARRATIVE, DRAMATIC AND LYRICAL LITERATURE (4 ea)
Prerequisite: Eng 101 or equivalent. Primary emphasis on attentive, close reading; secondary emphasis on identification of characteristics of fundamental literary types. Composition is an integral part of these courses.
- 204 WRITING ESSAY EXAMS (1)
A pragmatic approach to analyzing essay questions and organizing essay answers. The course goal would be to sophisticate students about the process of presenting their knowledge in the most advantageous form.
- 211 (311) SURVEY OF BRITISH LITERATURE (5)
211a (311a) The Beginnings to 1625 (Beowulf through the Metaphysicals)
211b (311b) 1625-1837 (Milton through the Romantics)
211c (311c) 1837-1940 (Victorians and Moderns)
- 214 (314) INTRODUCTION TO SHAKESPEARE (5)
Reading and discussion of a selected number of Shakespeare's plays: histories, comedies, tragedies and romances.
- 216 SURVEY OF AMERICAN LITERATURE (5)
- 217 SURVEY OF WOMEN'S LITERATURE (5)
Important women writers of America, Great Britain and Europe will be studied in their literary and historical contexts.
- 218 SURVEY OF CHILDREN'S LITERATURE (5)
Historical survey of books written for children in their literary, social and historical contexts. Lectures, reading and discussion of representative works from the British, American and European traditions.
- 231 STUDIES IN POPULAR LITERATURE (3)
Different types of popular literature will be treated from year to year. Consult the Class Schedule for current offerings.
- 234 INTRODUCTION TO AFRO-AMERICAN LITERATURE (5)
Survey of Afro-American experience and its expression during the past hundred years. Typical writers studied are Chesnut, Dunbar, Johnson, Toomer, McKay, Hughes, Bontemps, Larsen, Hurston, Wright, Ellison, Baldwin, Baraka, McPherson and A. Walker.
- 238 SOCIETY THROUGH ITS FICTION/DRAMA/POETRY (5)
A thematic approach to literature. Different themes will be treated from year to year, showing with various literary forms present society and its problems.
- 262 FILM AND DRAMA (4)
No prerequisite. A study of the relations between mediums. Students will examine the resources of the drama and of film. A nominal lab fee will be charged to cover the cost of films.
- 270 (297a) COMPETENCE AND CONFIDENCE IN STANDARD AMERICAN ENGLISH USAGE (3)
Lectures and recitations dealing with standard American English usage (idioms, stylistics, punctuation, the nature of correctness). Not applicable as part of the English major or minor. S/U grading.
- 281, 282, 283 WESTERN WORLD LITERATURE (5 ea)
Reading from classical and medieval, renaissance and neoclassical, romantic and modern literature. For students electing Option II for the general education humanities requirement; not open to students with credit in Gen St 121, 122, 123.
- *****
- For English majors and minors, all upper-division literature courses have English 304 as a prerequisite.*
- *****
- 300 DIRECTED INDIVIDUAL STUDY (1-3)
Prerequisite: permission of instructor and department chairman. Individual study of a topic not normally covered in a formal course.
- 301 (201) READING AND EXPOSITION (4)
Prerequisite: Eng 101 or equivalent. A course that emphasizes (1) advanced command of the language such as mastering a variety of sentence patterns and selecting appropriate diction, metaphors and levels of language; (2) advanced rhetorical strategies such as mastering complex organization schemes and mastering forms of the essay such as classification, definition, analysis, process, analogy, comparison and contrast, and cause and effect; (3) use of external evidence in composition; work in précis, paraphrase, and documentation from models of prose.
- 302 (202) READING AND ARGUMENTATION (4)
Prerequisite: Eng 101 or equivalent. An advanced writing course which deals exclusively with argument as reading and writing problems, and allows for a variety of topical material.
- 304 READING AND WRITING ABOUT POETRY (4)
Prerequisite: Eng 101 or equivalent. The course introduces the prospective English major to the vocabulary and grammar of technical discourse about poetry through the close reading of a variety of poetic texts and the writing of a number of expository essays.
- STUDIES IN LITERARY HISTORY—BRITISH. Number series 310-314 include literature courses with an historical emphasis. Number series 410-414 includes advanced courses with an historical emphasis characterized by more sharply focused and intense study than on the 300 level.*
- 312 PERIODS OF BRITISH LITERATURE (4 ea)
312a The Age of Beowulf and Chaucer
312b The Age of Shakespeare and Milton
312c The Age of Pope and Swift
312d The Age of Keats and Shelley
312e The Age of Eliot and Hardy
312f The Age of Yeats and Thomas

315 (415) STUDIES IN CONTEMPORARY BRITISH AND AMERICAN LITERATURE (4)

Different sections of this course deal with developments in fiction, drama and poetry since 1900. See class schedule for offerings during time of this catalog. Course may be elected more than once.

STUDIES IN LITERARY HISTORY--AMERICAN. Number series 316-319 includes literature courses with an historical emphasis. Number series 416-419 includes advanced courses with an historical emphasis characterized by more sharply focused and intense study than on the 300 level.

316, 317, 318 AMERICAN LITERARY HISTORY (4 ea)

American literature from its beginnings to the present with special attention to the cultural diversity out of which the literature emerged.

- 316 (317a,b) American Literature to 1850
317 (317b,c) American Literature, 1850 to 1914
318 (317d) American Literature, 1914 to the present

319 DEVELOPMENT OF AMERICAN LITERARY FORMS

- 319a American Novel to 1900 (5)
319b American Novel Since 1900 (5)
319c American Short Fiction (4)
319d Modern American Drama (3)
(Also offered as Th/D 426.)
319e Modern American Poetry (4)

STUDIES IN LITERARY HISTORY--GENERAL.

320a (397c) INTRODUCTION TO MODERN CANADIAN LITERATURE (4)

Reading of selected works, principally 20th century fiction from English Canada, with some attention to French writers in translation. Emphasis on the social and historical context of Canadian Literature.

STUDIES IN LITERARY THEORY AND CRITICISM. Number series 321-329 includes courses with a theoretical or critical emphasis. Number series 421-429 includes similar courses characterized by more sharply focused and intense study than on the 300 level.

321 (386) THEORY OF LITERATURE (3)

The nature and judgment of literature as a form of art; principles and problems; writing of critical studies.

325a (425a) INTRODUCTION TO RHETORIC (3)

Prerequisite: Eng 101. Rationale of informative and persuasive writing; classical and modern treatments of invention, arrangement, prose style.

STUDIES IN LITERARY GENRE AND LITERARY THEME. Number series 330-339 includes studies in themes, motifs and conceptions in literature. Number series 430-439 includes similar studies characterized by more sharply focused and intense study than on the 300 level.

332 FORMS OF THE NOVEL (4)

- 332a (332b) The Rogue Novel
Traditional and contemporary picaresque literature, emphasizing both continuity and change.

333 FORMS OF SHORT PROSE FICTION (4)

- 333a Masterpieces of the Short Story and the Tale

337 FORMS OF SATIRE (4)

- 337a Satiric Fiction
Varieties of satiric prose, mainly modern, with some attention to satiric theory.

338 LITERARY THEMES

Prerequisite: Eng 101.

- 338a Women and Literature (4)
Studies in several major writers: American, English and continental.
338b Sex Roles in Contemporary Literature (4)
Analysis of sex roles represented in contemporary literature.
338c Women and Drama (4)
Readings and discussion of selected dramas by women, principally British and American writers of the twentieth century.

STUDIES IN LITERARY EXPRESSION. Number series 350-359 includes courses in creative writing, advanced composition, personal essay, and argumentation. Number series 450-459 includes similar courses characterized by more sharply focused and intense study than on the 300 level. All these courses are graded S/U.

351 INTRODUCTION TO FICTION WRITING (4)

An introductory course open to students who have not previously taken a college course in fiction writing. Study of appropriate models. (Note: this course is not a prerequisite to 451a,b,c.) S/U grading only.

353 INTRODUCTION TO POETRY WRITING (4)

An introductory course in poetry writing. Open to students who have not previously taken a college course in poetry writing. Study of appropriate models. (Note: this course is not a prerequisite for 453a,b,c.) S/U grading only.

354 INTRODUCTION TO THE WRITING OF NON-FICTION PROSE (3)

Prerequisite: Eng 301 or 302. Opportunity for writers to develop skills on a mature level. The personal essay, biographical sketch, extended argument and other forms. Individual projects. Study of appropriate models. S/U grading only.

STUDIES IN LITERATURE, COMBINED APPROACHES. Number series 360-369 includes courses which combine two or more of the modes of study listed above. Number series 460-469 are advanced courses characterized by a more sharply focused and intense study than on the 300 level.

361 THE LITERATURE OF AFRO-AMERICA (5)

Investigation of ways Afro-American writers respond to social realities that seem to them unsatisfactory or unjust, and literary forms they adopt to embody their views and solutions, whether by analysis, satire, protest, propaganda, or dramatic characterization.

362 THE BIBLE AS LITERATURE (5)

Prerequisite: Eng 101. Cultural backgrounds of the Old and New Testaments, together with a literary analysis of selected passages.

363 (263) CULTURAL HEROES AND ANTI-HEROES IN AMERICAN LITERATURE (4)

Prerequisite: Eng 101 and a course in American literature or American history, or myth and folklore. The study of various heroic types of myth, legend and folklore represented in both serious and popular literature and in folklore.

364 CONTEMPORARY ISSUES IN LITERATURE: FICTION INTO FILM (4)

Prerequisite: Speech 345 recommended. A nominal lab fee will be charged to cover the cost of films. An examination of the relationship between fiction and film. Students will view films based on works of fiction and discuss the nature of each medium.

English

365 SEX ROLES: TRADITIONS, STEREOTYPES AND LIBERATION (4)

Prerequisite: one course from following: Anth 201, Soc 202, Eng 201, 202, 203. This course will use the tools of anthropology and literary criticism to determine the extent to which we make unconscious assumptions about sex roles. Stereotypes will be examined in the context of their relation to value systems, and their development will be traced through the history of the women's movement in America. (Also listed as Anth 365.) Offered summer only.

STUDIES IN ENGLISH LANGUAGE. English 370 prerequisite to all other courses in this section. Courses in American English, the history of the English language, transformational grammars, dialects, etc., are included in the number series 370-379 and 470-479.

370 INTRODUCTION TO AMERICAN ENGLISH (4)

Overview of various topics: history of the English language, sound system of English, structural morphology, some sentence transformations, English dictionaries, the writing system, American English dialects, characteristics of language, standard and non-standard English. Designed primarily for teaching candidates.

397d PROFESSIONAL CAREER COMMUNICATION (3)

Prerequisite: Eng 101, Speech 100. This interdisciplinary course orients students to the world of work, expands their understanding of career opportunities, and gives specific experiences in job-seeking skills (letter writing, resume writing, and interviewing theories and practices). S/U grading. Also listed as Speech 397d.

399a,b,c HONORS TUTORIAL (2-5 ea)

400 DIRECTED INDIVIDUAL STUDY (1-3)

Prerequisite: permission of instructor and of the department chairman. Individual study of a topic not normally covered in formal courses.

401 TECHNICAL AND BUSINESS REPORT WRITING (3)

Prerequisites: Eng 101 and upper-division standing. Theory and practice of writing with objectivity and clarity for business, industry and government. Students will work with a variety of formats and kinds of papers.

STUDIES IN LITERARY HISTORY--BRITISH. Number series 410-415 includes advanced courses with an historical emphasis characterized by more sharply focused and intense study than on the 300 level.

410 PERIOD STUDIES (2-5)

Different literary periods and movements will be treated from year to year.

410a Modern Irish Literature (4)

412 DEVELOPMENT OF BRITISH DRAMA (3 ea)

412a Medieval and Elizabethan-Jacobean

412b British Drama 1650-1900

412c 20th Century British Drama

Historical and critical study of the British drama, with emphasis upon the greater writers (exclusive of Shakespeare). Also offered as Theatre/Dance 421, 422, 423.

413 DEVELOPMENT OF THE BRITISH NOVEL (5 ea)

413a The Eighteenth Century

413b The Nineteenth Century

413c The Twentieth Century

414a-z STUDIES IN MAJOR BRITISH AUTHORS (3-5)

Various single authors or combinations of authors will be studied from quarter to quarter. The course may be elected more than once. See Class Schedule for the various authors to be studied during the time of the catalog.

STUDIES IN LITERARY HISTORY--AMERICAN. Number series 416-419 includes advanced courses with an historical emphasis characterized by more sharply focused and intense study than on the 300 level.

416 SPECIAL TOPICS IN AMERICAN LITERARY HISTORY (3-5)

416a The West in American Literature (4)

416b The South in American Literature (4)

416c Writing in the Pacific Northwest (3)

417 STUDIES IN MASTERWORKS OF AMERICAN LITERATURE (3 ea)

Research in the biographical/historical/critical backgrounds of American masterpieces.

418a-z STUDIES IN MAJOR AMERICAN WRITERS (4 ea)

Various single authors or combinations of authors will be studied from quarter to quarter. The course may be elected more than once.

STUDIES IN LITERARY HISTORY--GENERAL. The series includes similar courses in 320a-z characterized by more sharply focused and intense study than on the 300 level.

420a STUDIES IN COMMONWEALTH LITERATURE (4)

Comparative study of the new literatures in English which have emerged from Africa, Australia, Canada, India, West Indies since World War II. Such authors as Achebe, White, Soyinka, Laurence, Naipaul.

STUDIES IN LITERARY THEORY AND CRITICISM. Number series 421-429 includes similar courses to 321-329 characterized by more sharply focused and intense study than on the 300 level.

421 HISTORY OF LITERARY CRITICISM (5)

Prerequisite: 15 credits in literature. Reading and analysis of major documents of criticism, from Plato and Aristotle to 20th century critics.

425a RHETORICAL ANALYSIS (3)

Prerequisite: English 101. Analysis of semantics, style and tone; emphasis on expository writing.

STUDIES IN LITERARY GENRE AND LITERARY THEME. Number series 430-439 includes similar studies to 330-339 characterized by more sharply focused and intense study than on the 300 level.

432 STUDIES IN FORMS OF THE NOVEL (3)

432a The Novel of Ideas

The philosophical novels of such writers as Diderot, Dostoevsky, Kafka, Koestler, Sartre, Camus, Kazantzakis, Robbe-Grillet.

439 MAIN CURRENTS IN LITERATURE (5 ea)

439a Classical Backgrounds

439b Romanticism

439c Realism and Naturalism

439d Post-Realism

STUDIES IN ENGLISH EDUCATION. Number series 440-449.

440 (441a) ENGLISH FOR THE ELEMENTARY SCHOOL (4)

Teaching reading, writing, speaking and listening; formal and informal methods; textbooks and materials.

441 (441b) WORLD LITERATURE FOR THE ELEMENTARY AND MIDDLE SCHOOL TEACHERS (4)

Myth, legend, folk literature, epic, fairy tales and modern novels for children.

- 442 (446b) COMPOSITION FOR SECONDARY TEACHERS (4)
Practice and instruction to improve the writing of students; emphasis on the nature of composition and skill in analyzing non-professional expository writing.
- 443 LANGUAGE IN SCHOOL PROGRAMS (4)
Prerequisite: Eng 370. Knowledge of the English language applied to the teaching of English and language arts, grades K-12.
- 444 (445e) LITERATURE IN SECONDARY SCHOOLS (4)
Survey of resources for teaching literature in secondary schools, methods and practice in teaching literary works in classrooms.
- 445 (445a) CURRENT TRENDS IN ENGLISH EDUCATION (1-5)
Selected topics in the current developments in literature, composition and linguistics for the elementary and middle school classroom.
- 446 (445c) WORKSHOP IN THE TEACHING OF ENGLISH (3-5)
Practical work in the teaching of English.
- 447 (497m) CONFERENCE ON CHILDREN'S LITERATURE (1-3)
Prerequisite: junior status or experience as teachers, librarians or writers. A conference consisting of lectures, demonstrations and small group meetings. Also listed as Library Science 445a.
- STUDIES IN LITERARY EXPRESSION. Number series 450-459 includes courses similar to 350-359 characterized by more sharply focused and intense study than the 300 level. All these courses are graded S/U.*
- 451a,b,c CREATIVE WRITING WORKSHOP: FICTION (4 ea)
Opportunity for disciplined expression in writing fiction. Study of appropriate models. May be repeated as a,b,c with a limit of one course per quarter. S/U grading only.
- 452a,b,c CREATIVE WRITING WORKSHOP: DRAMA (4 ea)
Opportunity for disciplined expression in writing drama for stage, film, television, or other media. Study of appropriate models. May be repeated as a,b,c with a limit of one course per quarter. S/U grading only. (Also offered as Theatre/Dance 485, 486, 487.)
- 453a,b,c CREATIVE WRITING WORKSHOP: POETRY (4 ea)
Opportunity for disciplined expression in writing poetry. Study of appropriate models. May be repeated as a,b,c with a limit of one course per quarter. S/U grading only.
- 455 CREATIVE WRITING SEMINAR (4)
Prerequisite: permission of instructor. Normally restricted to students who have had considerable writing experience. Team taught. Open to students working in any genre, including non-fiction prose. Such activities as group discussions, readings, performances and publication of a class magazine will be encouraged. Study of appropriate models. S/U grading only.
- 456 (461c) EXAMINING AND COMPOSING POETIC FORMS (4)
This course combines the approaches of genre study and literary expression.
- STUDIES IN LITERATURE, COMBINED APPROACHES. Number series 460-469 are advanced courses characterized by a more sharply focused and intense study than on the 300 level.*
- 461a MODERN LITERATURE IN TRANSLATION (3)
Prerequisite: 15 credits in literature.
- 461b MYTH AND MODERN MAN (4)
Prerequisite: Eng 101. A basic study of myth from several vantages: comparative religion, psychology, anthropology and philosophy. The application of myth analysis to the work of selected writers, like James Joyce, who used mythic motifs.
- 461c LITERATURE AND PSYCHOANALYSIS (5)
Prerequisite: Eng 101. Influence of psychoanalytic theory on the development of modern literature, aesthetics and criticism.
- 461d CURRENT AMERICAN LYRIC POETRY (3)
Prerequisite: 15 credits in literature.
- 461j THE AFRO-AMERICAN AND THE LITERARY IMAGINATION (5)
Prerequisite: Eng 101. Study of Afro writers or ways various American writers have portrayed Afro-American's image, social role, psychology, etc. Typical writers studied are Dixon, Chesnut, Stowe, Melville, Whitman, Twain, Dreiser, Toomer, Wright, Faulkner, Ellison.
- 463 (483) SOCIAL CHANGE AND THE MORAL ORDER IN RECENT LITERATURE (4)
Also offered as Phil 483 and Anth 483. Study of recent works of fiction and non-fiction.
- STUDIES IN ENGLISH LANGUAGE. English 370 prerequisite to all other courses in this section. Courses in American English, the history of the English language, transformational grammars, dialects, etc., are included in the number series 370-379 and 470-479.*
- 470 TRANSFORMATIONAL GRAMMAR (3)
Introduction to phrase structure generation, sentence transformations, lexical and phonological features.
- 471 HISTORY OF THE ENGLISH LANGUAGE (3)
The historical development of the English language; phonology, morphology, syntax, semantics.
- 472 AMERICAN ENGLISH DIALECTS (3)
A study of the regional dialects of American English and their historical development.
- 473 VARIETIES OF NON-STANDARD ENGLISH (3)
Survey of the characteristics of the non-standard English of White, Black and Spanish-American speakers. Designed primarily for teacher education.
- 474 ENGLISH USAGE (3)
Survey of standard American English usage. Designed primarily for teacher candidates.
- 499a,b,c HONORS TUTORIAL (2-5 ea)
Registration in the 500-level courses requires graduate status and departmental approval. An adequate background (normally an undergraduate major or minor in English), and the ability to do independent work are prerequisites. Attention will usually be given to a limited topic: one writer or a small group of writers, selected works, a single form.
- 500 DIRECTED INDIVIDUAL STUDY (1-3)
Research on a topic not included in formal courses. This course may be taken only once, unless permission is granted by the Graduate Studies Committee.
- 501 INTRODUCTION TO GRADUATE STUDY IN ENGLISH (5)
Required of all candidates for the Master of Arts. No M.A. student is admitted to candidacy until he or she has completed 501.

English

Ten credits in creative writing courses are required of all M.A. students submitting a creative writing thesis, but no more than ten credits (exclusive of thesis credit) may be applied toward the minimum number of credits required for the degree. Registration for thesis credit may be scheduled, with approval of the department, at any time following the first quarter in residence.

- 502a FICTION WRITING SEMINAR (5)
Individual projects in fiction will be submitted for group discussion. Recently published works of fiction will be studied for examination of originality of style.
- 502b ADVANCED FICTION WRITING SEMINAR (5)
Prerequisite: Eng 502a or permission of instructor. Individual projects in the development of a finished manuscript.
- 503a,b SEMINAR IN PLAYWRITING (3)
Individual projects in dramatic writing submitted for group discussion. Also offered as Theatre/Dance 585.
- 504a POETRY WRITING SEMINAR (5)
Individual projects in poetry will be submitted for group discussion. Recently published volumes of poetry will be studied for examination of originality of styles.
- 504b ADVANCED POETRY WRITING SEMINAR (5)
Prerequisite: Eng 504a or permission of instructor. Individual projects in the development of an original idiom.
- 510 SEMINAR IN RHETORIC (5)
Rhetorical theory and criticism. The classical tradition and modern developments. Applications for the study and teaching of language and literature.
- 513 SEMINAR IN TEACHING COLLEGE COMPOSITION (2)
Prerequisite: appointment as a teaching assistant or permission of the instructor. Elective. Grades: S and U. Offered once a year in the fall.

In the following literature and linguistics seminars (with the exception of 541, 543 and 545), the subject matter covered will vary from year to year depending on the instructor and on student interest.

- 520 SEMINAR IN ANGLO-SAXON LITERATURE (5)
- 521 SEMINAR IN MEDIEVAL LITERATURE (5)
- 522 SEMINAR IN 16-17th CENTURY LITERATURE (5)
- 523 SEMINAR IN 18th CENTURY LITERATURE (5)
- 524 SEMINAR IN ROMANTIC LITERATURE (5)
- 525 SEMINAR IN VICTORIAN LITERATURE (5)
- 526 SEMINAR IN MODERN LITERATURE (5)
- 531 SEMINAR IN AMERICAN LITERATURE: BEGINNINGS TO 1860 (5)
- 532 SEMINAR IN AMERICAN LITERATURE: 1860 TO PRESENT (5)
- 541 SEMINAR IN CHAUCER (5)
- 543 SEMINAR IN SHAKESPEARE (5)
- 545 SEMINAR IN MILTON (5)
- 560 SEMINAR IN LITERARY FORM (5)
- 587 SEMINAR IN LITERARY CRITICISM (5)

- 594 PRACTICUM IN COLLEGE TEACHING (2)
Prerequisite: graduate status. Cannot be taken by student who has already taken Eng 596. Supervised classroom experience beyond that offered by Eng 513. S/U grading only.
- 595 SEMINAR IN ENGLISH IN THE TWO-YEAR COLLEGE (4)
Prerequisite: admission to departmental M.A. program.
- 596 INTERNSHIP IN ENGLISH IN THE TWO-YEAR COLLEGE (10)
Prerequisite: English 595.
- 598 SPECIAL PROJECTS IN THE TEACHING OF ENGLISH (1-3)
Prerequisite (or concurrent): Eng 513 or Eng 595, or teaching experience. Supervised teaching of composition in a small group or a workshop situation.
- 600 DIRECTED INDEPENDENT RESEARCH (2-4)
Prerequisite: advancement to candidacy. May be taken twice and for a total of six hours.
- 690 WRITING REQUIREMENT (5)
With the approval of the department, a student may fulfill the writing requirement in one of two ways. He may submit a scholarly thesis or a creative writing thesis. Approval for the way in which a student meets English 690 is generally given at the time of his admission to candidacy.





ETHNIC STUDIES

At the time of going to press, the Ethnic Studies Program had not been formally assigned to a college. Some courses and requirements may change as a result of the assignment. Students should check with the Registrar's Office for further information.

The program in ethnic studies is based on the socio-cultural experiences of Chicanos, American Indians, Asian Americans and Blacks. However, the importance of examining the relationship of ethnicity to the American society has extended the boundaries of the program into more general courses not limited to the study of only a few ethnic groups.

The program stresses the American experience as the basic context for the study of ethnicity and ethnic groups, but, increasingly, historical and cultural forces which are neither American nor Western are traced and explored for their cultural

influences in an attempt to understand the conflicts between majority and minority groups and their possible resolutions.

The instructional program is interdisciplinary; the traditional disciplines within the humanities and the social sciences are utilized in order to interpret and understand the ethnic experience. Students should develop a program of studies with the help of an adviser.

Three programs are offered: (1) the ethnic studies major; (2) the minor which complements some other area of study at Western; (3) the student-designed major.

As a means of providing information and ideas about ethnicity, *The Journal of Ethnic Studies* is published quarterly treating such topics as religion and ethnicity, bi-racial politics, and the effort of self-definition by specific ethnic minority groups.

Ethnic Studies

ETHNIC STUDIES FACULTY

- RAUL ARELLANO (1972) Associate Professor. BA, MA, Boston University; MA, University of Washington.
- JESSE HIRAOKA (1972) Professor of General Studies/Ethnic Studies. BA, Roosevelt University; MA, University of Chicago; PhD, Northwestern University.
- HYUNG-CHAN KIM (1971) Associate Professor of Education/Ethnic Studies. BA, Hankuk University for Foreign Studies; BA, MA, EdD, George Peabody College.
- PAMELA J. SMITH (1972) Assistant Professor. BA, Seattle Pacific College; MA, Western Washington State College.
- JEFFREY D. WILNER (1971) Assistant Professor. BA, Roosevelt University; MA, University of Washington.

BACHELOR OF ARTS

Major—Ethnic Studies 55 credits

- Introductory courses (9 credits)
- Comparative cultural studies (10 credits)
- Remaining credits selected by student in Black, Chicano, Native American Indian, Asian American or comparative ethnic courses

Student-Designed Major

The student may design an individual program of study, in consultation with the program staff in Ethnic Studies. Special problems of an interdisciplinary nature can be studied within the student-designed major.

Minor—Ethnic Studies 30 credits

- Introductory courses (6 credits)
- Remaining credits selected by student in Black, Chicano, Native American Indian, Asian American or comparative ethnic courses

BACHELOR OF ARTS IN EDUCATION

Major-Minor Concentration—Ethnic Studies/Social Studies

This program is designed for students who expect to teach in junior and senior high schools which have a significant number of students from ethnic minorities. It will also provide future teachers with a knowledge of the diverse cultural heritage of this country.

Required areas:

Ethnic Studies 55 credit hours

- Introductory courses (9 credits)
- Comparative cultural studies (10 credits)
- Ethnic studies electives under advisement to total 55 credit hours

Social Sciences 48 credit hours

- Political science or geography (10 credits)
- History (23 credits)
(History 391 required; history electives to total 20 credit hours)
- Social science (15 credits)
(from two social science areas not otherwise developed in the program)
- Courses in this area to be selected under advisement of ethnic studies and the director of social studies education

General Studies 25 credit hours

- Math (3 credits)
- Natural science (16 credits)
- Communication (7 credits)

Professional Education 39 credit hours

- See "Professional Education Sequence" section in the Education Department listing of this catalog

COURSE OFFERINGS

Except for the introductory courses, ethnic studies courses vary from year to year. The courses listed below have been offered previously. See class schedule for current listings.

Introductory Courses

201 AFRO-AMERICAN EXPERIENCE (3)

An introductory course to the Afro-American experience and the experience of other disinherited groups.

202 INTRODUCTION TO INDIAN STUDIES (3)

A course designed to provide basic information about the American Indian from earliest times to the present. Included will be such topics as the origin of American Indians, stereotypes and misconceptions about the American Indian, legislation, education, health and present-day problems.

203 CHICANO HISTORY, SOCIETY AND CULTURE (3)

The history, society and culture of Mexicans in the U.S. beginning with the early exploration and settlement of the Southwest by Spain (Mexico). An emphasis on the historic conflict that developed after 1836 between the Mexican people of the Borderlands (S.W.), and Anglo-Americans of the Southwestern United States on the level of economic and political institutions. The pattern of later immigration and settlement. The Chicano and contemporary issues in the field of politics, economics and education. Nature and scope of the Chicano movement.

205 INTRODUCTION TO ASIAN AMERICAN STUDIES (3)

A general survey of the history of Asians in the United States; the socio-political problems encountered by Chinese, Japanese, Filipino and Korean communities in America, past and present.

210 CHICANO LITERATURE IN SOCIO-CULTURAL PERSPECTIVE (5)

A study of the artistic and socio-cultural aspects of Chicano literature.

300 COMPARATIVE MINORITY STUDIES (3)

The foundations of history, culture and the development of the culturally different groups in the United States. Emphasis upon comparative minority relations and the concepts and terminology necessary to ethnic studies.



Ethnic Studies

- 374 THE CHICANO COMMUNITY
- 412 ETHNICITY, RACE AND CLASS IN THE UNITED STATES AND MEXICO
- 418 THE MEXICAN REVOLUTION OF 1910

Asian and Asian American Studies

(Courses offer from three to five credits.)

- 352 THIRD WORLD LITERATURE AND THIRD WORLD THOUGHT
- 406 THE ASIANS IN NORTH AMERICA

Comparative Culture Studies

(Courses offer from three to five credits.)

- 338 WOMEN IN CROSS-CULTURAL PERSPECTIVES
- 368 CULTURES AND POVERTY
- 382 CHILDREN IN CROSS-CULTURAL PERSPECTIVE
- 404 THIRD WORLD AND WORLD POLITICS
- 410 ETHNIC POLITICS IN AMERICA
- 411 ETHNICITY AND CHILDREN'S LITERATURE
- 425 ETHNICITY AND CULTURE
- 434 STUDIES IN MULTI-ETHNIC LITERATURE

Native American Studies

(Courses offer from three to five credits.)

- 312 AMERICAN INDIAN HISTORY
- 326 AMERICAN INDIAN LEGAL ISSUES
- 342 INDIAN HISTORY OF THE PACIFIC NORTHWEST
- 346 NATIVE AMERICAN WORLD VIEW
- 359 CONTEMPORARY AMERICAN INDIANS
- 371 COMPARATIVE AMERICAN INDIAN CULTURES
- 424 WORKSHOP IN INDIANS OF THE PACIFIC NORTHWEST

Black Studies

(Courses offer from three to five credits.)

- 303 AFRICA IN LITERARY PERSPECTIVES
- 311 THE SOCIOLOGICAL BLACK NOVEL
- 372 HISTORY OF AFRO-AMERICAN CULTURE
- 376 HISTORY OF THE SOUTH THROUGH RECONSTRUCTION
- 384 AFRICAN RELIGIONS AND PHILOSOPHIES
- 419 BLACKS IN THE LABOR MOVEMENT
- 421 ANONYMOUS AMERICANS
- 426 BLACK ATHLETES: SOCIAL AND CULTURAL IMPLICATIONS
- 430 BLACK ARTS WORKSHOP

Chicano Studies

(Courses offer from three to five credits.)

- 210 INTRODUCTION TO CHICANO LITERATURE
- 362 AZTEC SOCIETY AND CULTURE

Minority Education

(Courses offer from three to five credits.)

- 319 SPECIAL PROBLEMS IN AMERICAN INDIAN EDUCATION
- 401 EDUCATION AND AMERICAN MINORITIES
- 413 BILINGUAL AND BICULTURAL EDUCATION
- 420 BILINGUAL-BICULTURAL EDUCATION OF THE CHICANO CHILD

Independent Study Projects

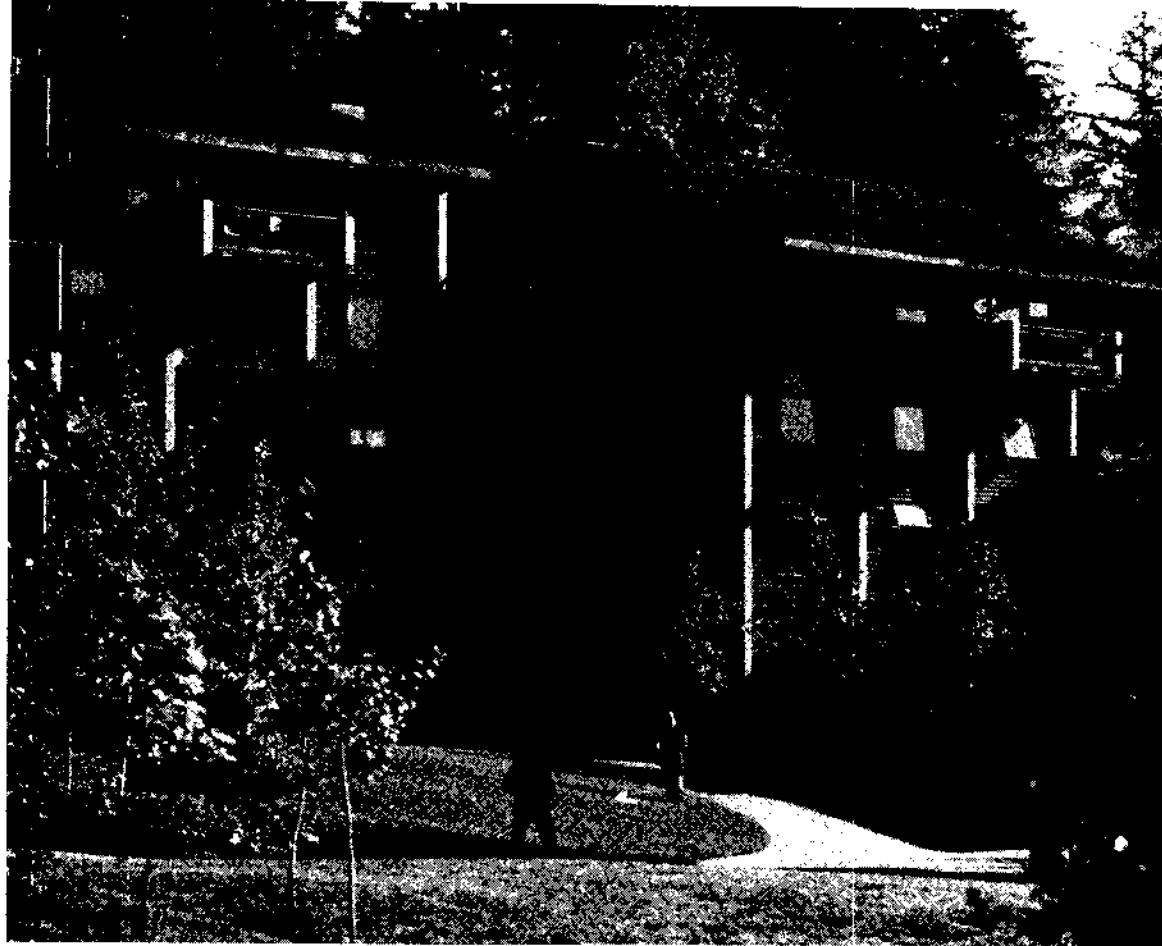
(To be arranged; credits vary.)

- 391 TOPICS IN BLACK STUDIES
- 392 TOPICS IN NATIVE AMERICAN INDIAN STUDIES
- 393 TOPICS IN CHICANO STUDIES
- 394 TOPICS IN ASIAN AMERICAN STUDIES
- 395 TOPICS IN COMPARATIVE CULTURE STUDIES
- 400 SPECIAL PROJECTS

Seminars

(Credits vary.)

- 430 SEMINAR IN BLACK STUDIES
- 431 SEMINAR IN CHICANO STUDIES
- 432 SEMINAR IN NATIVE AMERICAN INDIAN STUDIES
- 433 SEMINAR IN ASIAN AMERICAN STUDIES
- 434 SEMINAR IN COMPARATIVE CULTURE STUDIES
- 435 SEMINAR IN MINORITY EDUCATION



FAIRHAVEN COLLEGE

FAIRHAVEN FACULTY

KATHRYN L. ANDERSON. BA, MA, University of Iowa; PhD in progress, University of Washington. (Communication Theory, Women's Studies, Social Theory)

JOSEPH D. BETTIS, Dean of the College. BA, Southern Methodist; BD, Drew; MA, PhD, Princeton. (Philosophy, Theology, Phenomenology of Religion, Social Ethics)

MICHAEL J. BURNETT. BA, University of Illinois; MA, PhD, Claremont Graduate School. (Cultural History through Literature, especially Mexican and American Studies)

WILLIAM GARY CLEVIDENCE. BA, Antioch College; MA, University of Michigan. (Sociology, Anthropology, especially culture change, Social Theory)

CONSTANCE P. FAULKNER. BS, PhD, The University of Utah. (Economic Theories, Critical Social Theory, Middle East Studies)

KENNETH D. FREEMAN. AA, Mars Hill Jr. College; BA, Wake Forest University; MA, Emory University; PhD, Columbia University. (Philosophy, Male Studies)

HARVEY M. GELDER. BA, Colorado State College; MA, University of Missouri. (Mathematics, Logic, Astronomy)

PAUL C. GLENN. BA, University of Washington; MA, Stanford. (Art History, Crafts, Oriental Art and Religion, Socialist Aesthetics)

WILLIAM H. HEID. BA, Denison University; MS, PhD, University of Washington. (Psychological and Social Theory, Human Development)

ANNIS J. HOVDE. BA, MA, University of Washington. (American and English Literature, Humanities, Poetry and Creative Writing)

RAND F. JACK. AB, Princeton University; LLB, Yale University Law School. (Constitutional Law, Environmental Problems)

ROBERT H. KELLER. AB, University of Puget Sound; BD, MA, PhD, University of Chicago. (American History, Indian Law, Death and Dying, Historical Methodology)

C. DOUGLAS LUMMIS. BA, MA, PhD, University of California, Berkeley. (Political Philosophy, Japanese Politics)

BEVERLY M. MALMSTAD. AB, Augustana College; AM, University of Denver; PhD, Ohio University. (Performing Arts, especially opera and women's studies)

BARRY MAR. BA, MA, PhD, University of Washington. (Chemistry, Far Eastern History, Guidance and Counseling, Urban Education)

- DAVID T. MASON. AB, Reed College; MA, PhD, University of California, Davis. (Limnology/Oceanography, General and Human Ecology, Theatre and Music)
- JOHN C. McCLENDON. BA, MA, San Francisco State College; PhD candidate, University of California, Davis. (Third World Politics, East Asian Studies, especially Chinese society)
- DONALD B. McLEOD. BA, Whitman College; MA, University of Montana. (Humanities, Literature, Writing)
- JEROME RICHARD. BA, University of Pennsylvania; MA, New School for Social Research; MA, San Francisco State College. (American Literature)

COURSES AT FAIRHAVEN COLLEGE

Each quarter Fairhaven offers a new series of experimental, alternative and interdisciplinary courses. Since specific courses are not necessarily repeated on a regular basis, the following are examples of recent Fairhaven courses.

Fairhaven classes are open to all students of Western Washington State College. Students enrolled in other colleges and divisions of Western may apply credits earned at Fairhaven to their elective programs. In order to register, these students should: obtain *conference course permit card* from the Fairhaven Registrar, contact the Fairhaven instructor for signature on the card, validate the card with the Fairhaven Registrar, present the signed and validated card to the WWSC Registration Center at the time of registration.

TRAVEL-STUDY MEXICO (16)

The students spent one month at one of several intensive language institutes in Cuernavaca or Tepoztlan. Instruction included six hours a day in Spanish, with options afterward to study various subjects: weaving, pottery, archaeology and anthropology of area, Mexican history and politics, all in institute-led seminars. Students lived with Mexican families and the group as a whole met during the first month for bi-weekly colloquia on a wide range of subjects. Field trips included the village of Tepoztlan (studied by Redfield and Lewis), Xochicalco (Toltec archaeological site), Taxco and two weekends in Mexico City, with a prime focus on the Museum of Anthropology, other museums and cultural centers.

SEMIOTICS: THE THEORY OF SIGNS (4)

In the broadest sense, a sign is anything which is used to present, represent or bring to "mind" something else. To the biochemical apparatus of the cell, the DNA is a system of signs. A melody or theme within a piece of music is a sign. A fever is a sign. All thought, not just the activity that we attribute to certain brains, is "semiosis," that is, the creation and interpretation of signs. It is this nature which biochemical processes share in common with such things as cultural processes. The class probed into the general nature of what comprises a sign, some general characteristics of sign processes, and how signs differ (if in fact they do) from the sorts of things physicists study.

KARL MARX ON HISTORY, SOCIETY AND THE NATURE OF HUMAN EXISTENCE (5)

The class sampled the writings of Marx on historical materialism (as a way of understanding the "motion" of history, social relations (class struggle) and alienation in an attempt to understand the world as he did. In Marx's thinking

the three concepts are closely related—i.e., historical materialism is a methodology for explaining the evolution of the social order (and ordering) which in turn explains the nature of alienation experienced by individuals within that society. The class read only Marx—no secondary sources—in the class itself but in applying Marx's own methodology to his works, students were expected to select one among the readings on which to make a presentation to the class. This presentation required reading from other sources in order to understand the nature of the questions dealt with in the primary readings. Much of Marx's early writing represents critiques of other philosophies and dominant social ideas of his time. Thus, in order to understand Marx, one also had to understand that against which he was arguing.

DREAMING AND IMAGINATION (3)

A study of the spontaneously creative aspect of the mind, where ideas and images connect themselves according to their own rules and patterns beyond conscious constraint: a journey into "dream time." Two major lines of inquiry were followed: the first, and more important method, was through direct experience, both through experimentation with different forms of collective consciousness and with dream-writing exercises. One of the central problems posed by the group experiments was to discover to what extent our minds are actually individual and to what extent they are collective communication processes. The second method was an analysis and discussion of those experiences in the light of some of the major theories of dreaming and imagination.

WHAT'S UP THERE IN THE SKY? (4)

A description of phenomena astronomical. The class considered such "things" as our solar systems, various types and classes of stars, organizations of stars into clusters and galaxies, unusual objects—pulsars, quasi-stellar objects, black holes; unifying topics such as the electro-magnetic spectrum, matter, gravity, geometry were given an elementary presentation. An introduction to cosmology.

APPRENTICE WORK (3-5)

This was an experiment in training for the arts which is not new in the history of art, but quite different from most art courses of today. The instructor trained apprentices to assist in making three art objects for the college—a ceramic mural of about 10x12 feet, a large stained glass window, and a large painted mural. Students were introduced to several basic skills—welding, stained glass techniques, layout methods for large murals, ceramic hand-building and glazing. Additional credit was earned by some students doing her/his own creative work, going beyond technique into consideration of style, content, design, etc.

FREUD (4)

An introduction to the life and basic works of Sigmund Freud. Topics of sexuality, creativity and socialization were emphasized. Short lectures were presented for class meetings based on specific reading assignments as a basis for discussion.

NORTHWEST POETS (4)

The purpose of this course was to acquaint students with the publishing poets of our own region, including the local scene. The course surveyed the field rather than focusing on two or three writers; attention was given to lesser known figures such as Mitsui or Carlin Aden as well as the nationally recognized such as Roethke, Stafford or Wagner. Several paperback collections were required but students were asked to do considerable reading on their own. Each student was also responsible for an individual project—a written paper, an oral report to the class, a poetry reading for a group or the community, or any other respectable and acceptable project agreed upon by student and instructor.

THE CONSTITUTION AND AMERICAN SOCIETY II (6)

The course dealt with the notion of constitutionalism and with what it means to live in a society structured in part on the basis of a nearly 200-year-old document. One underlying theme was the way in which our constitutionalism has turned social and political questions into legal questions ultimately resolvable by the most powerful court in the history of earth. Prime focus during the quarter was upon the use of the constitution as a means of trying to limit governmental intrusion into the lives of individuals. The Bill of Rights was the center of concern and the class concentrated on questions of due process of law, equal protection and discrimination, privacy and freedom of expression.

HISTORIAN AS DETECTIVE (5)

This was a course in learning well the basic skills of research (emphasis was on historical research, but in the past students have found the course useful in many other areas). These skills included compiling bibliographies, using the library, use of reference works, interviewing, note-taking, using primary documents, writing, evaluation of evidence, consideration of historical fallacies. In addition, some attention was paid to the definitions of history and to various philosophies of history and theoretical problems. But the emphasis was on skills and the practice of those skills in testing evidence.

MICROBIOGEOCHEMISTRY (3)

An advanced seminar course for majors in biology, geology, chemistry, geography, etc., which focused on small-scale interactions between living organisms and their geochemical environment. Students prepared several case studies for presentation to the class. Relations to human affairs, pollution, mineral resources, etc., were also emphasized.

THE THIRD WORLD IN REVOLUTION (4)

The countries of the third world have many differences but they also have many things in common. Among these is the fight for control of their tremendous natural and human resources by the two big power blocs. The peoples of the third

world are fighting to remain independent, a struggle that may be seen by future historians as the most important struggle of the twentieth century. Korea, Vietnam, Angola, Chile, China, Zimbabwe (Rhodesia), Southern Africa and Cuba were the representative countries the class studied specifically.

CONTEMPORARY WESTERN LITERATURE (4)

Beginning together with a selected and annotated list of important writers in the West since World War I, the students worked individually or in groups or both, each taking chief responsibility for their own progress and direction and evaluation as the class moved through the quarter. No group activity came about without a mutual agreement of interest and usefulness; and every attempt was made to keep the groups as flexible as possible, both in terms of duration and subject matter. There were no assignments, no assigned texts, no required discussion; instead the instructor tried to come on as catalyst and resource, meeting with both individuals and groups when asked to do so and occasionally lecturing or asking others to lecture. A journal was required. Writers considered in this way in the quick past have included Joyce, Proust, Samuel Beckett, Brecht, Doris Lessing and too many other heavyweights to name here. Recommended to those who wish to learn how to work with critical and imaginative material more or less on their own, as well as to those, in literature and out, willing to take on books and writers not normally encountered by way of impulse or curriculum.

PERSPECTIVES ON AGING (5)

This was a multidisciplinary course which examined various aspects of the process of human aging. It was team taught by the following Fairhaven and Western faculty: Ti-Grace Atkinson, Connie Faulkner, Bill Heid, Dana Jack, Rand Jack, Bob Keller, John McClendon, Don McLeod, Doug Rich, Herb Taylor and Don Williams. Perspectives included were historical, sociological, psychological, physiological, male-female, economical, legal, educational, anthropological, literary and death as the final perspective. Selected movies, fiction and guest speakers supplemented the lectures, discussions and seminars.





FOREIGN LANGUAGES & LITERATURES

College of Arts and Sciences

YOUR CAREER

In these days of closer relationships among the countries of the world, foreign language training is invaluable. The ability to speak and understand foreign languages makes possible direct contact with the people, culture and literature of other lands, contributing to international understanding as well as personal development. Given the increased mobility of today's youth and the low transportation fees, it is not at all unlikely that sooner or later you will find yourself in some foreign land.

There are various vocational opportunities for people trained in foreign languages, often in combination with other fields, since the schedules for a foreign language major provide for 35 to 45 per cent elective work. Traditionally, Western's foreign language department has placed a great deal of emphasis on the preparation of foreign language teachers. In addition to our continuing

concern in the area of teacher preparation, we also encourage students to plan for careers in other areas in which the command of a foreign language is not only an asset but sometimes essential: library work, journalism, communications, business, secretarial work in connection with foreign commerce, music, motion pictures, the theater, and various phases of government work, including the diplomatic service. There is also an increasing demand for translators and interpreters. Language students are encouraged to combine their interest in foreign languages with other academic areas by electing a program of supporting courses in another field or a second major or minor, depending upon their own particular vocational objectives. Because of the policy of awarding credit for proficiency, it is often possible for advanced language students to complete more than one major without having to spend additional time in college.

DEGREE PROGRAMS

The Department of Foreign Languages and Literatures offers a well-balanced curriculum of language, literature and civilization courses on both the undergraduate and graduate level. A student in the department may earn a Bachelor of Arts degree in French, German, Greek, Latin, Russian and Spanish. Elementary and intermediate courses in Chinese and Japanese have recently been added to the department's offerings. Other languages are available on a programmed, self-instructional basis. In our courses all linguistic skills are stressed: understanding, speaking, reading and writing. Special reading courses are also offered for students wishing to increase their reading skill rapidly. In the civilization and literature courses, active use of the target language remains a primary objective. Western's modern electronic language laboratories and other audio-visual facilities are available to students for individual use as well as for class use. Special audio-visual conversation courses on an elementary level are also offered in French and in German for those whose main interest lies in speaking a foreign language.

SPECIAL PROJECTS UNDER WAY IN THE DEPARTMENT

To keep pace with student needs and interests, the Department of Foreign Languages and Literatures offers innovative courses which complement our traditional program. Several of these are interdisciplinary, team-taught courses such as the one entitled "In-depth Study of Literature" or the avant-garde class called "Structuralism," which teaches a new analytical approach applicable to many disciplines. There are also new courses in French-Canadian literature and Black French literature. An intensive first-year French course (French 105) is now being offered, and an intensive second-year French course will begin winter quarter 1978.

ADVANCED PLACEMENT

If you have begun your study of a foreign language in high school, you will probably be in a position to profit from our department's liberal advanced placement credit policy whereby you may be granted extra college credit upon completion of your first language courses at WWSC. Students are encouraged to increase their language proficiency through foreign travel, residency and study and are also eligible for credit, upon validation, through completion of courses or examination, for such experience. Every effort is made to assist students in arranging study-abroad programs as a part of their academic majors.

GRADUATE DEGREES

Students who wish to pursue their language studies on the graduate level may, upon satisfactory completion of 48 credit hours, earn a Master of Education degree in French, German or Spanish. Graduate courses are given each summer so that the M.Ed. candidate may earn his or her degree after having been enrolled on campus for at least three summers. An informal atmosphere and a small student/faculty ratio make Western Washington State College a particularly attractive place for scholarly endeavor and the maximum development of individual potential and interests. For further details concerning our graduate program, please refer to WWSC's *Graduate Bulletin*.

FOREIGN LANGUAGES AND LITERATURES FACULTY

- WALTER L. ROBINSON (1960) Chairman.
Professor of German. BA, MA, PhD, University of Texas.
- DARREL W. AMUNDSEN (1969) Associate Professor of Classics. BA, Western Washington State College; MA, University of Washington.
- HERBERT LE ROY SAIRD, JR. (1967) Associate Professor of Spanish. AA, Santa Ana Junior College; AB, Pomona College; AM, PhD, University of Chicago.
- ROBERT S. BALAS (1969) Associate Professor of French. BA, Upsala College; MA, University of Nebraska; PhD, University of Wisconsin.
- GUADALUPE GARCIA BARRAGAN (1965) Associate Professor of Spanish. BA, Colegio Aquiles Serdan; BEd, Instituto America; MA, Normal Superior Nueva Galicia; PhD, Université de Paris III.
- HENRICH BROCKHAUS (1965) Associate Professor of German. BA, MA, University of British Columbia; PhD, University of Washington.
- WILLIAM H. BRYANT (1970) Associate Professor of French. BA, University of Hawaii; PhD, University of Missouri.
- PETER A. EDDY (1970) Associate Professor of French. BA, Haverford College; MA, Middlebury College; PhD, Ohio State University.
- WILLIAM E. ELMENDORF (1958) Assistant Professor of Russian and Spanish. BS, University of Puget Sound; MA, University of Washington.
- EUNICE D. FABER (1959) Associate Professor of Spanish. AB, Howard University; MA, PhD, Catholic University.
- ARTHUR S. KIMMEL (1969) Associate Professor of French. AB, MA, University of Miami; PhD, University of California, Berkeley.
- VLADIMIR MILICIC (1962) Assistant Professor of Russian and Linguistics. Certificate of Baccalaureate, Gymnasium for Boys, Belgrade; MA, University of Chicago.
- KURT W. MOERSCHNER (1964) Associate Professor of German. BComm, BA, Sir George Williams University, Canada; MA (Psychology), MA (German), PhD, University of Colorado.
- CHARLES PARAM (1969) Professor of Spanish. BA, Oklahoma State University; MA, PhD, University of Arizona.
- **HELEN GOLDSMITH POGGENBURG (1968) Associate Professor of French. BA, MA, University of Minnesota; PhD, University of California, Berkeley.
- DANIEL RANGEL-GUERRERO (1969) Associate Professor of Spanish. AA, Sierra College; BA, Stanford University; MA, PhD, University of Oregon.

**On Leave 1977-78

NICOLE B. RAPOZA (1968) Associate Professor of French. AA, Long Beach City College; BA, Long Beach State College; MA, PhD, University of California, Berkeley.

*RUDOLF WEISS (1970) Associate Professor of German. BA, BA in Ed, Western Washington State College; MA, PhD, University of Colorado.

Students majoring in one foreign language may elect a minor in a second language. At least nine upper-division credits in any concentration must be taken in residence.

BACHELOR OF ARTS IN EDUCATION

Teaching Competence

Recommendation for teaching competence normally requires completion of the major with a grade of 2.5 or better. Students who have not completed an entire concentration but who have achieved a level of proficiency beyond the minimal requirements for a minor may be granted a qualified statement of competency to teach a foreign language on a beginning level pending additional work in the language during the fifth year. Statements of teaching competence are not normally issued, however, to persons who have completed a minor.

Major—French

Elementary/Secondary: 52-55 credits in courses above 200.

- 10 credits in courses numbered 200 or above
- 20-25 credits in courses numbered 300 or above
- Foreign Language Education 420
- Foreign Language Linguistics 410 or French 411 a, b or c
- Remainder of courses to be taken under advisement of French section

Major—German

Elementary/Secondary: 50 credits in courses above 200.

- Courses numbered 201, 202, 203, 301, 302, 305, 314, 340, 401, 402
- German 331 or 332
- One of the following: German 341, 342, 343
- German 442 or 450
- Foreign Language Education 410, 420

Major—Russian

Elementary/Secondary: 45-50 credits in courses above 200.

- Courses numbered 201, 202, 203, 301, 302, 330, 340, 341, 342
- 12 additional 300 and 400 level conference courses must be arranged through the department

Major—Spanish

Secondary: 45-50 credits in courses above 200.

- Courses numbered 201, 202, 203, 340
- Four courses from Spanish 301, 302, 314, 401, 402
- Foreign Language Education 420
- Foreign Language Linguistics 410
- Three additional courses numbered in the 300s and two courses in the 400s selected under advisement

Elementary: 45 credits.

- Courses numbered 201, 202, 203, 301, 302, 401, 402
- Foreign Language Education 420
- Foreign Language Linguistics 410
- Electives under departmental advisement

Major—Latin Secondary

- 45 credits selected under advisement

Minor—A Modern Language

- 19-25 credits in courses numbered 201 and above in one modern foreign language, including six credits in courses numbered 300 or above; elementary education minors expecting competency include 301, 302 and 314

Minor—Greek or Latin

- 12 credits beyond the first year in college Latin or Greek

Minor—Classical Studies

- Classics 350
- 15 credits from Classics 411, 421, 422, 431, 441
- 6 credits from History 411, 412, 413, 414; Phil 304

Minor—Linguistics

- Linguistics 201, 202, 301, 302, 303
- 6 credits selected under departmental advisement in a foreign language

*On Sabbatical Leave Spring 1978

Foreign Languages

BACHELOR OF ARTS

Major—Greek or Latin

- 45 credits in courses selected under advisement

Major—French 70-75 credits

55 credits in French plus 15-20 credits in supporting courses by advisement.

- 10-15 credits in courses numbered 200 or above
- 20-25 credits in courses numbered 300 or above
- 20 credits in courses numbered 400 or above
- Supporting courses: 15-20 credits of electives under departmental advisement, to include two literature-in-translation courses (see listings under each of the languages offered)

Major—German

66 credits including 21 credits in supporting courses.

- Courses numbered 201, 202, 203, 301, 302, 305, 314, 340, 401, 402
- German 331 or 332
- Two of the following: German 341, 342, 343
- German 442 or 450
- Supporting courses: German 367 and additional 367 or Classical Studies 350, plus 15 credits in a second foreign language, or 15 credits selected under advisement from courses in other languages, history, geography, philosophy, English, linguistics, political science, or speech or in any other areas under departmental advisement

Major—Russian

45 credits in Russian plus 21 credits in supporting courses by advisement.

- Courses 201, 202, 203, 301, 302, 330, 340, 341, 342
- Additional 300 and 400 level conference courses arranged through department
- Supporting courses: a program of 21 credits for above major in other languages, history, geography, philosophy, English, linguistics, or speech, and in other areas under departmental advisement

Major—Spanish 66 credits

- 45 credits in courses numbered 201 and above, plus supporting courses
- Spanish 340
- Three courses from Spanish 301, 302, 314, 401, 402; to include one 400-level course

- Three courses from Spanish 341, 342, 343, 344, 345, 346, 348, 353
- Two courses from Spanish 450
- Electives under departmental advisement
- Supporting courses: a program of 21 credits for above major in other languages, history, geography, philosophy, English, linguistics, or speech, and in other areas under departmental advisement

Minor—A Modern Foreign Language

- 19-25 credits in courses numbered 201 and above in one of the modern languages, including six credits in courses numbered 300 and above

Minor—Greek or Latin

- 12 credits beyond the first year in Latin or Greek

Minor—Classical Studies

- Classical Studies 350
- 15 credits from Classical Studies 411, 421, 422, 431, 441
- 6 credits from History 411, 412, 413, 414; Phil 304

Minor—Linguistics

- Linguistics 201, 202, 301, 302, 303
- 6 credits selected under departmental advisement in a foreign language

DEPARTMENTAL HONORS

In addition to the general requirements for all honors students, a foreign language major who wishes to graduate "with honors" must complete 20 credits in upper-division honors work in one foreign language for the Arts and Sciences major or 17 credits in upper-division honors work in one foreign language for the teacher education major.

GRADUATE STUDY

For a concentration in French, German, or Spanish leading to the Master of Education degree, see *Graduate Bulletin*.

COURSES IN FOREIGN LANGUAGES

Entering freshman students enrolling for the first time in any language at this college may take a placement test if they have previous knowledge of the language, however acquired.

KEY TO REVISED NUMBERING SYSTEM

- 00 Conference Courses
 01-09 Language (Grammar, Conversation, Composition, Exposition)
 10-19 Linguistics (Phonetics, Phonology, Morphology, Syntax, History of the Language)
 20-29 Methodology
 30-33 Civilization
 37 Foreign Study
 40-59 Literature; Seminars in Literature; Studies in Literature
 60-75 Literature in Translation; Miscellaneous
 80-89 Language for a Reading Knowledge
 90-99 Experimental Courses; Honors Tutorials

GENERAL COURSES

- 237 FOREIGN STUDY (2-5)
 (See 437.)
- 309 DIRECTED INSTRUCTION IN MODERN FOREIGN LANGUAGES (3)
 Prerequisite: intermediate level experience in a formal college course in one or more modern foreign languages required. A maximum of nine credits may be earned in this sequence. Fundamentals of the language; pronunciation, aural comprehension, reading and grammar. Only those languages for which established curricula materials are available will be offered.
- 337 FOREIGN STUDY (2-5)
 (See 437.)
- 367 FOREIGN LITERATURE IN TRANSLATION (3)
 In-depth study of foreign literature in translation. Topics vary (i.e., poetry, short story, etc.). See also foreign literature in translation courses under French, German, Russian, and Spanish, and under East Asian Studies.
- 379 STRUCTURALISM (3)
 Study in various aspects of structuralism as it relates to analysis of literature (and language). Reading and discussing of actual examples of applied method. Actual application to result in writing of one or more papers.
- 410 INTRODUCTION TO APPLIED LINGUISTICS FOR FOREIGN LANGUAGE MAJORS (4)
 Prerequisite: six credits in one modern foreign language beyond the second year. Comparison of structures (phonological, morphological and syntactic) of English and other languages.
- 420 METHODS AND MATERIALS FOR TEACHING MODERN FOREIGN LANGUAGES (4)
 Prerequisite: six credits in one modern foreign language beyond the second year. Must be taken prior to student teaching in a foreign language. An introduction to topics of concern to the secondary or elementary teacher of foreign language and the literature of foreign language education. Opportunity for practicing various teaching activities: tape preparation, lesson organization, text adaptation, and presentations in a micro-teaching framework. Observation of language instruction in local schools.
- 437, 337, 237 FOREIGN STUDY (2-5 ea)
 These courses are offered only through the WWSC/NICSA Study Abroad program. Contact Foreign Study office, Miller Hall 353, for information.

For courses taught in translation, see Classical Studies (list below); Foreign Lang 367; French 367; German 367, 375; Russian 367; Spanish 367; and East Asian 367.

CHINESE

- 101, 102, 103 ELEMENTARY CHINESE (5 ea)
 Each course prerequisite to the next. Fundamentals of the language; pronunciation, grammar, aural comprehension, reading and speaking. Use is made of a combination of formal instruction, small tutorials led by native speakers of Chinese, and self-instruction using cassette recorders and other materials.
- 201, 202, 203 INTERMEDIATE CHINESE (5 ea)
 Prerequisite: Chinese 103 or equivalent. Review of the fundamentals of the language; emphasis on acquisition of oral and written vocabulary; intensive reading and discussion in Chinese of graded materials in modern Chinese.
- 300 DIRECTED INDIVIDUAL STUDY (1-5)
 Prerequisite: 15 credits (or equivalent) in Chinese on the 200 level. Individual study of a topic not normally covered in formal courses.

CLASSICAL STUDIES

(The following courses require no knowledge of Latin or Greek as prerequisites.)

- 101 LATIN AND GREEK IN CURRENT USE (2)
 A workbook class applying the principles of word derivation from Latin and Greek to the practical enlargement of the student's English vocabulary.
- 350 GREEK AND ROMAN MYTHOLOGY (3)
 Important classical myths seen in the context of classical literature; influence on Western literature.
- 411 GREEK AND ROMAN EPIC (3)
 Prerequisite: Gen St 121 or Eng 131 or Classical Studies 350. Origins, development, nature of classical epic; readings from Homer, Apollonius of Rhodes, Virgil, Lucan.
- 421 GREEK AND ROMAN TRAGEDY (3)
 Prerequisite: Gen St 121 or Eng 131 or Classical Studies 350. Origins and development of earliest European drama, thematic and structural principles of major dramatists; influence on later Western literature.
- 422 GREEK AND ROMAN COMEDY (3)
 Prerequisite: Gen St 121 or Eng 131 or Classical Studies 350. Nature of classical comedy; readings from Aristophanes, Menander, Plautus, Terence.
- 431 THE CLASSICAL NOVEL (3)
 Prerequisite: Gen St 121 or Eng 131 or Classical Studies 350. Readings from the Greek romances, Petronius' "Satyricon," Apuleius' "The Golden Ass;" earliest extant novels in Western literature.
- 441 ROMAN SATIRE (3)
 Prerequisite: Gen St 121 or Eng 131 or Classical Studies 350. Roman satire as a distinct genre in Latin literature; influence on later satiric tradition; readings from Juvenal, Horace, Seneca, Persius, Lucian.

DUTCH

- 101, 102, 103 (197a,b,c) ELEMENTARY DUTCH FOR COMPREHENSION AND CONVERSATION (3 ea)
 Each course prerequisite to the next. A beginning course in Dutch which emphasizes development of listening comprehension and speaking competence. Offered only through Continuing Education.

**FOREIGN LITERATURES
IN TRANSLATION**

See *Foreign Lang 367; French 367; German 367, 375; Russian 367; Spanish 367; East Asian 367.*

These courses are based on readings in foreign literature in English and no knowledge of foreign language is required for participation.

FRENCH

101, 102, 103 ELEMENTARY FRENCH (5 ea)
To be taken in sequence. Fundamentals of speaking, reading, writing and understanding French.

105 INTENSIVE FIRST-YEAR FRENCH (15)
This intensive course is intended for those who have had no experience or very little contact with French. It covers one full academic year of French, accentuating speaking and comprehending, and is based upon a special series of French films.

201 FRENCH GRAMMAR REVIEW OF THE FIRST YEAR (5)
Recommended for students with two years of high school French or more if they do not qualify for 202. A rapid review of basic skills needed for Intermediate French.

202, 203 INTERMEDIATE FRENCH (5 ea)
Prerequisite: French 103 or two years of high school French or equivalent score on placement examination; to be taken in sequence. Continuation of skill development begun in Elementary French, with additional work in vocabulary acquisition and grammar. Intensive reading and discussion in French of short passages from modern French texts.

205 INTERMEDIATE CONVERSATION (2)
Prerequisite: French 103. Conversational practice involving situations of daily life.

237 FOREIGN STUDY (2-5)
(See French 437.)

280 FRENCH FOR A READING KNOWLEDGE (4)
For students needing a reading knowledge of the language. Fulfills graduate reading requirement when completed successfully; graduate students are advised to take the course P/NP.

300 DIRECTED INDIVIDUAL STUDY (1-5)
Prerequisite: 15 credits (or equivalent) of French on the 200 level. Individual study of a topic not normally covered in formal courses.

301 GRAMMAR REVIEW AND WRITTEN EXPOSITION (5)
Prerequisite: French 203 or equivalent. Course designed to give the advanced student practice in French written expression and to review French grammar. Regular written assignments, study of grammar, and vocabulary building.

305 ORAL EXPOSITION (5)
Prerequisite: French 203 or equivalent; may be taken currently with French 311. The advanced student practices expressing himself orally in French. Students give expository talks and discuss articles taken from current French periodicals. Vocabulary building.

311 INTRODUCTION TO LINGUISTIC STUDIES (5)
Prerequisite: French 203 or equivalent, Linguistics, phonetics, stylistics.

380 FRENCH CIVILIZATION (3)
Prerequisite: French 301. Topics in contemporary French life.

337 FOREIGN STUDY (2-5)
(See French 437.)

340 INTRODUCTION TO FRENCH LITERATURE STUDIES I (5)
Prerequisite: French 301. An introduction to literary analysis, *explication de texte* involving poetry, prose and drama from the works of major authors before 1800.

341 INTRODUCTION TO FRENCH LITERATURE STUDIES II (5)
Prerequisite: French 301 (340 recommended). An introduction to literary analysis, *explication de texte* involving poetry, prose and drama from works of major authors after 1800.

367 FRENCH LITERATURE IN TRANSLATION (3-5)
Selected major works in French literature read and discussed in English. May be applied to a B.A. major in French only as a supporting course. When topics vary, the course may be repeated.

396a,b,c HONORS TUTORIAL (2-5 ea)

400 DIRECTED INDIVIDUAL STUDY (1-5)
Prerequisite: 9 credits (or equivalent) in upper-division French. Individual study of a topic not normally covered in formal courses.

401 ADVANCED COMPOSITION AND GRAMMAR (5)
Prerequisite: French 301 or 305. Advanced written and oral expression, identification and correction of phonological and grammatical problems.

411a,b,c STUDIES IN FRENCH LANGUAGE AND LINGUISTICS (5 ea)
Prerequisite: 5 credit hours at 300 level. This course deals in depth with specific problems in language and linguistics, such as: comparison of structures (phonological, morphological, syntactic) of English and French; development of phonology, morphology and syntax from Latin to modern French; advanced problems in phonetics and stylistics. Topics—(a) History of the French Language; (b) Applied Linguistics; (c) Phonetics and Stylistics.

425 TEACHING-LEARNING PROCESSES IN ELEMENTARY FRENCH (2)
Prerequisites: permission of department and six credits upper-division French. Practicum in course preparation, classroom and language laboratory procedures, materials, evaluation and counseling. May be repeated. S/U grading only.

437, 337, 237 FOREIGN STUDY (2-5)
Prerequisite: for French 237, French 103 or equivalent; for French 337, French 202 or equivalent; for French 437, nine credits in upper-division French. These courses are offered only through the WWSC/NICSA Study Abroad program. Contact Foreign Study office, Miller Hall 368, for information.

450 SEMINAR IN FRENCH LITERATURE (3-5)
Prerequisites: 9 credits in upper-division French and permission of department. Major authors and movements. Since topics vary, the course may be repeated.

451a,b,c LITERARY GENRE STUDIES (5 ea)
Prerequisite: 5 credits in 340-341. Topics: (a) theory of prose and its development through the novel; (b) theory of drama and its development; (c) theory of poetry and its development.

452a,b,c LITERARY PERIOD STUDIES (5 ea)
Prerequisite: 5 credits in 340-341. Topics: (a) Medieval and Renaissance: French literature and civilization from 1100-1630; (b) 17th and 18th Centuries: French literature and civilization from 1630-1802; (c) 19th and 20th Centuries: French literature and civilization from 1802-present.

496a,b,c HONORS TUTORIAL (2-5 ea)

(Graduate courses are offered summers on alternating basis. Courses scheduled for summer, 1977, are: 502, 505, 513, 550a, 555a, 598.)

501. 502 FRENCH PHONOLOGY, MORPHOLOGY AND SYNTAX (4 ea)

An advanced course in written and oral expression, with emphasis on the identification and correction of phonological and grammatical problems.

504 HISTORY OF THE FRENCH LANGUAGE (4)

The development of phonology, morphology and syntax from Latin to Modern French.

505 APPLIED FRENCH LINGUISTICS (4)

Prerequisite: FL Ed 410, French 411 or equivalent. An advanced course in linguistics designed for the teacher of French.

510 STUDIES IN THE FRENCH NOVEL (4)

A detailed investigation of the development of the French novel.

511 STUDIES IN DRAMA (4)

Historical and critical study of the French theatre, with emphasis on the major genres.

512 STUDIES IN FRENCH POETRY (4)

513 CIVILIZATION AND CULTURE OF THE FRENCH-SPEAKING WORLD (4)

532 THE TEACHING OF FRENCH (4)

Prerequisites: FL Ed 420 and teaching experience, or permission of department. Emphasis on audio-visual methodology, language laboratory operation and management. Materials and methods of teaching French for those with teaching experience.

550 GRADUATE SEMINAR (4 ea)

Prerequisite: 8 credits in French 510-513. Students should have some background in literature studied on the graduate level before taking this course.
550a Studies in Modern French Literature
550b The French Short Story

555 WORKSHOP IN THE TEACHING OF FRENCH (4 ea)

Prerequisites: FL Ed 420 or 532, and teaching experience, or permission of department. A seminar designed to give teachers of French an introduction to specialized areas of methodology such as the teaching of literature in high school and the community college, psycholinguistics, testing, preparation of audio-visual materials, etc.
555a Literature
555b Methodology

598 DIRECTED INDIVIDUAL STUDY (1-4)

Prerequisites: French 505, 532, 555. Research on literary or methodological topics not included in formal courses. Students may take this course under advisement.

GERMAN

101, 102, 103 ELEMENTARY GERMAN (5 ea)

Each course prerequisite to the next. Fundamentals of the language; pronunciation, grammar, aural comprehension, reading and speaking.

104 REFRESHER COURSE IN ELEMENTARY GERMAN (5)

Recommended for students with two years of high school German, or more if they do not qualify for German 201. A rapid review of basic skills needed for Intermediate German.

180 GERMAN FOR A READING KNOWLEDGE I (3)

Not open to students with more than one year of college German. Introductory course for students needing a reading knowledge of the language. See also German 280.

201, 202, 203 INTERMEDIATE GERMAN (5, 5, 3)

Prerequisite: German 103 or two years high school German or equivalent; German 201 prerequisite to 202; German 202 prerequisite to 203. Review of the fundamentals, reading and conversation.

237 FOREIGN STUDY (2-5)

(See German 437.)

280 GERMAN FOR A READING KNOWLEDGE II (3)

Prerequisite: German 180 or one year of college German or equivalent. For fulfillment of master's degree reading requirement.

300 DIRECTED INDIVIDUAL STUDY (1-5)

Prerequisite: 13 credits (or equivalent) of German on the 200 level. Individual study of a topic not normally covered in formal courses.

301, 302 THIRD YEAR COMPOSITION (3 ea)

Prerequisite: German 203 or equivalent; German 301 prerequisite to 302. Written and oral composition and grammar, and vocabulary building.

305 GERMAN CONVERSATION (3)

Prerequisite: German 301. Conversation practice involving situations of daily life; topics of contemporary Germany. Vocabulary building.

314 PHONETICS (3)

Prerequisite: German 203. A course designed to improve the student's pronunciation and intonation, to familiarize him with phonetic transcription, and to develop an awareness of problems involved in teaching sounds of German.

331 CIVILIZATION OF GERMANY THROUGH THE NINETEENTH CENTURY (3)

Prerequisites: German 201, 202, 203 or equivalent. Significant elements of German civilization presented through German texts.

332 GERMAN CIVILIZATION TODAY (3)

Prerequisites: German 201, 202, 203 or equivalent. Significant elements of German civilization.

337 FOREIGN STUDY (2-5)

(See German 437.)

340 INTRODUCTION TO GERMAN LITERATURE (3)

Prerequisite: 10 credits of second-year German or equivalent. Selected works of major German authors, with emphasis on reading improvement and methods of textual interpretation.

341 NINETEENTH CENTURY GERMAN LITERATURE I (3)

Prerequisite: German 340. Emphasis on the Romantic Movement.

342 NINETEENTH CENTURY GERMAN LITERATURE II (3)

Prerequisite: German 340. Emphasis on realism.

343 EIGHTEENTH CENTURY GERMAN LITERATURE (3)

Prerequisite: German 340. Classical period of German literature as reflected in a major work of Lessing, Goethe and Schiller.

Foreign Languages

367 GERMAN LITERATURE IN TRANSLATION (3)

Selections from eminent German authors read and discussed in English. May be applied to a B.A. major in German only as a supporting course. When topics vary, the course may be repeated.

375 MAIN CURRENTS IN MODERN FOREIGN LITERATURE—GERMAN (5)

A survey of German literature and civilization—readings and discussions in English. Intellectual, philosophical and social ideas as reflected in the literature of Germany as part of our Western heritage.

380 GERMAN FOR READING KNOWLEDGE AND RESEARCH (3)

Basic German for readings in chosen field of specialization for graduate students and others requiring access to German materials for research.

385a,b,c GERMAN CULTURE AND CONVERSATION (1 ea)

Prerequisite: German 201; may be repeated for credit. German culture through film, talks and song. General discussions of Germany and its culture, especially in contrast to our own. S/U grading only.

396a,b,c HONORS TUTORIAL (2-5 ea)

400 DIRECTED INDIVIDUAL STUDY (1-5)

Prerequisite: 9 credits (or equivalent) in upper-division German. Individual study of a topic not normally covered in formal courses.

401, 402 ADVANCED COMPOSITION AND GRAMMAR (3 ea)

Prerequisite: German 302.

425 TEACHING-LEARNING PROCESS IN ELEMENTARY GERMAN (2)

Prerequisites: permission of department and six credits upper-division German. Practicum in course preparation, classroom and language laboratory procedures, materials, evaluation and counseling. May be repeated. S/U grading only.

437, 337, 237 FOREIGN STUDY (2-5 ea)

Prerequisites: for 237, German 103 or equivalent; for 337, German 202 or equivalent; for 437, nine credits in upper-division German. These courses are offered only through the WWSC/NICSA Study Abroad program. Contact Foreign Study office, Miller Hall 353, for information.

442 GERMAN LITERATURE IN THE TWENTIETH CENTURY (3)

Prerequisite: 9 credits in upper-division German. Selections reflecting development of recent German literature.

450 STUDIES IN GERMAN LITERATURE (3)

Prerequisite: 9 credits in upper-division German or equivalent, and permission of department. Major authors and movements. Since topics vary, the course may be repeated.

496a,b,c HONORS TUTORIAL (2-5 ea)

(Graduate courses are offered summers on alternating basis. Courses scheduled for summer, 1977, are 502, 510a, 532.)

501 CONVERSATION AND COMPOSITION (4)

Prerequisite: German 401 or equivalent. Syntax, written and oral composition, conversation, based on topics reflecting history of German civilization from pagan times through the Reformation.

502 CONVERSATION AND COMPOSITION (4)

Prerequisite: German 401 or equivalent. Syntax, written and oral composition, conversation, based on topics reflecting history of German civilization from Luther through Bismark.

503 CONVERSATION AND COMPOSITION (4)

Prerequisite: German 401 or equivalent. Written and oral composition, conversation, based on topics reflecting contemporary German civilization.

504 APPLIED GERMAN LINGUISTICS (4 ea)

504a German Phonetics and Phonemics
504b German Morphology and Syntax

510 SEMINAR IN LITERATURE (4 ea)

Three seminars required. Emphasis on teaching of literature in community colleges and high schools, research methods and evaluation. Topics announced in advance from the following:

510a The Modern Short Narrative
510b The Short Drama, *Hoerspiele* and *Einakter*
510c Poetry, Folksong, Ballad and Modern Lyric

532 THE TEACHING OF GERMAN (4)

Methods and materials for teaching German in the community college, secondary and elementary schools.

598 DIRECTED INDIVIDUAL STUDY (1-4)

Prerequisite: admission to graduate standing.

GREEK

101, 102, 103 ELEMENTARY GREEK (5 ea)

Each course prerequisite to the next. Fundamentals of grammar designed primarily to provide an elementary reading knowledge; selected readings from Plato's simpler dialogues.

111, 112, 113 NEW TESTAMENT GREEK (3 ea)

Greek 111 prerequisite to 112, 112 prerequisite to 113. Study of the basic grammar and vocabulary of the Koine dialect, to include New Testament and Patristic sources, with emphasis placed on the acquiring of a reading knowledge.

201, 202, 203 INTERMEDIATE GREEK (3 ea)

Prerequisite: Greek 103 or equivalent; to be taken in sequence. Review of fundamentals; readings from Plato's dialogues, the orators, the *Iliad* or *Odyssey*. Introduction to Greek civilization.

300 DIRECTED INDIVIDUAL STUDY (1-5)

Prerequisite: 9 credits (or equivalent) of Greek on the 200 level. Individual study of a topic not normally covered in formal courses.

340 GREEK LYRIC POETRY (3)

Prerequisite: Greek 203 or equivalent. Historical survey of origins and development of the Greek lyric with readings from major writers.

341 GREEK TRAGEDY (3)

Prerequisite: Greek 203 or equivalent. Selected plays by Aeschylus, Sophocles and Euripides; history of Greek theatre and stage production.

342 GREEK HISTORIANS (3)

Prerequisite: Greek 203 or equivalent. Selections from Herodotus and Thucydides; development of historical writing in Greece.

400 DIRECTED INDIVIDUAL STUDY (1-5)

Prerequisite: 9 credits (or equivalent) in upper-division Greek. Individual study of a topic not normally covered in formal courses.

JAPANESE

101, 102, 103 ELEMENTARY JAPANESE (5 ea)

Each course prerequisite to the next. Fundamentals of the language; pronunciation, grammar, aural comprehension, reading and speaking. Use is made of a combination of formal instruction, small tutorials led by native speakers of Japanese, and self-instruction using cassette recorders and other materials.

201, 202, 203 INTERMEDIATE JAPANESE (5 ea)

Prerequisite: Japanese 103 or equivalent. Review of the fundamentals of the language; emphasis on acquisition of oral and written vocabulary; intensive reading and discussion in Japanese of graded materials in modern Japanese.

300 DIRECTED INDIVIDUAL STUDY (1-5)

Prerequisite: 15 credits (or equivalent) in Japanese on the 200 level. Individual study of a topic not normally covered in formal courses.

KOREAN

101, 102, 103 ELEMENTARY KOREAN (5 ea)

Each course prerequisite to the next. Fundamentals of the language; pronunciation, grammar, aural comprehension, reading and speaking.

LATIN

101, 102, 103 ELEMENTARY LATIN (5 ea)

Each course prerequisite to the next. Fundamentals of grammar to provide a reading knowledge; selected readings from various Roman writers.

201, 202, 203 INTERMEDIATE LATIN (3 ea)

Prerequisite: Latin 103 or two years high school Latin; each course prerequisite to the next. Review of fundamentals; selected readings from various Roman writers; introduction to Latin civilization.

300 DIRECTED INDIVIDUAL STUDY (1-5)

Prerequisite: 9 credits (or equivalent) in Latin on the 200 level. Individual study of a topic not normally covered in formal courses.

304 POST-CLASSICAL LATIN (3)

Prerequisite: Latin 203 or equivalent. Selected prose and poetry from the post-classical period.

340 LATIN LYRIC POETRY (3)

Prerequisite: Latin 203 or equivalent. Historical survey of origins and development of the Latin lyric, with special attention to the poems of Horace, Catullus and Ovid.

341 ROMAN DRAMA (3)

Selected plays of Plautus, Terence and Seneca; history and techniques of the Roman theatre.

342 ROMAN PHILOSOPHY (3)

Prerequisite: Latin 203 or equivalent. Selected readings with emphasis on the Stoics and Epicureans.

343 SILVER LATIN LITERATURE (3)

Prerequisite: Latin 203 or equivalent. Studies in literary traditions of the Early Roman Empire, including selections from Seneca, Pliny and Martial.

344 ROMAN HISTORY AND ORATORY (3)

Prerequisite: Latin 203 or equivalent. Readings from Sallust, Livy, Tacitus and Cicero's orations.

396a,b,c HONORS TUTORIAL (2-5 ea)

400 DIRECTED INDIVIDUAL STUDY (1-5)

Prerequisite: 9 credits (or equivalent) of upper-division Latin. Individual study of a topic not normally covered in formal courses.

RUSSIAN

101, 102, 103 ELEMENTARY RUSSIAN (5 ea)

Each course prerequisite to the next. Fundamentals of the language; pronunciation, grammar, aural comprehension, reading and speaking.

201, 202 INTERMEDIATE RUSSIAN (5 ea)

Prerequisite: Russian 103 or two years high school Russian or equivalent; Russian 201 prerequisite to 202.

203 INTERMEDIATE RUSSIAN (5)

Prerequisite: Russian 202. Review of the fundamentals, reading, aural comprehension and speaking.

280 RUSSIAN FOR READING KNOWLEDGE AND RESEARCH (3)

A one-quarter course intended primarily to give the student of science and/or mathematics a reading knowledge of scientific Russian. Can be adapted to serve liberal arts students as well. Not applicable to a major or a minor except as a supporting course.

300 DIRECTED INDIVIDUAL STUDY (1-5)

Prerequisite: 15 credits (or equivalent) of Russian on the 200 level. Individual study of a topic not normally covered in formal courses.

301, 302 THIRD YEAR COMPOSITION (3 ea)

Prerequisite: Russian 203 or equivalent; Russian 301 prerequisite to 302. Written and oral composition and grammar, and vocabulary building.

330 CIVILIZATION OF RUSSIA (3)

Prerequisites: Russian 201, 202, 203 or equivalent. Significant elements of Russian civilization presented through Russian texts.

340 INTRODUCTION TO RUSSIAN LITERATURE (3)

Prerequisite: 15 credits of second-year Russian or equivalent. Selected works of major Russian authors, with emphasis on reading improvement and textual interpretation.

341 NINETEENTH CENTURY LITERATURE I (3)

Prerequisite: Russian 340. Introduction to Pushkin, Lermontov, Gogol and Turgenev.

342 NINETEENTH CENTURY LITERATURE II (3)

Prerequisite: Russian 340. Introduction to Dostoevsky, Tolstoy, Chekhov.

367 INTRODUCTION TO RUSSIAN LITERATURE IN ENGLISH (3)

Survey of history of Russian literature. May be applied to a B.A. major in Russian only as a supporting course.

396a,b,c HONORS TUTORIAL (2-5 ea)

400 DIRECTED INDIVIDUAL STUDY (1-5)

Prerequisite: 9 credits (or equivalent) in upper-division Russian. Individual study of a topic not normally covered in formal courses.

496a,b,c HONORS TUTORIAL (2-5 ea)

SPANISH

101, 102, 103 ELEMENTARY SPANISH (5 ea)

To be taken in sequence. Fundamentals of speaking, reading, writing and understanding.

104 REFRESHER COURSE IN ELEMENTARY SPANISH (5)

Recommended for students with two years of high school Spanish, or more if they do not qualify for Spanish 201. A rapid review of basic skills needed for Intermediate Spanish.

201, 202, 203 INTERMEDIATE SPANISH (5 ea)

Prerequisite: Spanish 103 or equivalent; to be taken in sequence. Review of fundamentals; speaking, reading, writing and understanding.

Foreign Languages

- 237 FOREIGN STUDY (2-5)
(See Spanish 437.)
- 300 DIRECTED INDIVIDUAL STUDY (1-5)
Prerequisite: 15 credits (or equivalent) of Spanish on the 200 level. Individual study of a topic not normally covered in formal courses.
- 301, 302 COMPOSITION AND CONVERSATION (3 ea)
Prerequisite: Spanish 203 or equivalent; to be taken in sequence. Written and oral composition, grammar and vocabulary building.
- 305a,b,c THIRD YEAR CONVERSATION (2 ea)
Prerequisite: Spanish 203 or equivalent; may be taken concurrently with Spanish 301, 302, or 314. Conversational practice involving situations of daily life; vocabulary building. May be repeated for credit.
- 314 INTRODUCTION TO SPANISH PHONOLOGY (3)
Prerequisite: Spanish 301 or equivalent. Intensive study of the Spanish sound system.
- 331 MEXICAN CULTURE AND CIVILIZATION (3)
Prerequisites: Spanish 201, 202, 203 or equivalent. Panoramic view of Mexican civilization and culture from pre-Columbian times to the present.
- 337 FOREIGN STUDY (2-5)
(See Spanish 437.)
- 340 INTRODUCTION TO HISPANIC LITERATURE (3)
Prerequisite: Spanish 203 or equivalent. Work of major Hispanic authors representing each literary genre; emphasis on reading improvement and methods of analysis.
- 341 SPANISH LITERATURE TO 1538 (3)
Prerequisite: Spanish 340. Literary development from beginnings to death of Garcilaso.
- 342 SIGLO DE ORO (3)
Prerequisite: Spanish 341. Literary development in various genres during the Golden Age; special study of major works and writers.
- 343 MODERN SPANISH LITERATURE (3)
Prerequisite: Spanish 342. Selected authors and works from 1860 to present.
- 344 SPANISH-AMERICAN LITERATURE: COLONIAL PERIOD TO END OF NINETEENTH CENTURY (3)
Prerequisite: Spanish 340. Selected authors and works.
- 345 MODERN SPANISH-AMERICAN LITERATURE (3)
Prerequisite: Spanish 344. Modernism and other literary trends.
- 346 CONTEMPORARY SPANISH-AMERICAN LITERATURE (3)
Prerequisite: Spanish 345. Major authors and trends after modernism.
- 348 TWENTIETH CENTURY SPANISH-AMERICAN NOVEL (3)
Prerequisite: Spanish 346. Interpretation and discussion of selected readings.
- 350 STUDIES IN SPANISH AND SPANISH-AMERICAN LITERATURE (3)
Prerequisite: completion of Spanish 340 or equivalent. Different genres, schools and/or movements in Spanish and Spanish-American literature at the different periods of development in Peninsular and Spanish-American letters will be studied under this course. Specific topics to be listed in class schedule; may be repeated for credit.
- 353 CONTEMPORARY MEXICAN LITERATURE (3)
Reading and discussion of selected major documents from the twentieth century Mexican literary canon.
- 367 SPANISH AND SPANISH-AMERICAN LITERATURE IN TRANSLATION (3)
Major works, with reference to their cultural and historical setting, literary merit, and subsequent influence; read and discussed in English. May be applied to a B.A. major in Spanish only as a supporting course. When topics vary, the course may be repeated.
- 385a,b,c HISPANIC CULTURE AND CONVERSATION (1 ea)
Prerequisite: Spanish 201. Hispanic culture through film, talks and song. General discussions of the Hispanic World and its culture, especially in contrast to our own. May be repeated for credit.
- 396a,b,c HONORS TUTORIAL (2-5 ea)
- 400 DIRECTED INDIVIDUAL STUDY (1-5)
Prerequisite: 9 credits (or equivalent) of upper-division Spanish. Individual study of a topic not normally covered in formal courses.
- 401, 402 ADVANCED COMPOSITION AND GRAMMAR (3 ea)
Prerequisite: Spanish 302; Spanish 401 prerequisite to 402.
- 405a,b,c ADVANCED CONVERSATION (2 ea)
Prerequisite: Spanish 301, 302 or 305; may be taken concurrently with Spanish 401 or 402. Advanced conversational practice on topics reflecting current events in the Hispanic world; students give expository talks and discuss articles taken from periodicals; vocabulary building. May be repeated for credit.
- 421 THE BILINGUAL/BICULTURAL CLASSROOM (3)
Prerequisite: FL Ed 420 or equivalent or permission of department. Course designed to solve problems of teaching language and culture to dominant speakers of both English and Spanish.
- 425 TEACHING-LEARNING PROCESSES IN ELEMENTARY SPANISH (2)
Prerequisite: permission of department and six credits of upper-division Spanish. Practicum in course preparation, classroom and language laboratory procedures, materials, evaluation and counseling. May be repeated. S/U grading only.
- 437, 337, 237 FOREIGN STUDY (2-5 ea)
Prerequisites: for Spanish 237, Spanish 103 or equivalent; for Spanish 337, Spanish 202 or equivalent; for Spanish 437, nine credits in upper-division Spanish. These courses are offered only through the WWSC/NICSA Study Abroad program. Contact Foreign Study office, Miller Hall 353, for information.
- 450 STUDIES IN SPANISH LITERATURE (3)
Prerequisites: 9 credits in upper-division Spanish and permission of department. Major authors and movements. Since topics vary, the course may be repeated.

(Graduate courses are offered every three summers. Summer, 1977: 501, 510a, 532. Summer, 1978: 503, 505, 510c. Summer, 1979: 502, 504, 510b.)

- 501 CONVERSATION AND COMPOSITION (4)
Prerequisite: Spanish 401 or equivalent. Syntax, written and oral composition, conversation, based on topics reflecting the history of Spanish civilization from the beginnings to the Renaissance.

502 CONVERSATION AND COMPOSITION (4)

Prerequisite: Spanish 401 or equivalent. Syntax, written and oral composition, conversation, based on topics reflecting the history of Spanish civilization from the Golden Age to the nineteenth century.

503 CONVERSATION AND COMPOSITION (4)

Prerequisite: Spanish 401 or equivalent. Syntax, written and oral composition, conversation, based on topics reflecting contemporary Hispanic civilization.

504 APPLIED LINGUISTICS (4)

Studies of problems of Spanish structure as related to the classroom situation.

505 HISTORY OF THE SPANISH LANGUAGE (4)

The development of the Spanish language from Latin to the present day; the study of phonology, morphology and syntax.

510 SEMINAR IN LITERATURE (4 ea)

Three seminars required. Emphasis on teaching literature in the community college, high school and elementary school. Topics to be announced in advance from the following:

510a Spanish Civilization

A study of the evolution of Spanish civilization from its earliest history to the present.

510b Spanish-American Civilization

A study of Spanish-American civilization from pre-Columbian times to the present.

510c Culture of the Spanish-Speaking People of the World Through Literature

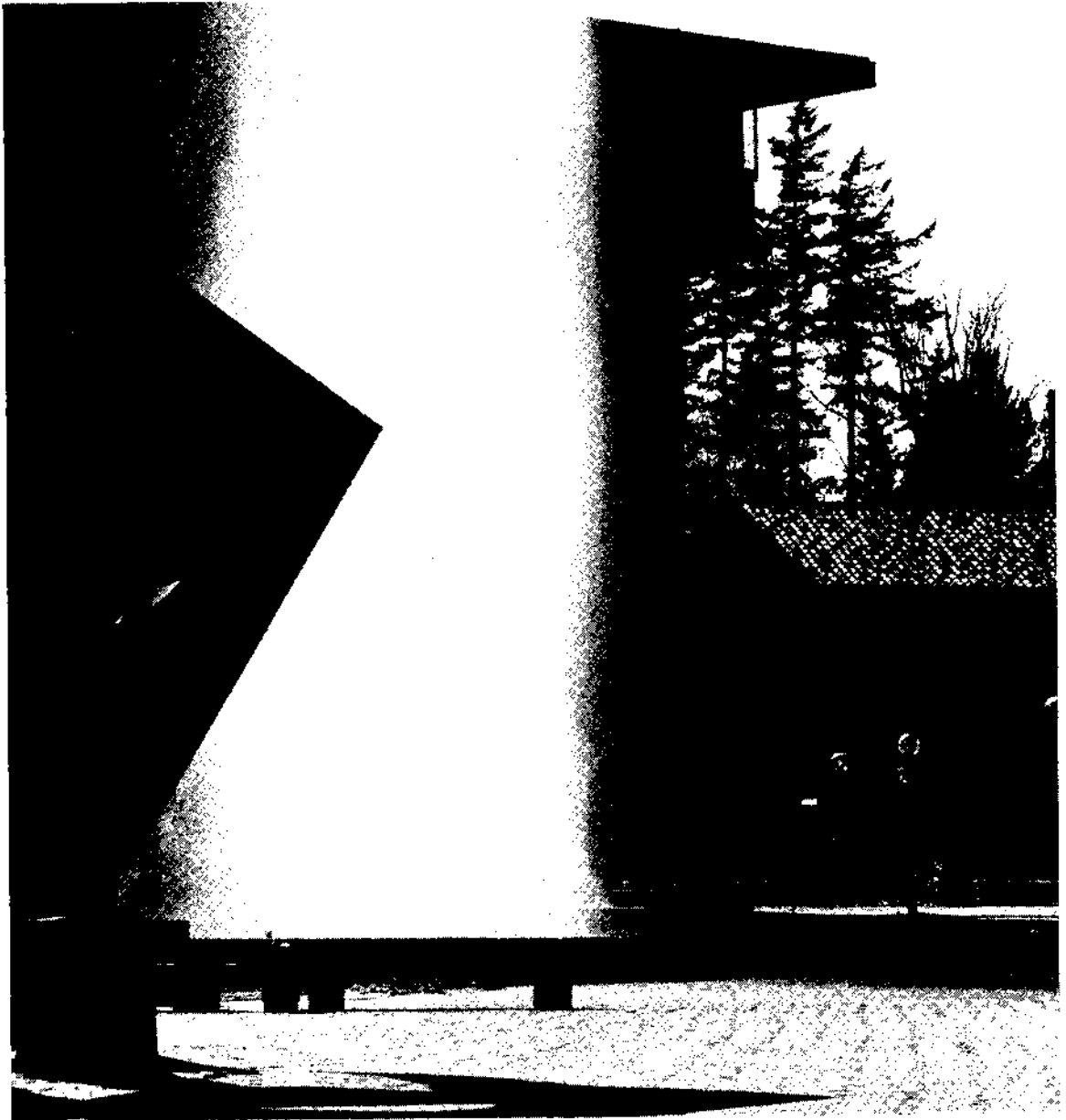
(Other elective special topic seminars in literature will be added as indicated by demand.)

532 THE TEACHING OF SPANISH (4)

Methods and materials for teaching Spanish in the community college, secondary and elementary schools.

598 DIRECTED INDIVIDUAL STUDY (1-4)

Prerequisite: admission to graduate standing.





GENERAL STUDIES

College of Arts and Sciences

The General Studies Department serves the Western Washington State College community in two ways:

1. The General Studies Department offers interdisciplinary courses that partially fulfill the WWSC General Education requirement. (See the Arts and Sciences section of this catalog for the complete General Education requirements and the various options for their fulfillment.)
2. The General Studies Department also offers a Liberal Studies major. This major is a program that crosses traditional departmental lines and permits work in areas where there is no existing departmental program. Completion of this major results in a Bachelor of Arts degree in Liberal Studies. Model programs are available for majors in Religious Studies, Medieval Studies, Classical Studies, area studies and folklore in the General Studies office.

BACHELOR OF ARTS IN LIBERAL STUDIES

Arts and Sciences Major 60 credits

Rationale

This major is designed to meet the needs of those students who can profit most from an interdisciplinary approach to study. It is meant to provide a disciplined approach to integrated study. For each student choosing this major, the subject matter would be organized in consultation with his departmental adviser and approved by a committee of the department, rather than being stipulated by a departmental curriculum. The student and his adviser will construct a program that involves work in more than one discipline. The proposed program must receive the support of two other faculty members who will then, with his major adviser, comprise the student's committee.

Bachelor of Arts in Liberal Studies

- General Studies 201 or 202
- General Studies 301
- General Studies 499
- Electives approved by departmental major committee

No program may substantially duplicate an existing major; normally not more than 30 of the 60 units may be taken from any one department, other than General Studies. Not more than 20 units taken prior to enrollment in General Studies 300 may be applied to the major. Forty of the units of the major must be 300 level or above. Credits used to satisfy general education or minor requirements may not be applied to the major.

Competence in a foreign language is recommended for all Liberal Studies majors and may, where appropriate, be required as supporting courses for some. A more detailed description of the major is available in the General Studies office.

GENERAL STUDIES FACULTY

- ROSCOE L. BUCKLAND (1970) Chairman. Professor. BA, MA, University of Idaho; PhD, State University of Iowa.
- NITA CLOTHIER (1964) Assistant Professor. BA, MEd, Western Washington State College.
- BRIAN P. COPENHAVER (1971) Associate Professor. AB, Loyola College; MA, Creighton University; PhD, University of Kansas.
- JESSE HIRAOKA (1972) Director of Human Services and Professor of General Studies/Ethnic Studies. BA, Roosevelt University; MA, University of Chicago; PhD, Northwestern University.
- MILTON H. KRIEGER (1970) Associate Professor. BA, Reed College; PhD, University of Toronto.
- ULRICH MAMMITZSCH (1971) Associate Professor. BA, University of Hamburg, Germany; MA, Southern Illinois University; PhD, University of Hawaii.
- RODNEY J. PAYTON (1970) Assistant Professor. BA, MA, Washington State University; PhD, University of Chicago.
- WILLIAM K. B. STOEVER (1970) Assistant Professor. BA, Pomona College; BD, Yale Divinity School; PhD, Yale University.
- WILLIAM L. WALLACE (1970) Assistant Professor. BS, Appalachian State University (North Carolina); MA, PhD, Ohio University.

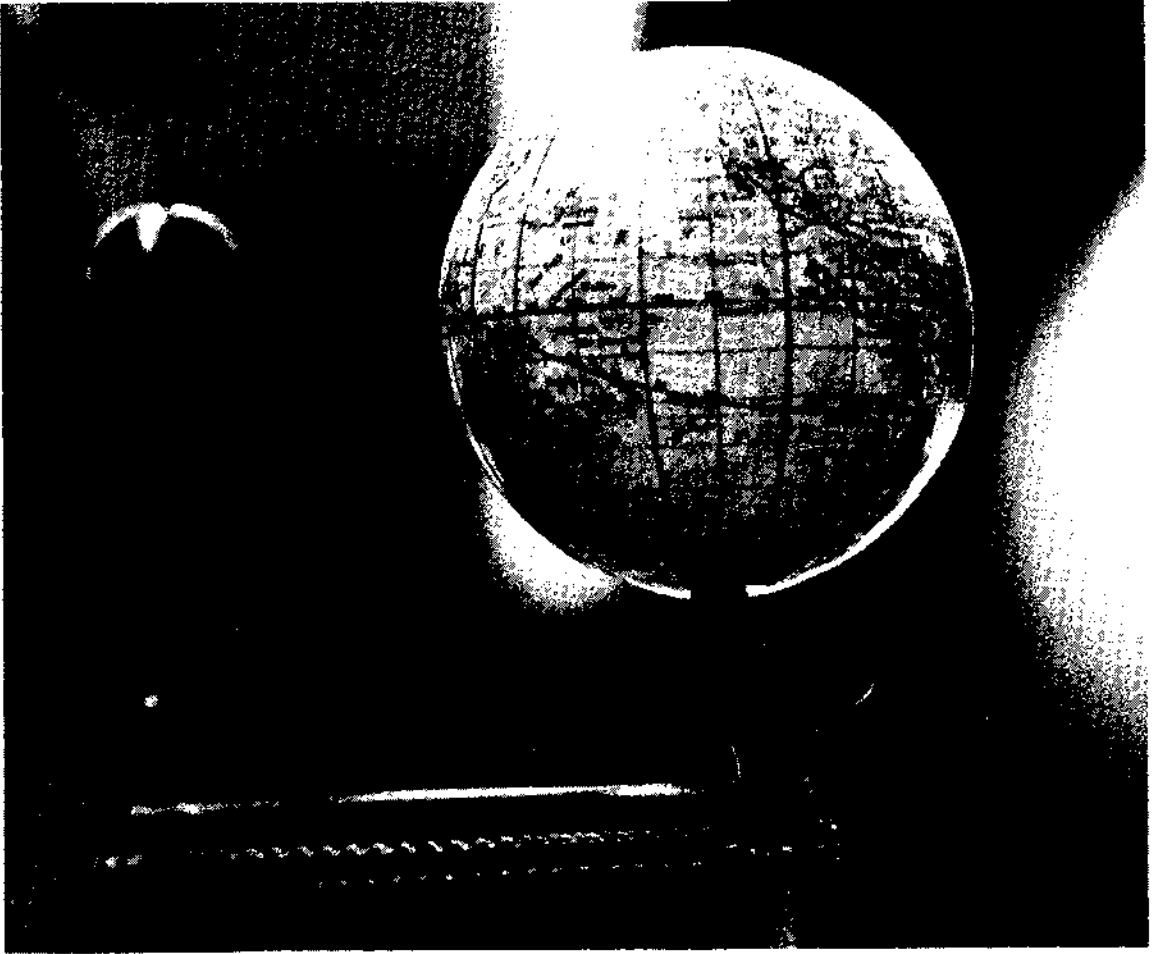
GENERAL STUDIES COURSES

- 105 BEHAVIORAL SCIENCE (5)
Man as a biological, psychological and social organism; the processes of perception, learning and motivation, and their social and cultural context.
- 121, 122, 123 HUMANITIES (5 ea)
(These courses need *not* be taken in sequence.)
Ideals and their expression in the Western Tradition. Interdisciplinary introduction to significant cultural themes from art, music, history, philosophy, literature; readings, discussions, lectures, arts programs.
- 121 The Western Tradition I: The Ancient World
Concepts of man in Near Eastern and Mediterranean cultures: Mesopotamia, Egypt, Greece, Palestine, Rome.
- 122 The Western Tradition II: Concepts of Man in Medieval and Modern Europe
Emphasis on emergent "Modernity" and associated problems of "world-view," authority vs. reason, the individual in the universe.
- 123 The Western Tradition III: Man in Modern Times
Nineteenth and twentieth century ideologies; their philosophies of man: alienation and integration of the individual in society.
- 200 INTRODUCTION TO ECONOMIC AND POLITICAL INSTITUTIONS (4)
Investigation of economic, legal, and political institutions in the context of private property from the preconstitution period to the present.
- 201 INTRODUCTION TO INTERDISCIPLINARY STUDIES (4)
Methods and principles of interdisciplinary studies through investigation of an interdisciplinary problem.
- 202 INTRODUCTION TO AMERICAN STUDIES (4)
Methods and principles of interdisciplinary studies through investigation of a topic in American studies. Also offered as American Studies 202.
- 231 INTRODUCTION TO THE STUDY OF RELIGION (3)
Examination of religious phenomena from several scholarly perspectives. Topics include mysticism, corporate religion, symbolism and ritual, contemporary developments. Readings, lectures, discussion.
- 232 MYTH AND FOLKLORE (4)
An introduction to the study of myth and folklore and its cultural impact. Lectures, readings, discussion.
- 233 RELIGION IN AMERICA (4)
Examination of the place of religious values, traditions and institutions in American culture, from historical, social-scientific and religious-phenomenological perspectives. Directed toward fuller understanding of contemporary issues and events. Readings, lectures, discussion.
- 237 FOREIGN STUDY (2-5)
(See General Studies 437.)
- 242 MUSIC AND THE IDEAS OF WESTERN MAN (4)
The relation of the art of music to mathematics, cosmology, psychology and aesthetics.
- 271 HUMANITIES OF INDIA (4)
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.



General Studies

- 272 MYTHOLOGY/RELIGION AND SOCIETY IN CHINA AND JAPAN (4)
Study of formal religious thought and of popular religion in the traditional cultures, the impact of Christian denominations, and the character of contemporary religious life.
- 273 ARTISTIC EXPRESSION AND SOCIETY IN CHINA AND JAPAN (4)
Studies of the aesthetic traditions of East Asia, both courtly and popular, secular and religious, followed by consideration of the impact of foreign ideas and of the recent role of art in the propaganda, architecture and industrial design as well as in traditional modes of expression.
- 274 SOCIETY AND LITERATURE IN CHINA AND JAPAN (4)
Study of Chinese and Japanese authors from traditional and modern times, emphasizing the forms of literary expression and literature as a guide to social attitudes and value systems.
- 275 HUMANITIES OF JAPAN (4)
An interdisciplinary introduction to Japanese civilization, both traditional and modern, with particular emphasis on religions, historical, artistic, and literary patterns, societal and cultural ideals.
- 276 HUMANITIES IN AFRICA (4)
Introduction to 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 that heritage.
- 301 SPECIAL PROBLEMS (2-5)
Prerequisite: General Studies 201. Development of student plan of study, preparation of bibliography, completion of a program of reading, planning for a final project.
- 310 SPECIAL TOPICS IN THE HUMANITIES (3)
Prerequisite: junior status. Ideas and issues in Western and non-Western culture. Subject, instructor and syllabus announced prior to registration.
- 311 GREAT BOOKS REPRESENTATIVE OF THE HUMANITIES (3)
Prerequisite: junior status. Reading list, instructor and syllabus announced prior to registration.
- 331 MAGIC, ASTROLOGY, WITCHCRAFT, DEMONOLOGY: THE ACADEMIC STUDY OF OCCULTISM (4)
Prerequisite: junior status. The academic analysis of various occultist beliefs and practices (magic, astrology, witchcraft, demonology, Cabala, numerology, divination, alchemy, magical medicine) in the Western tradition from historical, social-scientific, and philosophical points of view. Lectures, discussions, and readings in primary and secondary sources.
- 332 UNIVERSAL RELIGIONS: FOUNDERS AND DISCIPLES (4)
Prerequisite: junior status. Examination of traditional images of founders of religions and quasi-religions which make universal claims; of the emergence of second-generation teaching by disciples and the subsequent growth of tradition; and of problems of cultural diffusion. Reading, lectures, discussion.
- 337 FOREIGN STUDY (2-5)
(See General Studies 437.)
- 341 ART AND IDEOLOGY: THE EFFECTS OF IDEOLOGY UPON THE FINE ARTS IN MODERN AND EARLY MODERN EUROPE (3)
Prerequisite: junior status or one course in art history or music history. An examination of the relationships that exist between the fine arts of a society and its major ideologies.
- 342 THE FOUNDATIONS OF SCIENTIFIC INQUIRY: AN INTRODUCTION TO SOME PROBLEMS IN THE HISTORY AND PHILOSOPHY OF SCIENCE (4)
Prerequisite: junior status. A study of selected issues in the philosophy of science through selected cases from the history of science. Emphasis on problems of explanation, verification, induction, reductionism, and scientific method and on materials from the history of physics, biology, and chemistry.
- 371 THE PROCESS AND PROBLEMS OF MODERNIZATION IN THE NON-EUROPEAN WORLD (4)
Prerequisite: junior status. Examination of human and cultural effects of modernization, through case studies and theoretical models; primarily Asia and Africa in the 20th century.
- 372 MODERNIZATION AND THE PLACE OF THE INDIVIDUAL IN THE NON-EUROPEAN WORLD (4)
Prerequisite: junior status. The effects of rapid change on individuals and the resulting reflections about the place of individuals in society, as shown in novels, autobiography, poetry, and other literary expressions from contemporary Asia and Africa.
- 373 STRATEGIES AND VISIONS OF MODERNIZATION IN THE NON-EUROPEAN WORLD: CONSERVATIVES, REFORMERS, REVOLUTIONARIES (4)
Prerequisite: junior status. Studies based on the 20th century non-European literature on modernization, emphasizing the total range of ideology about the values of tradition and modernity and their incorporation in contemporary societies.
- 432 AMERICAN FOLKLORE (4)
Prerequisite: Gen St 232 or one course in American history of American literature. American folklore in its various forms: folk tale, folk song and dance, proverb, superstition, nature lore, myth, and hero legend.
- 437, 337, 237 FOREIGN STUDY (2-5)
A study of humanities topics particularly appropriate to the location of the course offering. These courses are offered only through the WWC Study Abroad program. Contact Foreign Study Office, Miller Hall 353, for information.
- 441 THE DEVELOPMENT OF EROTIC AND ROMANTIC LOVE IN WESTERN CULTURE (3)
Prerequisite: Gen St 105 or Anth 201. Primitive, classical, and European attitudes toward "love" and sex, courtly romantic love and its incorporation into the institution of marriage will provide background for an examination of erotic love in our own culture. Readings from the Old Testament, a Greek play, writings of courtly love, modern novels, and popular anthropologists and sociologists.
- 465 CULTURE ON THE AMERICAN FRONTIER (3)
A study of the motives and modes of cultural activity in the frontier community.
- 466 POPULAR CULTURE (4)
Prerequisite: History 103 or 104. Popular 19th century American ideas expressed in the arts and the sciences, and in cultural activities and ceremonies.
- 480 STUDIES IN HUMANISTIC EDUCATION: THE HUMANITIES APPROACH (3)
Prerequisite: permission of department. Foundations in humanistic education. Consideration of the manner in which humanities materials are presented. Demonstration and discussion of presentation and integration of material, of course design; individual projects. Offered as part of the Colloquium in Humanistic Education during summer quarter. Open to all interested students.
- 499 SPECIAL PROBLEMS (3)
Project designed to demonstrate the student's interdisciplinary focus.



GEOGRAPHY & REGIONAL PLANNING

College of Arts and Sciences

THE SCIENCE OF GEOGRAPHY

Defined by some as a physical science, by others as a social science, geography is pre-eminently a science of spatial relationships. It focuses attention on many aspects of man and his use of the environment. Among these are population and settlement; land use and resources; and the physical environment itself, including the nature and patterns of landforms, climate, soils and vegetation.

THE DEPARTMENT

Faculty

The members of the department are scholars whose special interests and training span most of the sub-fields of the discipline. Most have had first-hand experience in foreign countries of

Europe, Africa, South and East Asia, Australasia and Latin America. Individual faculty members participate in such college programs as the Center for Pacific Northwest Studies, the Canadian and Canadian/American Studies Program, and the Urban and Regional Planning Program.

Course Offerings

The department provides more than 40 undergraduate courses and about a dozen graduate courses. These fall into three principal categories: (1) those which deal with particular regions of the world, such as the Middle East, Africa or the United States and Canada, (2) those treating major sub-fields of the discipline, such as biogeography, transportation or the conservation of natural resources; and (3) those which provide opportunities to develop specific skills in techniques of geographic research, such as cartography, air-photo interpretation and quantitative methods.

Facilities

A major facility of the department is its well-stocked map library, which contains more than 120,000 sheet maps of many sorts, together with aids to cartographic and photogrammetric research. The library is an official depository for maps issued by such agencies as the United States Geological Survey, the United States Defense Mapping Agency and the Canadian Department of Energy, Mines and Resources. A permanent staff map curator is in charge of the collection. A well-equipped cartographic laboratory, the services of a permanent staff cartographer, a wide variety of equipment for field research, and an extensive wall-map collection are further aids to teaching and research. In addition, more than 120 English language and foreign geographical journals are available in Wilson Library.

CAREERS IN GEOGRAPHY

Although many of Western's graduates in geography have become teachers either at the elementary or secondary level, opportunities in other fields have increased in recent years. Urban and regional planning, business and industry, government service, insurance and transportation have provided excellent openings for many recent graduates. For those graduates who demonstrate ability in such techniques of geographic research as statistical and cartographic analysis, the employment options are much increased. Particularly useful for the acquisition of such skills is the extended minor in cartography.

GEOGRAPHY FACULTY

- JAMES W. SCOTT (1966) Chairman, Associate Professor. BA, MA, Cambridge University; PhD, Indiana University.
- HOWARD J. CRITCHFIELD (1951) Professor. BA, MA, PhD, University of Washington.
- JANE H. EHEMANN (1973) Assistant Professor. BA, College of Wooster; MA, University of Pittsburgh; EdD, University of Georgia.
- ROBERT L. MONAHAN (1955) Professor. BA, University of Washington; MA, University of Michigan; PhD, McGill University.
- DEBNATH MOOKHERJEE (1961) Professor. BS, MSc, University of Calcutta; PhD, University of Florida.
- FRANKLIN C. RANEY (1966) Associate Professor. BS, University of Chicago; MS, Washington State University; PhD, University of California, Davis.
- RICHARD G. SMITH (1970) Associate Professor. BS, University of Alaska; MS, PhD, University of Wisconsin.
- THOMAS A. TERICH (1973) Associate Professor. BA, MA, California State University, L.A.; PhD, Oregon State University.
- ROBERT W. TESHARA (1965) Associate Professor. BA, BA in Ed, Western Washington State College; PhD, University of Washington.
- MANFRED C. VERNON (1964) Honorary Lecturer in Political Geography. LLB, University of Cologne; JD, University of Berlin; PhD, Stanford University.

BACHELOR OF ARTS

The program of the undergraduate major or minor in geography should include fundamental courses in both the natural sciences and the social sciences. The department will recommend supporting courses related to the student's career objectives. The student contemplating work toward a graduate degree is advised to acquire a reading knowledge of a foreign language and competence in statistics and/or computer science during his undergraduate years. Departmental adviser should be consulted at an early date for assistance in program planning.

Some courses will be offered only on an alternate year schedule. Students should note this in planning their programs and should consult their departmental adviser.

Major—Geography 73 credits

- Geography 201, 203, 207, 301, 351, 453 or 454, and 486
- Two courses from Geography 310, 311, 312, 314, 315, 316, 318, 319, 320, 321, 322, 485
- One course from Geography 330, 331, 422, 423, 424, 426
- Two courses from Geography 341, 345, 346, 348, 352, 353, 407, 408, 409, 421, 430, 440, 442, 444, 451, 452
- Supporting course: Mathematics 240
- Electives under departmental advisement

Minor—Geography 25 credits

- Geography 201
- Electives under departmental advisement

Extended Minor—Cartography 35 credits

- Geography 351, 352, 353, 451, 452
- Computer Science 110 or 210, 211
- One course from Huxley 313, Technology 240
- Electives from Geography 251, Art 371, 372, Mathematics 240, Technology 440

Major—Urban and Regional Planning

See Urban and Regional Planning section directly following the geography course listings.

BACHELOR OF ARTS IN EDUCATION

Some courses will be offered only on an alternate year schedule. Students should note this in planning their schedules and should consult their departmental adviser. For interdisciplinary combinations and certification requirements for

secondary teaching in geography and the social sciences, see Interdepartmental Programs section.

Major Elementary 45 credits

- Geography 201, 203, 251, 310, 421, 460
- Five credits from Geography 311, 312, 314, 315, 316, 318, 319, 320, 321, 322, 485
- One course from Geography 330, 331, 351, 353, 422, 423, 424, 426, 453
- One course from Geography 207, 301, 341, 345, 346, 348, 430, 440, 442, 486
- Electives
- All selections are to be made under departmental advisement

Major Secondary 45 credits

- Geography 201, 203, 207, 251, 460
- Five credits from Geography 310, 311, 312, 314, 315, 316, 318, 319, 320, 321, 322, 485
- One course from Geography 330, 331, 422, 423, 424, 426
- One course from Geography 341, 345, 346, 348, 407, 408, 409, 421, 430, 440, 442, 486
- One course from Geography 301, 351, 353, 453, 454
- Electives
- All selections are to be made under departmental advisement

Minor 25 credits

- Geography 201
- Geography 203 or 207
- 15 credits in upper-division courses under departmental advisement

Extended Minor 35 credits

(Alternate minor for teaching competency recommendation.)

- Geography 201, 203 or 207, 251, 460
- 6 credits from Geography 310, 311, 312, 314, 315, 316, 318, 319, 320, 321, 322, 485
- 6 credits from Geography 330, 331, 407, 408, 409, 421, 422, 423, 424, 426, 435, 440, 442, 453, 470, 486
- Electives under departmental advisement

Teaching Competence

Recommendation for teaching competence requires completion of the major or extended minor outlined above with a grade average of 2.5 or better.

GRADUATE STUDY

For concentrations in geography leading to Master of Education, Master of Arts or Master of Science degrees, see *Graduate Bulletin*.

COURSES IN GEOGRAPHY

- 101 THE NATURAL ENVIRONMENT (4)**
Elements, processes, and interrelationships in the natural environment of man. (Geography majors may not take 101 in lieu of 203.)
- 201 HUMAN GEOGRAPHY (5)**
Patterns of population and settlement; spatial analysis of economic, social and political organization.
- 203 PHYSICAL GEOGRAPHY (5)**
Principles and techniques in analysis of areal distributions in the natural environment: landforms, water, climate, soils, vegetation.
- 207 ECONOMIC GEOGRAPHY (5)**
Location analysis of economic activities; interrelationships of resources, industry, trade and transportation.
- 210 GEOGRAPHY AND WORLD AFFAIRS (2)**
Geographical analysis of selected demographic, economic, political and social problems of the contemporary world.
- 215 INTRODUCTION TO PLANNING (5)**
Basic elements of urban, regional and resource planning; planning tools and techniques; careers in professional planning.
- 251 MAP READING AND ANALYSIS (2)**
Interpretation of map symbols and content at different scales; analysis of different types of maps and charts.
- 297a ECONOMIC GEOGRAPHY OF MEXICO (5)**
Systematic examination of the patterns of location of economic activities, including primary, secondary, and tertiary functions. Regional differences in the utilization of resources of the country. (In Guadalajara.)
- 297b THE NATURAL ENVIRONMENT OF NORTHWEST WASHINGTON (3)**
Natural environment of Northwest Washington: physical characteristics, interrelationships and distributions of past and present dynamic forces in the evolution of the natural landscape.
- 301 GEOGRAPHIC THOUGHT AND WRITING (5)**
Prerequisites: Geog 201, 203, 207. Source materials and techniques of geographic writing; emphasis on the nature and development of geography.
- 310 THE PACIFIC NORTHWEST (3)**
Prerequisite: Geog 201 or 203 or 207. Environments, settlement, resources, and economic development of the Pacific Northwest.
- 311 THE UNITED STATES AND CANADA (5)**
Prerequisite: Geog 201. Environments, resources, settlement and economies of Canada and the United States.
- 312 ARCTIC ENVIRONMENT (3)**
Prerequisite: Geog 201. Topical examination of physical environment, modern settlement and the development of resources in northern Canada and Alaska.

Geography & Regional Planning

- 314 **LATIN AMERICA (5)**
Prerequisite: Geog 201. Peoples, resources, regions and economic and political development of South and Central America.
- 315 **ASIA (5)**
Prerequisite: Geog 201. Asia's settlement, population, economic resources and activities, and associated problems.
- 316 **EUROPE (5)**
Prerequisite: Geog 201. Peoples, resources, regions; the economic, social and political development of Europe. Normally offered alternate years.
- 318 **THE PACIFIC (3)**
Prerequisite: Geog 201. Environments, resources, and settlement of the Pacific Islands, Australia, and New Zealand. Normally offered alternate years.
- 319 **AFRICA (5)**
Prerequisite: Geog 201. Resources, peoples, regions; economic, social and political development of Africa.
- 320 **THE U.S.S.R. (3)**
Prerequisite: Geog 201. Environments, resources, industries, population, and settlement of Soviet Union with emphasis on its role in world affairs. Normally offered alternate years.
- 321 **INDIA, PAKISTAN AND BANGLADESH (3)**
Prerequisite: Geog 201. Environments of India, Pakistan and Bangladesh; their resources, population and economic activities; emphasis on contemporary problems. Normally offered alternate years.
- 322 **THE MIDDLE EAST (3)**
Prerequisite: Geog 201. Environment, resources, culture and problems of Southwest Asia and North Africa. Normally offered alternate years.
- 330 **GEOGRAPHY OF LANDFORMS (5)**
Prerequisite: Geog 101 or Geog 203 or Geol 101. Topical and regional analysis of landforms; interrelationships of landforms and other physical and cultural phenomena.
- 331 **CLIMATOLOGY (5)**
Prerequisite: Geog 101 or 203 or Physics 101. Elements of climate, climatic regions, and climate as an environmental factor.
- 341 **URBAN GEOGRAPHY (5)**
Prerequisite: Geog 201. Geographic relations of the modern city with emphasis upon the development, functions and problems of American cities.
- 345 **HISTORICAL GEOGRAPHY OF THE UNITED STATES (3)**
Prerequisite: Geog 311 or course in American history. Past geographies of the United States since 1776, and analysis of geographical change through time of selected regions of the country. Normally offered alternate years.
- 346 **HISTORICAL GEOGRAPHY OF CANADA (3)**
Prerequisite: Geog 311 or course in Canadian history. Analysis of Canada's changing geographical patterns in the 19th and 20th centuries. Normally offered alternate years.
- 348 **POLITICAL GEOGRAPHY (3)**
Prerequisite: Geog 201. Spatial analysis of political phenomena; problems of territorial organization, boundaries, resource management; current problem regions. Normally offered alternate years.
- 351 **CARTOGRAPHY (5)**
Map and chart design, construction and reproduction; computer mapping.
- 352 **COMPUTER MAPPING (3)**
Prerequisite: Geog 351 or CS 110 or 210. Conceptual exploration of existing mapping programs; interactive work with electronic digitizers and cathode ray tube displays; exploration of the capabilities and limitations of various computer-driver graphic display systems.
- 353 **AERIAL PHOTO AND MAP INTERPRETATION (3)**
Prerequisite: 4 credits in geography. Geographic interpretation of aerial photographs and maps; remote sensing techniques and analyses.
- 372 **RECREATION RESOURCE PLANNING (4)**
Concepts, methods and application of outdoor recreation planning.
- 397b **SETTLEMENTS OF MEXICO (5)**
Cities, towns and villages; why they are where they are; readings, map and statistical applications; field observation. (In Guadalajara.)
- 400 **SPECIAL PROBLEMS IN GEOGRAPHY (2-5)**
Individual projects under supervision.
- 407 **AGRICULTURAL GEOGRAPHY (3)**
Prerequisite: Geog 201 or 207. Agricultural types, production, and commodities, land use and land tenure.
- 408 **GEOGRAPHY OF MANUFACTURING (3)**
Prerequisite: Geog 207. Manufacturing types, industrial land use, production, locational factors.
- 409 **TRANSPORTATION GEOGRAPHY (3)**
Prerequisite: Geog 201 or 207. Transportation systems and analysis of their spatial impact.
- 421 **NATURAL RESOURCES MANAGEMENT (5)**
Prerequisite: Geog 201 or 203 or 207. Conservation as an operational philosophy and as an instrument of policy; legal and institutional options for conservation of mass and energy in the ecosystem.
- 422 **GEOGRAPHY OF WATER RESOURCES (5)**
Prerequisite: Geog 101 or Geog 203 or Geol 101. Water sources, sinks, shunts and loops of continents and basins; quality, quantity, allocation and legal aspects of water use.
- 423 **GEOGRAPHY OF SOILS (3)**
Prerequisite: Geog 101 or Geog 203 or Geol 101. Soil formation, characteristics, classification, mapping and management for agriculture and engineering; field trips and laboratory study.
- 424 **BIOGEOGRAPHY (3)**
Prerequisite: Geog 101 or Geog 203 or Biol 101. Distribution and environmental relationships of world biomes and their subdivisions; origin and dispersal of agricultural plants, animals, insects and diseases.
- 426 **THE URBAN ENVIRONMENT (3)**
Prerequisite: Geog 203. Urban influences on the natural environment; applied physical geography of cities; environmental factors in urban planning.
- 430 **URBAN AND REGIONAL PLANNING (5)**
Prerequisite: Geog 341 or concurrent. Synthesis and application of the principles, problems and techniques of urban, suburban and rural land use planning.
- 432 **PLANNING PRACTICUM (6-12)**
Prerequisites: completion of two-thirds of major requirements and permission of instructor. Participation in aspects of community development and planning under professional and academic supervision.

- 440 **GEOGRAPHY OF POPULATION (3)**
Prerequisite: Geog 201 or Soc 321. World distribution of population; patterns of population composition, fertility and mortality, inter- and intra-regional migrations; resources and population growth.
- 442 **GEOGRAPHY OF SETTLEMENT (3)**
Prerequisite: Geog 201. Geographical analysis of rural and urban settlement; origins, diffusion, and patterns in selected regions.
- 444 **THE DEVELOPING WORLD: SPATIAL PROBLEMS, STRATEGIES AND SOLUTIONS (3)**
Prerequisite: Geog 201 or 207. 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.
- 451 **MAP REPRODUCTION AND GRAPHICS (3)**
Prerequisite: Geog 351. Fundamentals of map reproduction and graphics through photographic and non-photographic processes.
- 452 **ADVANCED CARTOGRAPHY (3-5)**
Prerequisites: Geog 351 and permission of instructor. Development and maintenance of data files for use with computer mapping systems; interactive program development; special projects involving computer mapping systems and/or other mapping techniques.
- 453 **FIELD METHODS IN GEOGRAPHY (3)**
Prerequisite: Geog 351. Recording, mapping, and analysis of physical and cultural features.
- 454 **ANALYSIS OF AREAL DATA (4)**
Prerequisite: Math 240. Statistical and cartographic techniques in solving geographic problems.
- 455 **GEOGRAPHY FIELD CAMP (3)**
Prerequisite: permission of instructor. Methods of geographical field investigation. Field sketching and use of field instruments. Investigation of an individual problem in the field.
- 460 **THE TEACHING OF GEOGRAPHY (3)**
Prerequisite: 20 credits in geography. Source materials and methods of geographic instruction.
- 485 **SEMINAR IN REGIONAL GEOGRAPHY (5)**
Prerequisite: permission of instructor. Spatial analysis of a selected world region. May be repeated for credit.
- 486 **SEMINAR IN SYSTEMATIC GEOGRAPHY (5)**
Prerequisite: permission of instructor. Selected topics in cultural, economic or physical geography. May be repeated for credit.
- 500 **SPECIAL PROBLEMS IN GEOGRAPHY (2-5)**
Prerequisites: graduate standing and permission of instructor. Advanced individual projects under supervision.
- 501 **SEMINAR IN HISTORY AND PHILOSOPHY OF GEOGRAPHY (4)**
The evolution of geographic concepts and methodology with emphasis on contemporary geographic philosophy and current literature in the field.
- 510 **TECHNIQUES IN GEOGRAPHIC RESEARCH (5)**
Application of bibliographic, cartographic, statistical, and field techniques in geographic investigation.
- 511 **SPATIAL ANALYSIS (5)**
Quantitative techniques in spatial analysis with emphasis on problems in urban and regional planning.
- 520 **SEMINAR IN REGIONAL GEOGRAPHY (5)**
Methods of regional analysis applied in the detailed study of a world region.
- 521 **SEMINAR IN GENERAL PHYSICAL GEOGRAPHY (5)**
Topics in physical geography.
- 522 **SEMINAR IN GENERAL HUMAN GEOGRAPHY (5)**
Topics in general human geography.
- 531 **ADVANCED SEMINAR IN PHYSICAL GEOGRAPHY (5)**
Prerequisite: Geog 521. Topics in advanced physical geography.
- 532 **ADVANCED SEMINAR IN HUMAN GEOGRAPHY (5)**
Prerequisite: Geog 522. Topics in advanced human geography.
- 560 **PROBLEMS IN SYSTEMATIC GEOGRAPHY (5)**
Prerequisites: Geog 510 and 521 or 522. Directed research on a selected topic in physical or cultural geography.
- 573 **ENVIRONMENTAL PROBLEMS IN URBAN AND REGIONAL DEVELOPMENT (5)**
Cities and regions as complex systems of interdependent natural and human elements; key problems and approaches to their solution through planning.
- 590 **GRADUATE COLLOQUIUM (2)**
Current trends in geographic research.
- 600 **SPECIAL PROBLEMS IN GEOGRAPHY (2-5)**
Prerequisites: advancement to candidacy and permission of instructor. Advanced individual projects under supervision.
- 690 **THESIS (6)**
Prerequisite: advancement to candidacy for the master's degree and appointment of thesis adviser.

URBAN AND REGIONAL PLANNING

As the American experience increasingly reflects urbanization and growing pressures on space, resources and environmental quality, we face corresponding challenges in understanding the forces that determine urban patterns and in charting the course of society. Our ability to meet new threats to human welfare will determine our success in achieving current goals, but we must also anticipate changing goals for future generations. Urban and regional planners have unique opportunities to participate actively in this fundamental exercise of mankind's ingenuity.

Urban and Regional Planning at Western Washington State College

The core of the present urban and regional planning curriculum existed in the form of

Geography & Regional Planning

separate departmental courses at Western for several years prior to organization of a systematic program in 1964. Since then enrollment in the program has increased rapidly, indicating a growing awareness of and concern over our environmental problems.

An interdisciplinary approach, based on the strengths of 10 departments in the College of Arts and Sciences and Huxley College of Environmental Studies characterizes the program. The Department of Geography administers the program with support from other departments, particularly economics, political science and sociology. This multidisciplinary character of the program, drawing upon specialized resources of the various departments, offers unique opportunities for the students to view the interrelationships of various components of the environmental problems and to analyze, identify and evaluate them. The academic program has been primarily designed to prepare students for employment in planning agencies as well as to provide a foundation for graduate study.

In addition to the requirements for the major concentration, candidates for the Bachelor of Arts degree in urban and regional planning must complete the general education requirements of the College of Arts and Sciences. These are listed in the College of Arts and Sciences section of this catalog.

Employment Opportunities

Planning is primarily a function of government; consequently, employment opportunities in the field of urban and regional planning occur mainly in a wide range of federal, state and local government agencies. Private consulting agencies and industrial firms also require the services of trained planners in such projects as real estate development or the location of commercial and industrial enterprises. Rising concern for the natural environment has greatly increased the demand for qualified planners. Inquiries should be made to the Career Planning and Placement Center of the College regarding employment opportunities.

Graduate Study

Although holders of the bachelor's degree find challenging positions in the field of planning, graduate study and completion of the master's degree are becoming common requirements for professional advancement. Students in the undergraduate urban and regional planning program are urged to consider the possibility of graduate training no later than the beginning of their senior year.

Admission to the Program

Admission policies of the urban and regional planning program are governed by the standards of the College of Arts and Sciences. Normally graduates of accredited high schools in Washington and other states are admitted if their high school records indicate promise of success. Prospective students are advised to contact the WWSC admissions office for guidance.

The admissions office also approves applications for transfer of students from community colleges and four-year colleges. Students who are in good standing in their last institution normally are admitted with a minimum of difficulty.

Transfer of Credit from Other Institutions

Students who are currently enrolled in other institutions but who intend to transfer to Western to complete the urban and regional planning program should review carefully both the general education requirements of the College of Arts and Sciences and the requirements of the planning program. Those who transfer to Western at the end of their sophomore year or later may encounter difficulties in completing all requirements within a normal four-year total period.

Ordinarily a portion of the lower division requirements may be completed at other institutions and transferred to Western. The acceptability of such courses is subject to determination by the admissions office. Their relevance to the planning program will be ascertained by a faculty adviser.

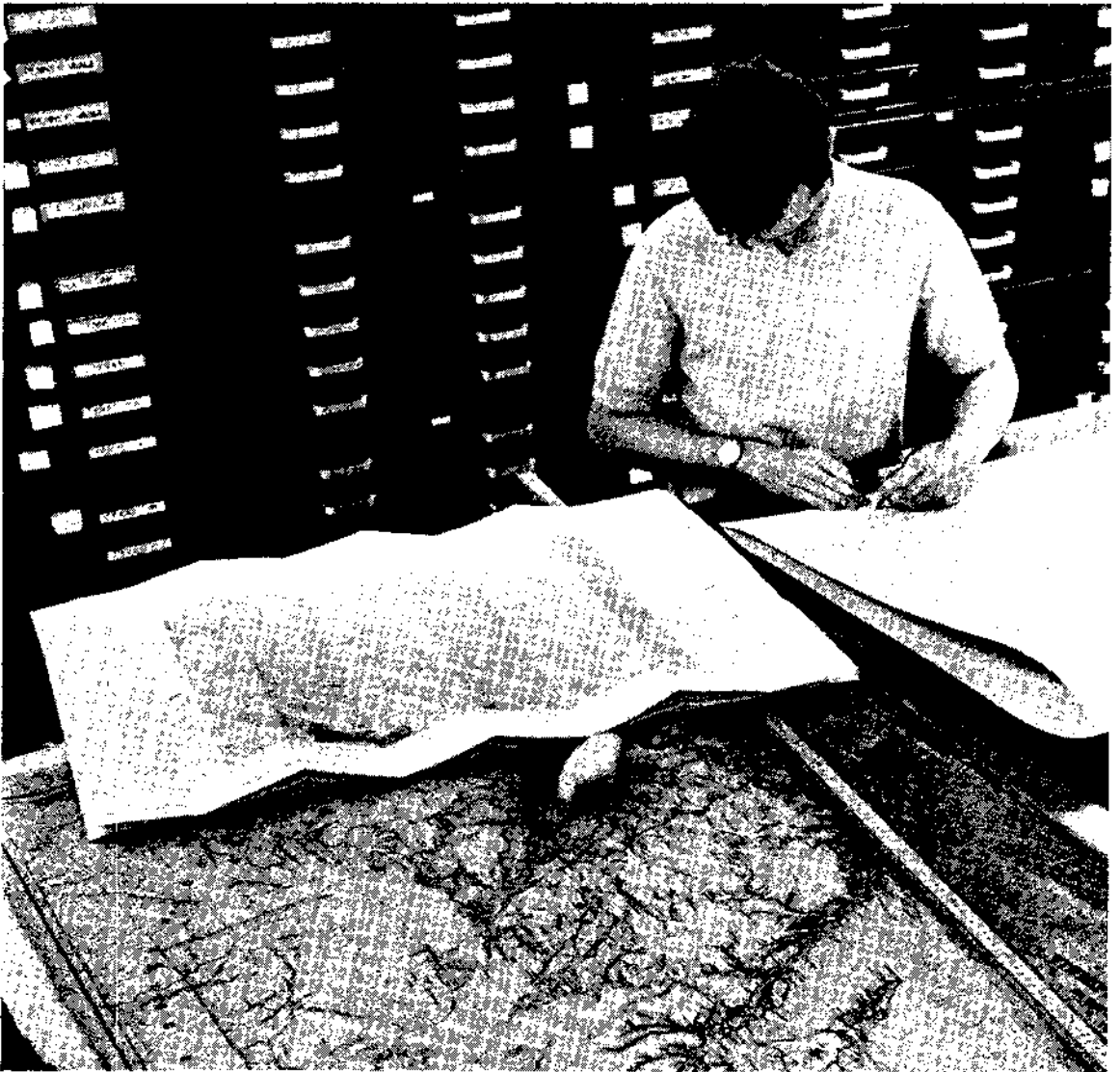
For Additional Information

Questions concerning general college requirements should be directed to the admissions office and/or the registrar. Specific questions about the urban and regional planning program may be addressed to: Director of Urban and Regional Planning Program, Department of Geography, WWSC, Bellingham, Washington 98225. Telephone (206) 676-3277.

BACHELOR OF ARTS

Major Concentration 105 credits

This undergraduate major in the arts and sciences curriculum is intended to prepare students for pre-professional service in planning agencies as well as to provide a foundation for graduate study in this field. It meets the requirements for both the major and minor concentrations. Early consultation with Dr. Debnath Mookherjee, Director of the Urban and Regional Planning Program, is essential.



Specified Requirements—Planning Core Areas

- Economics 202, 482
- Geography 201, 215, 341, 351, 430, 454
- Huxley 436
- Mathematics 240 or equivalent
- Political Science 250, 353, 421 or 455
- Sociology 202, 340
- Computer Science 110

Electives—From the alternate requirements above or from the following to complete 105 credits

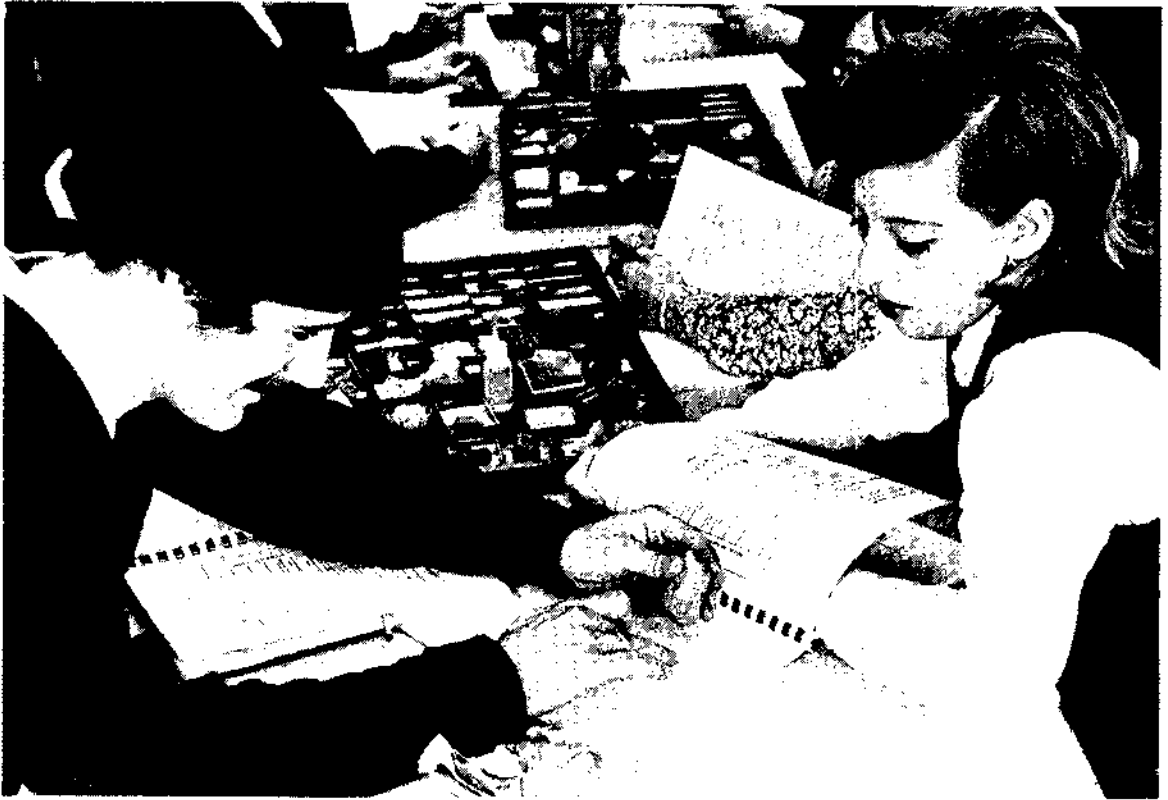
- Business Administration 408
- Economics 410, 415
- English 354
- Geography 207, 215, 310, 311, 331, 352, 353, 372, 407, 408, 409, 421, 422, 426, 432, 440, 442, 452, 453
- Health Education 447
- History 466
- Home Economics 175, 370
- Huxley 411, 412, 413, 480, 482
- Mathematics 220

- Political Science 320, 450
- Recreation & Park Management 321, 322, 372, 451
- Sociology 310, 321, 365, 415
- Anthropology 431
- Technology 210, 240, 313

It is recommended that the student concentrate his electives in either anthropology, economics, geography, political science or sociology.

Students who have satisfactorily completed two-thirds of the major requirements and who can satisfy the advisory committee that they are capable of benefiting from the experience, may receive up to 12 hours of electives by taking employment or offering as a volunteer in any established public planning agency.

For environmental planning programs, see Huxley College.



GEOLOGY

College of Arts and Sciences

The natural setting of Western Washington State College adjacent to the Cascade Mountains and Puget Sound provides an ideal situation for study of a wide variety of geologic problems.

FACULTY

At the present time the department consists of 12 faculty members who have a broad range of backgrounds covering the entire field of geology. There are about 120 geology undergraduate majors and approximately 25 graduate students in the department.

FACILITIES AND EQUIPMENT

Geology is a science which embraces investigation of the natural environment both in the field and in the laboratory. The Department of Geology occupies modern laboratories, classrooms and

offices constructed in 1976 in the Environmental Studies Center. Geology laboratory facilities and equipment are available for x-ray diffraction, x-ray fluorescence, atomic absorption, sedimentation, air photo interpretation, fume and wave tank studies, paleomagnetic analysis, geochemistry, petrography, seismology and electron microscopy. The Sundquist Marine Laboratory at Shannon Point near Anacortes provides facilities for studies in marine geology.

PROGRAMS

Objectives of the department are varied, including preparation of undergraduate and graduate students for careers as professional geologists and also preparation of earth science teachers at the primary and secondary levels. A wide variety of geologic phenomena are to be found in the adjacent Cascade Range and the marine environment of Puget Sound, providing a broad spectrum of geologic features available for study.

A number of concentrations are offered within the geology program. These include general geology, environmental geology, geochemistry, geophysics, math-geology and earth science education.

Some of the courses in these concentrations are:

Mineralogy, Petrology, Geochemistry: Crystallography, mineralogy, optical mineralogy, petrology and petrography, igneous petrography and petrology, sedimentary petrography and petrology, metamorphic petrography and petrology, geochemistry, geochemistry of solids, and clay mineralogy.

Geomorphology: Environmental geology, principles of geomorphology of Western U.S., map and air photo interpretation, glacial geology, fluvial geomorphology and coastal geology.

Stratigraphy, Paleontology, Sedimentation: Paleontology, stratigraphy and sedimentation, micropaleontology, paleoecology, biostratigraphy and geology of clays.

Geophysics: Introduction to geophysics, geotectonics, applied geophysics and paleomagnetism.

SOME EXAMPLES OF STUDENT INVOLVEMENT IN RESEARCH

North Pacific National Park Project

A grant for a two-year study of the geology of natural regions in the Pacific Northwest has been awarded by the National Park Service to Dr. Don J. Easterbrook. The \$33,900 research grant will finance geologic investigation of areas which might be suitable for inclusion in the National Park planning system and Registry of Natural Landmarks. Two students are participating in the project.

GEOLOGY FACULTY

- CHARLES A. ROSS (1964) Chairman. Professor. BA, University of Colorado; MS, PhD, Yale University.
- RANDALL S. BABCOCK (1967) Associate Professor. AB, Dartmouth College; MS, PhD, University of Washington.
- MYRL E. BECK, JR. (1969) Professor. BA, MS, Stanford University; PhD, University of California at Riverside.
- EDWIN H. BROWN (1966) Professor. AB, Dartmouth College; MSC, University of Otago; PhD, University of California, Berkeley.
- ROBERT A. CHRISTMAN (1960) Associate Professor. BS, MS, University of Michigan; PhD, Princeton University.
- DON J. EASTERBROOK (1959) Professor. BS, MS, PhD, University of Washington.
- ROSS C. ELLIS (1962) Professor. BA, Occidental College; PhD, University of Washington.
- DAVID R. PEVEAR (1967) Associate Professor. BS, Allegheny College; PhD, University of Montana.
- MAURICE L. SCHWARTZ (1968) Professor of Geology and Education. BS, MA, PhD, Columbia University.

- JAMES L. TALBOT (1976) Vice President of Academic Affairs and Professor of Geology. BA, University of Cambridge; MA, University of California, Berkeley; PhD, University of Adelaide.
- ANTONI WODZICKI (1977) Assistant Professor. BE, University of Otago; MS, University of Minnesota; PhD, Stanford University.

Research Associates

- Frank Danes (1973) BS, PhD, Charles' University, Prague, Czechoslovakia.
- Jimmy Diehl (1977) BA, MS, Western Washington State College; PhD, University of Wyoming.
- Suzanne Beske Diehl (1977) BA, University of Minnesota; MS, Western Washington State College; PhD, University of Wyoming.

BACHELOR OF ARTS IN EDUCATION

The Geology Department recommends for teaching competency those students who have satisfactorily completed requirements for the bachelor's degree in education with an earth science major or a geology minor combined with a major in one of the other physical or biological sciences.

Major—Earth Science Elementary 45 credits

- Geology 211, 212, 310, 311 (or 304, 306, and 407)
- Geography 203, 331; Physics 204, 131
- Electives under departmental advisement from Geology 214, 314, 316, 317, 319, 340, 352, 390, 399, 400, 410, 412, 414, 416, 430, 440; Geography 353; one from Geog 421, 422 or 423; Physics 315, 316, 317, 321; Biology 406

Major—Earth Science Secondary 45 credits

- Geology 211, 212, 304 or 305, 306, 310, 390, 407
- Geography 331; Physics 204, 131
- Electives from Geology 214, 314, 316, 317, 319, 340, 352, 399, 400, 410, 412, 414, 416, 418, 420, 426, 430, 440, 460; Geography 203, 353, one from 421, 422 or 423; Physics 315, 316, 317, 321

This major must be accompanied by a minor in physical science, chemistry, physics or biology; exceptions must be approved by the major department.

Combined Major --

Earth Science/Physical Science

Secondary 71-74 credits

- Geology 211, 212, 304 or 305, 306, 310, 390, 407
- Geography 331
- Chemistry 121, 122, 123

Geology

- Physics 131, 132, 133 or 231 or 331 or 332, and 204
- Phys Sci 492
- 3-5 additional credits in physics or chemistry or history of science under advisement

Minor--Geology 25 credits

- Geology 211, 212
- Electives under departmental advisement

BACHELOR OF SCIENCE DEGREE

Major Concentration 110 credits

This program is recommended for students who are preparing to become professional geologists and intend to enroll in a graduate program or enter industry upon completion of degree.

- Geology 211, 212, 305, 306, 310, 316, 317, 352, 399, 410, 416, 418, 420
- 6 credits under advisement from Geology 214, 300, 314, 319, 320, 340, 360, 400, 414, 423, 424, 425, 426, 430, 436, 440, 444, 446, 453, 454, 455, 460, 461
- Supporting courses: Chem 121, 122, 123; Physics 231, 331, 332 (or 131, 132, 133); Math 124, 125, 126 (or 124, 125, Computer Science 110); and Math 240 or Huxley 363
- Credits under advisement from chemistry, physics, math, computer science or biology to total 110 credits

Students concentrating in biostratigraphy or paleontology may be allowed substitutions in biology under advisement.

Students preparing for graduate work are advised to complete one year of a foreign language.

Environmental Geology

Major Concentration 110 credits

Core Program (Required Courses)

- Geology 211, 212, 214, 304 or 305, 306, 407 or 418 and 420, 310, 316, 317, 352, 410, 400
- Chemistry 121, 122, 123
- Physics 131, 132, 133; or 231, 331, 332
- Math 124, 125, and one of the following: Computer Science 110, Math 240 or Huxley 363; or Math 124, 125, 126
- Huxley 301
- Credits under advisement from the following Environmental Emphases courses to total 110; care should be taken to avoid duplication of courses among different disciplines

Environmental Emphases

- (a) Physical Environment--Surface Processes
 - Geology 314, 340, 416, 430, 440, 454
 - Biology 325, 402, 405, 406
 - Chemistry 208, 209, 251, 383
 - Physics 301, 302, 311, 321
 - Geography 203, 331
- (b) Natural Resources
 - Geology 319, 320, 360, 418, 420, 454
 - Biology 307, 406
 - Chemistry 208, 209
 - Geography 207, 408, 421, 422
- (c) Analytical
 - Geology 418, 420, 423, 424, 425, 444, 446, 460, 461
 - Chemistry 208, 209, 251, 301, 317, 333, 351, 352, 354, 371, 383, 471, 472, 473
 - Biology 208, 340, 408
 - Physics 155, 301, 302, 311
- (d) Marine and Fresh Water Resources
 - Geology 340, 416, 418, 420, 424, 426, 436, 444, 446
 - Biology 205, 325, 402, 403, 404, 405, 406, 461
 - Physics 301, 302

Geophysics Major Concentration

110 credits

- Geology 211, 212, 304 or 305, 306, 317, 352, 399, 407, 410, 454
- Math 124, 125, 126, 224, 301, 331, 430; Computer Science 210
- Physics 231, 331, 332, 381, 382
- Chemistry 121, 122
- Geophysics majors also are strongly urged to take as many as possible of the following: Chem 123; Geol 319, 320, 360, 453; Math 332, 431; Physics 383, 431

For advisement in this concentration, consult the department of geology or physics.

Physical Geochemistry

Major Concentration 110 credits

- Geology 211, 212, 305, 306, 317, 410, 418, 420, 444, 460, 451; one of 423, 424, 425
- Chemistry 121, 122, 123, 333, 411, 412, 413
- Math 124, 125, 126
- Physics 231, 331, 332
- Additional credits under advisement from geology, chemistry, physics, mathematics and computer science to total 110

Geophysics Extended Minor 40 credits

Suitable only for majors in a physical science or others with a strong background in mathematics and physics. NOTE: A number of these courses have prerequisites.

- Geology 211, 212, 304 or 305, 306, 317, 352, 407, 453, 454
- A minimum of five credits from the following: Geology 214, 316, 319, 320, 360, 410, 416, 455, 460

COMBINED MAJOR – GEOLOGY AND MATHEMATICS

Major Concentration 110 credits

- Geology 211, 212, 304 or 305, 306, 317, 352, 407, 410
- Math 124, 125, 126, 201, 202, 224, 331, 335, 341, 342, 375, 435; Computer Science 110, 210 or Huxley 363
- Chemistry 121
- Physics 231, 331, 332
- Additional credits under advisement from geology and mathematics to total 110

BACHELOR OF ARTS DEGREE

Major 50 credits plus Supporting Courses

An accompanying minor in one of the sciences or in mathematics is recommended.

- Geology 211, 212, 304 or 305, 306, 310, 316, 317, 407
- Electives under advisement from Geology 214, 300, 314, 319, 320, 340, 352, 360, 400, 410, 412, 414, 416, 423, 424, 425, 426, 430, 436, 440, 444, 446, 453, 454, 455, 460, 461
- Supporting courses: Chemistry 121, 122; Physics 131 or 231; Mathematics 124; 16 additional credits under advisement in physics, biology, chemistry or mathematics

Minor 25 credits

- Geology 211, 212
- Electives under departmental advisement

DEPARTMENTAL HONORS

In addition to the general requirements for all honors students, a geology major who wishes to graduate "with honors" must include Geology 399.

GRADUATE STUDY

For concentrations leading to the Master of Education or the Master of Science degrees, see *Graduate Bulletin*.

COURSES IN GEOLOGY

- 101 GENERAL GEOLOGY (4)
Principles of physical and historical geology for the non-science major, with emphasis on the structure of the earth and origin of landforms. Geology majors and those having had geology in high school should take Geology 211.
- 211 PHYSICAL GEOLOGY (5)
Prerequisite: high school or college chemistry; open to students with credit in Geol 101 only with permission of department. Origin, composition, and structure of earth. Identification of common rocks and minerals; the evolution of the surface features of continents, and interpretation of landforms from maps.
- 212 HISTORICAL GEOLOGY (4)
Prerequisite: Geol 211. History of the earth as interpreted from the rocks and the story of the development of its inhabitants; geologic history of North America and the Pacific Northwest.
- 214 ENVIRONMENTAL GEOLOGY (3)
Prerequisite: Geol 101 or 211. Role of geological processes in the natural environment. Effects of man's alteration of the earth's surface and consumption of natural resources.
- 237/337/437 FOREIGN STUDY (2-5)
A study of geological topics particularly appropriate to the location of the course offering. Presently offered only in Guadalajara. These courses are offered only through the WWSC Study Abroad program. Contact Foreign Study Office, Miller Hall 353, for information. Application of credits toward geology degree subject to approval by the department.
- 300 SPECIAL PROJECTS IN GEOLOGY (1-6)
Prerequisites: 10 credits in geology and permission of department. Special projects under supervision.
- 304 CRYSTALLOGRAPHY (1)
Prerequisites: Geol 211 and high school or college chemistry. Introduction to crystallography with emphasis on crystal study fundamental to mineral identification. Not open to those with credit in Geol 305. Can be taken concurrently with Geol 306.
- 305 CRYSTALLOGRAPHY AND CRYSTAL CHEMISTRY (3)
Prerequisites: Geol 211 and Chem 121 or equivalent. Introduction to crystallography, crystal chemistry and chemical principles fundamental to study of minerals.
- 306 MINERALOGY (5)
Prerequisite: Geol 304 or 305. Origin, occurrence, and classification of common minerals; physical and chemical properties of minerals used in identification.
- 310 GEOMORPHOLOGY (5)
Prerequisite: Geol 211. Origin and evolution of topographic features by surface processes; analysis of glaciers, streams, wind, waves, ground water, and other agents in development of landforms.
- 311 COMMON ROCKS AND MINERALS (4)
Prerequisites: Geol 101 or 211, and high school or college chemistry. More detailed work with rocks and minerals than is afforded in Geol 101 or 211; the origin, occurrence, and identification of minerals and rocks.
- 314 GEOMORPHOLOGY OF WESTERN UNITED STATES (3)
Prerequisite: Geol 101 or 211. Geological forces and processes that have shaped the landscape of the West; origin of scenic geological features in the national parks.

Geology

- 316 **PRINCIPLES OF PALEONTOLOGY (5)**
Prerequisite: Geol 212. Life on the earth as revealed by its inhabitants, past and present.
- 317 **STRUCTURAL GEOLOGY (4)**
Prerequisites: Geol 211, 212; Math 105 and Physics 131 recommended. Description, classification, and interpretation of earth structures; laboratory solution of structural problems by use of geologic maps.
- 319 **ECONOMIC GEOLOGY — METALLIC MINERALS (4)**
Prerequisite: Geol 306 or 311. Metallic minerals and ore deposits, their economics, genesis and occurrence. To be offered on alternate years with Geol 320.
- 320 **ECONOMIC GEOLOGY — NONMETALLIC DEPOSITS (3)**
Prerequisite: Geol 306 or 311. Nonmetallic minerals and ore deposits; their economics, genesis and occurrence. To be offered on alternate years with Geol 319.
- 340 **GEOLOGICAL OCEANOGRAPHY (3)**
Prerequisites: Geol 211, Chem 101 or 121 or equivalent. Nature and origin of major structural features within the ocean basins and distribution of recent marine sediments.
- 352 **INTRODUCTION TO GEOPHYSICS (4)**
Prerequisites: Geol 211; Physics 231 or 131 and Math 122 or 220. Basic elements of geomagnetism, seismology, gravity, and heat flow with reference to the internal structure of the earth.
- 360 **GEOLOGY OF FOSSIL FUELS (4)**
Prerequisite: Geol 212. Origin and accumulation of fossil fuels; methods of locating fossil fuels resources.
- 384 **EARTH SCIENCE FOR THE ELEMENTARY SCHOOL (3)**
Prerequisites: Geol 101, Sci Ed 380. Concepts, experiences, and materials from the earth sciences adaptable to the elementary school with emphasis on intermediate grades. (Also listed as Sci Ed 384.)
- 390 **EARTH SCIENCE FOR THE SECONDARY SCHOOL (3)**
Prerequisites: Geol 211, 212, 306 or 311. Development of methods and materials for teaching earth science, including use of ESCP materials, adaptable to the secondary school.
- 396a,b,c **HONORS TUTORIAL (2-5)**
- 399 **SEMINAR IN GEOLOGICAL LITERATURE (1)**
Prerequisite: 14 credits in geology. Geological reports, papers and discussion.
- 400 **SPECIAL PROJECTS IN GEOLOGY (1-6)**
Prerequisite: permission of department. Special projects under supervision.
- 407 **PETROLOGY (4)**
Prerequisite: Geol 306. Origin, occurrence and classification of igneous, sedimentary and metamorphic rocks; hand specimen identification of rocks. Not open to those with credit in Geol 420.
- 410 **FIELD GEOLOGY (3-5)**
Prerequisites: 13 credits in geology and permission of department, Geol 317 or concurrent enrollment. Methods of geological field investigations; use of field instruments, and making of geologic maps; supervised geologic investigation of a local area.
- 411 **GEOLOGY OF ALPINE AREAS (5)**
Prerequisite: Geol 211 or equivalent; must be taken concurrently with Biol 453a as part of the Alpine Institute. The geology of alpine areas in the Pacific Northwest. (Summer only, as part of the Alpine Institute.)
- 412 **FIELD GEOLOGY FOR TEACHERS (2-5)**
Prerequisite: Geol 211. The geology of Northwest Washington as observed in the field. Summer only.
- 414 **GEOLOGY OF WASHINGTON (3-5)**
Prerequisite: Geol 101 or 211. The significant geologic features of Washington State; field studies.
- 416 **STRATIGRAPHY AND SEDIMENTATION (4)**
Prerequisite: Geol 316. Analysis of transportation, deposition and consolidation of sediments; physical and biological characteristics of stratified rock sequences; principles of correlation, determination of geologic age and facies relationships.
- 418 **OPTICAL MINERALOGY (4)**
Prerequisite: Geol 306. Optical phenomena as related to mineralogy and identification of minerals from optical properties with the use of the polarizing microscope.
- 420 **PETROGRAPHY AND PETROLOGY (5)**
Prerequisites: Geol 352 and 418. Origin, occurrence and classification of igneous, sedimentary and metamorphic rocks; hand specimen and thin section identification of minerals.
- 423 **IGNEOUS PETROGRAPHY AND PETROLOGY (5)**
Prerequisite: Geol 420. Origin, occurrence and classification of igneous rocks and minerals and use of thin sections in identifying igneous minerals.
- 424 **SEDIMENTARY PETROGRAPHY AND PETROLOGY (5)**
Prerequisite: Geol 420. Origin, occurrence and classification of sedimentary rocks and minerals, and use of thin sections in identifying sedimentary minerals. Offered on alternate years.
- 425 **METAMORPHIC PETROGRAPHY AND PETROLOGY (5)**
Prerequisite: Geol 420. Origin, occurrence and classification of metamorphic rocks and minerals and use of thin sections in identifying metamorphic minerals.
- 426 **MICROPALAEONTOLOGY (4)**
Prerequisite: Geol 316. Structure, phylogeny and geological distribution of micro-fossils with emphasis on evolution, paleoecological significance, and stratigraphic application. To be offered on alternate years with Geol 436.
- 430 **MAP AND AERIAL PHOTOGRAPH INTERPRETATION (3)**
Prerequisite: Geol 310. Identification, interpretation of geologic features using topographic maps and aerial photos. Offered on alternate years.
- 436 **PALEOECOLOGY (4)**
Prerequisite: Geol 316. Interpretation of fossil organisms from skeletal morphology and associated features; reconstruction of marine ecosystem relations from the study of assemblages of fossils. To be offered on alternate years with Geol 426.
- 440 **GLACIAL GEOLOGY (4)**
Prerequisite: Geol 310. Processes and phenomena of modern and ancient glaciers; effects of Pleistocene glaciations.
- 444 **X-RAY DIFFRACTION (2)**
Prerequisites: Geol 306, Chem 122, and permission of department. Basic analytical techniques with x-ray equipment.
- 446 **CLAY MINERALOGY (4)**
Prerequisite: Geol 444. Classification, identification, structure and genesis of clay minerals.
- 453 **GEOTECTONICS (4)**
Prerequisite: Geol 352. Crust-mantle interactions, isostasy, continental drift, sea floor spreading, theories of mountain building.

- 454 **APPLIED GEOPHYSICS (4)**
Prerequisite: Geol 352. Field and laboratory exercises in seismic refraction and reflection, electrical resistivity, gravity and magnetics.
- 455 **PALEOMAGNETISM AND ROCK MAGNETISM (5)**
Prerequisite: Geol 352. Origin and interpretation of natural magnetism of rocks; origin of geomagnetic field; application to problems in petrology, structural geology and geodynamics.
- 460 **GEOLOGIC PHASE EQUILIBRIA (3)**
Prerequisites: Math 122 or 220, Chem 122, 123, Geol 306. Application of classical thermodynamics to interpretation of geologic phase equilibria.
- 461 **ANALYTICAL GEOCHEMISTRY (2)**
Prerequisites: Geol 306, Chem 122, 123. Techniques of chemical analysis of geological materials. Use of atomic absorption, x-ray fluorescence and radiocarbon equipment.
- 496a,b,c **HONORS TUTORIAL (2-5 ea)**
- 500 **SPECIAL PROJECTS IN GEOLOGY (1-6)**
Prerequisite: permission of instructor. Special projects under supervision.
- 507 **COASTAL GEOLOGY (4)**
Prerequisite: Geol 310 or 340. Coastal processes and morphology; waves, tides and currents; sea-level changes, coastal sedimentation; research methods.
- 510 **FIELD PROBLEM (2-5)**
Field mapping problem and report in geology.
- 511 **ADVANCED STUDIES IN PHYSICAL GEOLOGY (3)**
Prerequisite: Geol 420 or permission of department. Independent or class study of recent advances in physical geology.
- 512 **ADVANCED STUDIES IN HISTORICAL GEOLOGY (3)**
Prerequisite: Geol 316 or permission of department. Independent or class study of recent advances in historical geology.
- 513 **GEOCHEMISTRY OF SOLIDS (3)**
Prerequisite: Geol 306. Internal structure of crystals.
- 514 **FLUVIAL GEOMORPHOLOGY (3)**
Prerequisite: Geol 310. Stream processes, origin and evolution of fluvial features. Offered on alternate years.
- 516 **PROBLEMS OF BIOSTRATIGRAPHY (3)**
Prerequisite: Geol 316. Advanced work in the biostratigraphy of invertebrates, vertebrates, microfossils or plant fossils.
- 519 **GENESIS OF ORE DEPOSITS (5)**
Investigation of the composition, origin, transportation and deposition of ore deposits; field and laboratory problems.
- 523 **IGNEOUS AND METAMORPHIC PETROLOGY AND GEOCHEMISTRY (5)**
Prerequisite: Geol 423 or 425. Petrogenesis of igneous and metamorphic rocks and minerals.
- 524 **SEDIMENTARY PETROLOGY AND GEOCHEMISTRY (3)**
Prerequisite: Geol 420. Application of chemical principles to the study and interpretation of sedimentary rocks. Petrogenesis of sedimentary rocks.
- 531 **SPECIAL TOPICS IN GEOLOGY (2-5)**
Prerequisite: permission of instructor.
- 546 **GEOLOGY OF CLAYS (3)**
Prerequisite: Geol 444. Occurrence, distribution and genesis of clays; including weathering and soils, diagenesis and hydrothermal alteration.
- 522a,b **ADVANCED STUDIES IN GEOPHYSICS (4)**
Prerequisite: Geol 453 or 454, or permission of instructor.
- 690 **THESIS (May be registered for in units of 3)**
Independent research.





HISTORY

College of Arts and Sciences

Without a 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."

HISTORY FACULTY

- ROLAND L. DE LORME** (1966) Chairman.
Associate Professor. AB, University of Puget Sound; MA, University of Pennsylvania; PhD, University of Colorado.
- BERNARD L. BOYLAN** (1956) Professor. BA, MA, University of Washington; PhD, University of Missouri.
- WILLIAM A. BULTMANN** (1965) Professor. AB, PhD, University of California, Los Angeles.
- LeROY JOSEPH DRESBECK** (1969) Associate Professor. BS, Loyola University, Los Angeles; PhD, University of California, Los Angeles.
- DONALD D. EKLUND** (1968) Associate Professor. BA, University of New Mexico; MA, Colorado State College; PhD, University of Colorado.
- LEONARD M. HELFGOTT** (1970) Assistant Professor. BA, MA, PhD, University of Maryland.

- HARLEY E. HILLER (1957) Professor. BA, Westmar College; MA, PhD, University of Minnesota.
- JAMES H. HITCHMAN (1966) Professor. BA, Willamette University; MA, PhD, University of California, Berkeley.
- THOMAS C. R. HORN (1964) Assistant Professor. BA, University of Pittsburgh; MA, PhD, University of California, Berkeley.
- HARRY D. JACKSON (1967) Associate Professor. BE, Wisconsin State University, Whitewater; MA, PhD, The University of Iowa.
- EDWARD H. KAPLAN (1968) Associate Professor. BS, Georgetown University; MA, PhD, The University of Iowa.
- GEORGE ERIC MARIZ (1970) Assistant Professor. BA, MA, PhD, University of Missouri.
- AUGUST RADKE (1953) Professor. BA, MA, PhD, University of Washington.
- HARRY R. RITTER (1969) Associate Professor. BA, University of Arizona; MA, PhD, University of Virginia.
- ALFRED L. ROE (1962) Associate Professor. BA, St. Olaf College; MA, PhD, University of Minnesota.
- PAUL L. ROLEY (1967) Associate Professor. BA, Illinois College; MA, Northwestern University; PhD, University of Illinois.
- CARL U. SCHULER (1959) Associate Professor. BS, MA, PhD, University of Wisconsin.
- HENRY G. SCHWARZ (1969) Professor of Political Science and History. BA, MA, PhD, University of Wisconsin.
- LESLIE J. THOMAS (1962) Associate Professor. BA, St. Olaf College; MS, PhD, University of Wisconsin.
- LOUIS W. TRUSCHEL (1970) Associate Professor. Pacific Lutheran University; MA, PhD, Northwestern University.

BACHELOR OF ARTS IN EDUCATION

The following statements refer to the junior and senior high school major and the junior and senior high school concentrations:

The department recommends that students take its offerings in the General College Requirements program, up to 12 credits of which may be applied toward a major or minor in history. (See General College Requirements in the College of Arts and Sciences section.)

At least one-half the total credits taken in fulfillment of the following programs must be in upper-division courses.

A minimum grade point average in history of 2.5 is required for graduation and certification for teaching competence.

Major Junior and Senior High School 60 credits

History credits should be distributed under advisement as follows:

- United States History 3 courses
- European History 2 courses
- East and South Asia 2 courses
- Africa and Middle East
- Western Hemisphere (outside U.S.)

- History 301, 391, 401 4 courses
- Social Studies Education 426
- Electives under advisement

Teaching competence will be certified in history.

History - Social Studies Concentration

See Interdepartmental Programs for description of the history - social studies concentration as an alternative teacher preparation major.

Major Elementary 45 credits

- History 103, 104
- Two courses from History 425 through History 448
- One course from History 410 through History 420
- Electives under advisement

A minimum grade point average in history of 2.5 is required for graduation and certification of teaching competence. Competence will be certified in history.

Minor 25 credits

- History 103, 104
- Electives, including one upper division course, under advisement

Area Studies Minor

Minor programs are available in the following fields:

- Canadian and Canadian-American Studies
- East Asian Studies
- Latin American Studies

Courses taken for credit in these programs may not be counted toward the major. See Interdepartmental Programs for details.

Extended Minor 35 credits

(Alternate minor for teaching competence recommendation)

Credits should be distributed under advisement as follows:

- United States History 3 courses
- European History 2 courses
- History 391
- Electives under advisement

A minimum grade point average in history of 2.5 is required for graduation and certification of teaching competence.

Extended Minor 33-35 credits

For English majors desiring a combined recom-

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mentation appropriate for junior high or middle school.

- History 103, 104
- One Modern European course from History 425 through History 448
- One course from History 270, 280, 385
- One upper division U.S. history course
- 10 credits in electives under departmental advisement

A minimum grade point average in history of 2.5 is required for graduation and certification of teaching competence in history.

BACHELOR OF ARTS

Major 60 credits

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.)

Credits to be distributed as follows:

- Four courses, including History 301, in one of the above fields
- Three courses in a second field
- Two courses in a third field
- History 401 (3 credits)
- Electives under advisement

The department recommends that majors take the maximum permissible number of history courses in the General College Requirements program. Up to 12 credits of these may be applied toward a major or minor in history. (See General College Requirements in the College of Arts and Sciences section.)

At least one-half the total credits taken in fulfillment of the following programs must be in upper-division courses.

It is strongly recommended that majors who elect a four-course history concentration in a field where languages other than English predominate take enough language study to become proficient in an appropriate foreign language. Students planning on graduate study in history are cautioned that many graduate schools require foreign language proficiency for admission. Possession of such proficiency is a requirement for departmental honors at graduation for those who elect a four-course history concentration in a field where English is not predominant.

A minimum grade point average in history of 2.5 is required for graduation.

Minor 25 credits

For purposes of 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.)

Credits should be distributed as follows:

- Three courses in one of the above fields
- Two courses in a second field
- Electives under advisement

A minimum grade point average in history of 2.5 is required for graduation.

Minor in Foreign Cultures 25 credits

The History Department offers a minor in foreign cultures for foreign language majors and other interested students. Credits to be distributed as follows:

- Two background courses in modern European history (425, 426, 427, 428, 429)
- Two courses in one of the following areas: France and the French-speaking world (377, 386, 440, 441); Germany (430, 431); Latin America (271, 273, 473); Russia (432, 433, 434)
- Electives under advisement

Area Studies Minor

Minor programs are available in the following fields:

- Canadian and Canadian-American Studies
- East Asian Studies
- Latin American Studies

Courses taken for credit in these programs may not be counted toward the major. See Interdepartmental Programs for details.

DEPARTMENTAL HONORS

A history major may petition for entrance into the History Department Honors Program after completion of 25 credits in history with a GPA of 3.5 or above, and must thereafter maintain at least a 3.5 GPA in history courses to remain a member in good standing of the program.

In addition to fulfilling successfully all regular requirements in either the Bachelor of Arts or Bachelor of Arts in Education programs (including History 301 and 401), an honors student must (a) complete one of the following courses as part of his or her major: History 493, 494, or 495; and (b)

complete a departmental honors essay through registration in History 402 by the winter quarter of his or her senior year. This honors essay may also count as the senior honors thesis for those doing general college honors. It should be treated as an extension and deepening of the essay written in History 401 and should be written under the direction of the history faculty member who supervised the student's History 401 essay. Each essay must be approved by a committee of four faculty members, one of whom must be the departmental honors adviser and another of whom must be the student's 401-402 supervisor. The non-mandated members of the committee are to be nominated by the student, and one of them may be from another department than history.

GRADUATE STUDY

For concentrations in history leading to the Master of Education or Master of Arts degree and for information concerning the archival training program, see *Graduate Bulletin*.

COURSES IN HISTORY

- 103, 104 INTRODUCTION TO AMERICAN CIVILIZATION (5 ea)
 103 American History to 1865
 From the European background to the end of the Civil War.
 104 American History Since 1865
 From the end of the Civil War to the present.
- 105, 106, 107 INTRODUCTION TO WESTERN CIVILIZATION (5 ea)
 Not open to those who have completed or intend to take General Studies 121, 122, 123. Need not be taken in sequence. Human development in the Western world from earliest times to the present; emphasis upon ideas, institutions, forces and movements shaping contemporary life.
 105 Prehistory to 1000 AD. The political, social and cultural history of occidental man from prehistory to the early Middle Ages.
 106 1000 to 1715. The course of Western Civilization from the Middle Ages to the death of Louis XIV.
 107 1715 to Present. Western Civilization from the Enlightenment to the global age.
- 110 HISTORY OF TECHNOLOGY AND SCIENCE (5)
 A study of the influence of innovations and ideas in technology and science upon Western society. An overview of the successive paradigms established by technological and scientific developments and how changing ideas in these fields affected intellectual, social, religious and economic life.
- 199 INTRODUCTION TO THE STUDY OF HISTORY (3)
 A survey of some of the basic problems of historical writing, research and interpretation; an investigation of the relationship of history to the humanities and social sciences. Designed for students with a general interest in history as well as history majors.
- 216 INTRODUCTION TO THE MIDDLE AGES (5)
 Prerequisite: History 106 or Gen St 122. An overview of the history art, literature and thought of the medieval world which became the basis of European civilization. Topics will include a discussion of feudalism, manorialism, the growth of the nation state and of cities, vernacular literature, Romanesque and Gothic art, how medieval people thought and how such changes can be seen in the daily activities of medieval men and women.
- 233 SURVEY OF MODERN RUSSIAN HISTORY AND CULTURE (5)
 Elements of Russian history and culture from the time of Peter the Great (1689) to the present, with particular emphasis on the autocratic and revolutionary traditions in Russian history.
- 267 THE HISTORY OF CHRISTIANITY (5)
 The development of Christian belief and institutions from their inception until the twentieth century.
- 271 INTRODUCTION TO LATIN AMERICAN CIVILIZATION (5)
 A survey of various themes such as Hispanidad, Indianismo, the Church, the peasant, urbanism, the army, which together make up the Latin American experience.
- 273 LATIN AMERICA (5)
 From the period of early Spanish and Portuguese colonization to the present.
- 277 CANADA (5)
 Canadian history from the period of French colonization to the present.
- 280 INTRODUCTION TO EAST ASIAN CIVILIZATION (5)
 The origins and evolution of civilization in East Asia to the present.
- 285 INTRODUCTION TO AFRICAN CIVILIZATIONS (5)
 An introduction to the history of Africa, with emphasis on the development of African societies and civilizations from antiquity to modern times.
- 287 INTRODUCTION TO ISLAMIC CIVILIZATION (5)
 This course will aim at introducing the student to the religious and cultural aspects of Middle Eastern society, and will also aim at introducing some of the major conceptual problems in dealing with a non-western society. The course will survey the development of Islam as a body of religious thought and practice and will also examine the major cultural movements in the Middle East. The course will be thematic in approach and will only be chronological when necessary.
- 301 HISTORY COLLOQUIUM (3)
 Prerequisite: appropriate background courses in topic of colloquium. Introduction to historical methods and concentrated study on topics of special interest in small discussion groups culminating in a bibliographical essay. Since it is expected that History 301 will serve as the starting point for the 401 research paper, the student will normally have the same instructor for both courses.
- 316 SOCIETY AND ECONOMY IN PRE-INDUSTRIAL EUROPE (5)
 Prerequisite: History 106 or Gen St 122. An analysis of the economic and social changes in Europe between 800 and 1750. Topics include a discussion of feudalism, manorialism, the growth of cities and commerce, the rise of the nuclear family, marriage patterns, the role of women and children, and the growth of literacy.

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- 317 SOCIETY AND ECONOMY IN INDUSTRIAL EUROPE, 1750 TO THE PRESENT (5)
Prerequisite: History 107 or Gen St 123. A survey of demographic, social and economic changes in Europe since the mid-eighteenth century. Topics will include discussions of population increases and shifts, changes in family structure, urbanization, the rise and evolution of modern industry, capital formation, the development of modern banking, and social-intellectual changes associated with these phenomena.
- 327 SELECTED STUDIES IN THE HISTORY OF CHRISTIANITY (5)
Prerequisite: History 267. Topics include the formation of the early church, its structure, church-state relationships, the rise of heresy and dissent, the monastic movement, changes in spirituality, social ideas and philosophy of the ministry.
- 336 COMPARATIVE IMPERIALISMS: SELECT CASE STUDIES (5)
An examination of several imperial powers, their controls and methods, their attitudes to race questions, their influence on the colonial peoples and economies.
- 337 BRITISH IMPERIALISM: FROM TUDOR TIMES TO INDIAN INDEPENDENCE (5)
The growth of British interests overseas; Britain and the American Revolution; convicts, traders and settlers; abolition of the slave trade; race relations in the 19th century empire; free trade and "anti-imperialism;" the Boer War, the emergence of the modern Commonwealth; the liquidation of the British Empire.
- 343 TECHNOLOGY AND SOCIETY IN EARLY EUROPEAN HISTORY (5)
Man's efforts to control his environment; the impact of technological change from the fall of Rome to the Industrial Revolution.
- 347 EUROPEAN INTELLECTUAL HISTORY (5)
Development of the European mind from the seventeenth century to the present.
- 350 AMERICAN ECONOMIC HISTORY (5)
American economic development from colonial times to the present, with particular emphasis upon later periods.
- 361 BLACK HISTORY IN THE AMERICAS: THE SLAVERY ERA (5)
Prerequisite: an introductory level course to African, American or Latin American history. Africans in bondage in the Americas; African heritage of blacks in the Americas, slavery in Africa and the Americas, with emphasis on the United States, the Caribbean and Brazil.
- 362 BLACK HISTORY IN THE AMERICAS SINCE EMANCIPATION (5)
Prerequisite: History 361, 454, 467 or an introductory level course in American or Latin American history. The culture and achievements of blacks in the Americas since emancipation. Emphasis on black history in the United States since 1865, with comparisons to blacks in the Caribbean and Brazil since emancipation.
- 365 GREAT PERSONALITIES IN AMERICAN HISTORY (5)
Biographical approach based on evaluation of careers of typical leaders in public affairs, the arts and ideas.
- 366 AMERICAN SOCIETY AND THOUGHT: ORIGINS, 1620-1800 (5)
Social and intellectual development during the colonial and early national periods.
- 367 AMERICAN SOCIETY AND THOUGHT: 1800-1900 (5)
Transcendentalism, Romanticism, Slavery, the Utopias; intellectual impact of the Civil War. Social Darwinism as trends in American history.
- 368 AMERICAN SOCIETY AND THOUGHT: THE TWENTIETH CENTURY (5)
Intellectual developments in twentieth century America.
- 371 HISTORY OF AMERICAN TECHNOLOGY (5)
Major technological and scientific developments in America; influence upon rise of the United States as a world power.
- 375 THE INDIAN IN AMERICAN HISTORY (5)
Events and persons critical to history of North American Indians; review of interpretations of Indian cultures and history.
- 385 AFRICA TO 1885 (5)
Development of African societies and states up to the European partition.
- 386 AFRICA SINCE 1885 (5)
History of Africa during and after colonial rule. Emphasis is on African reactions to European rule, nationalist movements and the problems of independence.
- 387 HISTORY OF THE JEWS (5)
Prerequisite: one of the following—History 105, 106, 107, 287, or Gen St 121, 122, 123, or any upper-division European or Middle Eastern history course. 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.
- 390 TOPICS IN HISTORY (3-5)
Prerequisite: junior status. Specialized topics dealing with history as a social science discipline. The subject of each individual class and its prerequisite will be announced in the class schedule. Repeatable to 10 credits.
- 391 HISTORY AND GOVERNMENT OF WASHINGTON (3)
General history of the Pacific Northwest, state development, samples of local history, and state and local government. Required for certification of elementary teachers and secondary school social studies teachers.
- 394 GENEALOGY AND FAMILY HISTORY (3)
Prerequisite: upper-division standing. A discussion of the methods and research aids in composing a genealogy and family history. Also discussed will be the importance of this research to prosopographical and historical studies in general.
- 398a INTRODUCTION TO HISTORICAL METHODS IN GOVERNMENT AND BUSINESS ARCHIVES AND RECORDS (3)
Prerequisite: 10 credits in history. A survey of historical techniques utilized in government and business archives and records centers, and of the development of concepts of archival administration.
- 398b HISTORICAL METHODS IN BUSINESS ARCHIVES AND RECORDS MANAGEMENT: FIELD WORK (3)
Prerequisite: 10 credits in history. Supervised field work in government and business archives, with emphasis upon the application of methods of historical organization, preservation, and analysis of records.
- 400 SPECIAL PROBLEMS (1-5)
Prerequisite: permission of department.

- 401 HISTORICAL RESEARCH (1-3)
Prerequisite: History 301. The research and writing of a formal paper on a topic developed in History 301. The student will normally have the same instructor for both courses.
- 402 HISTORY DEPARTMENTAL HONORS ESSAY (3)
Prerequisite: open to history honors students only.
- 405 PROBLEMS IN MODERN EUROPEAN HISTORY, 1815 TO THE PRESENT (5)
Prerequisite: senior standing. Designed to give seniors a coherent overview of the course of European history since 1815 through an examination of a number of key problems.
- 407 HISTORY OF THE FIRST WORLD WAR (3)
Prerequisite: upper-division standing. Analysis of the First World War with emphasis on the strategic and tactical considerations that governed its course.
- 408 HISTORY OF THE SECOND WORLD WAR (3)
Analysis of the Second World War with emphasis on the strategic and tactical considerations that governed its course.
- 410 ANCIENT NEAR EAST (5)
Prerequisite: History 105 or Gen St 121. Genesis of Western civilization; our cultural debt to the ancient Mesopotamians, Egyptians, Hittites, Phoenicians, Aramacans, Hebrews, Assyrians, and Persians.
- 411 GREECE TO 404 B.C. (5)
Prerequisite: History 105 or Gen St 121; open to sophomores with permission of instructor. The Greek world from Minoan-Mycenaean period to end of Peloponnesian War.
- 412 GREECE: 404 TO 220 B.C. (3)
Prerequisite: History 105 or Gen St 121; open to sophomores with permission of instructor. Greece from the end of the Peloponnesian War to the intervention of Rome.
- 413 THE ROMAN REPUBLIC (5)
Prerequisite: History 105 or Gen St 121; open to sophomores with permission of instructor. From the foundation of Rome (753 B.C.) to the end of the Republic.
- 414 THE ROMAN EMPIRE (3)
Prerequisite: History 105 or Gen St 121; open to sophomores with permission of instructor. From the foundation of the Roman Empire to the death of Theodosius (395 A.D.) and the division of the Empire.
- 415 THE BYZANTINE EMPIRE (5)
Prerequisite: History 105 or Gen St 121; open to sophomores with permission of instructor. From the dedication of Constantinople to its fall (330-1453).
- 416a,b,c EUROPE IN THE MIDDLE AGES (5 ea)
Political, social, religious and intellectual changes in medieval civilization.
416a The Patristic Age, 284-768
Impact of Christianity and the barbarian invasions upon European society.
416b Central Middle Ages, 768-1200
Change from the feudal world to the nation-state.
416c Transformation of Europe, 1200-1450
Elements of the High Middle Ages and discussion of its collapse.
- 418 MEDIEVAL ENGLAND (5)
Political, social and constitutional history of England from the Roman conquest to War of the Roses.
- 419 CONSTITUTIONAL, LEGAL AND ADMINISTRATIVE HISTORY OF ENGLAND (3)
A study of the institutions, social and political forces, and ideas which contributed to the development of the British Constitution, especially during the formative period before the Glorious Revolution.
- 420 THE RENAISSANCE AND THE REFORMATION (5)
Prerequisite: History 106 or Gen St 121; open to sophomores with permission of instructor. Transition from the Medieval to the Modern: Western Europe from the eve of the Hundred Years War to the Treaty of Westphalia (1337-1648).
- 425 MODERN EUROPE, 1648-1789 (5)
Development of the modern state system and the conflict between monarchs and the growing middle class.
- 426 MODERN EUROPE, 1789-1850 (5)
Political, economic, social, and diplomatic developments between the French Revolution and mid-19th century.
- 427 MODERN EUROPE, 1850-1914 (5)
From the age of "Realpolitik" to First World War.
- 428 MODERN EUROPE, 1914-1945 (5)
Results of World War I, attempts at world organization, the Succession States of Central Europe, World War II.
- 429 EUROPE SINCE 1945 (5)
Major political, economic, and social developments; origin and operation of the cold war and attempts of Europe to adjust to the changing status of the continent.
- 430 GERMANY BEFORE 1815 (5)
German development from the late Middle Ages to the Napoleonic era.
- 431 GERMANY SINCE 1815 (5)
Since the Congress of Vienna; national unification, the German state system; role in international affairs.
- 432 RUSSIA, ORIGINS AND DEVELOPMENT TO 1917 (5)
An introduction to the history of Russia from its beginnings until the fall of the Russian monarchy in 1917 with the major emphasis upon social and intellectual trends and upon the revolutionary movement in the 19th century. Not open to students who have already taken History 433.
- 433 ROOTS OF REVOLUTION: RUSSIA, 1801-1917 (3)
A history of Russia in the 19th century with particular emphasis upon social and intellectual trends and upon the rise of the revolutionary movement. Not open to students who have taken History 432.
- 434 THE RUSSIAN REVOLUTIONS AND THE SOVIET REGIME (5)
An examination of the Bolshevik experience, with particular emphasis upon ideology and party history. Course addresses itself particularly to the question of why the revolution went wrong.
- 436 ENGLAND, 1485-1688 (5)
Political, social, economic, and constitutional history of England from the end of the Wars of the Roses to the Glorious Revolution.
- 437 ENGLAND, 1688-1832 (5)
Political, social, economic and diplomatic history of England from the Glorious Revolution to the Reform Bill of 1832; constitutional developments of the period.

History

- 438 ENGLAND, 1832 TO THE PRESENT (5)
Political, social, economic and diplomatic history of England from the Reform Bill of 1832 to today; development of parliamentary institutions; impact of the World Wars of the twentieth century on British politics, economics and society.
- 440 FRANCE, 1643-1815 (5)
Political, social, and economic development from Louis XIV through Napoleon.
- 441 FRANCE SINCE 1815 (5)
Political, social, and economic development of France since Napoleon.
- 445a CURRENT TRENDS IN THE TEACHING OF HISTORY (3)
Strategies and materials for teaching senior and junior high school history. The course emphasizes "new" strategies and support materials designed to maximize learning and student involvement in the teaching-learning processes.
- 448 EAST CENTRAL EUROPE TO 1945 (5)
The political, social and intellectual history of Poland, the Danube Basin, and the Balkan Peninsula to the Second World War. Emphasis on the period since 1800 and the rise of nationalism.
- 450 AMERICAN COLONIAL HISTORY (5)
The founding of the English colonies in North America, and the development of their forms of provincial and local government, economic life, and religious and social institutions to the middle of the eighteenth century; problems of imperial administration; and internal partisan conflicts over political, economic and religious issues.
- 451 THE AMERICAN REVOLUTION AND CONFEDERATION PERIOD (5)
Colonial reaction to British imperial policies (1763-1776) in the context of internal partisan controversies over political, economic, sectional and religious issues; the military and diplomatic aspects of the Revolutionary War; the political and economic problems during the Articles of Confederation period that led to the demand for constitutional reform in the Convention of 1787.
- 452 THE EARLY NATIONAL PERIOD: FEDERALISTS AND JEFFERSONIANS (5)
The problems of the Confederation period, the major debates and compromises in the Constitutional Convention of 1787, and the partisan political conflicts over constitutional interpretations, economic issues, and foreign policy leading to the origin of the first party system, from the establishment of the federal government to the War of 1812.
- 453 THE AGE OF JACKSON (5)
The struggle between republican and democratic forces in a milieu of social, technological, economic, international and religious flux, 1812-1848.
- 454 THE CIVIL WAR AND RECONSTRUCTION (5)
Development of rival nationalisms; problems of war in North and South; efforts toward reunion; new problem in 1877.
- 455 THE UNITED STATES, 1877-1916 (5)
Social, economic, and political development of the American nation after Reconstruction.
- 458 THE UNITED STATES: 1917-1941 (5)
Political, social and economic trends from the beginning of World War I to World War II.
- 459 THE UNITED STATES SINCE 1941 (5)
Internal and international consequences of the rise of the United States as a world power since World War II.
- 461 DIPLOMATIC HISTORY OF THE UNITED STATES TO 1945 (5)
Relationship of the United States to world politics from colonial times to 1945.
- 462 DIPLOMATIC HISTORY OF THE U.S. SINCE 1945 (3)
A historical analysis of the United States in its relations to other powers in the post World War II world.
- 463 AMERICAN CONSTITUTIONAL HISTORY (5)
Prerequisite: History 103 or equivalent. The constitutional development of the United States from the colonial period to the present, with emphasis upon the major debates and compromises in the Constitutional Convention of 1787, and the historical role of the Supreme Court in shaping social policies via the power of judicial review in the context of partisan political controversy over crucial social issues.
- 465 THE AMERICAN WEST (5)
Westward movement from the Allegheny Mountains to the Pacific Ocean, with special emphasis upon the Far West.
- 466 THE RISE OF THE AMERICAN CITY (5)
The impact of urbanization on American political, social, and economic history from the late 19th century to the present.
- 467 REFORM AND RADICALISM IN TWENTIETH CENTURY AMERICA (5)
Origin, leadership, objectives, and impact of major reform and radical movements of the period.
- 468 U.S. AND REGIONAL MARITIME HISTORY (3)
Naval and maritime development of the nation and Pacific Northwest.
- 473 SELECTED MAJOR LATIN AMERICAN STATES IN THE 20TH CENTURY (5)
A contemporary history of major states of current interest.
- 477 MODERN CANADA SINCE 1867 (3)
A survey of Canadian political, social and economic history since Confederation. The problems confronting federalism and Quebec; the emergence of Canada in world affairs.
- 480 CHINA FROM ANTIQUITY TO EARLY T'ANG (5)
Chinese civilization's foundations and the early stages of the imperial system's evolution.
- 481 IMPERIAL CHINA FROM EARLY T'ANG TO MID CH'ING (5)
Political, socio-economic and intellectual trends during the eras of highest development of the imperial system.
- 482 CHINA FROM LATE CH'ING TO THE PRESENT (5)
Dissolution of the imperial system and experimentation with new political ideas and institutions; social and intellectual developments to the present.
- 483 TRADITIONAL JAPAN (5)
Development of Japanese civilization to the Meiji Restoration of 1868.
- 484 MODERN JAPAN (5)
Japan from the Meiji Restoration to the present.
- 487a,b THE MIDDLE EAST (5 ea)
487a The Traditional Middle East
From the 6th Century to 1800
487b Middle East 1800 to the Present

- 488 EAST AFRICA (3)
A regional history of East Africa, the former British territories and the Horn. Major concentration on political, economic and social change since 1850.
- 489 SOUTHERN AFRICA (5)
Political and social developments south of the Zambezi River in recent centuries: pre-colonial states, European settlements, conflicts of the 20th century.
- 491 SURVEY OF COMMUNITY HISTORY (2)
Prerequisite: History 391 or equivalent. A survey of local history, with emphasis upon the interrelated local, regional, and national factors involved in the development of selected communities of the Pacific Northwest.
- 493 HISTORY OF EUROPEAN HISTORIOGRAPHY (4)
Prerequisite: open only to upperclassmen or fifth-year students who are majors or minors in history, with permission of the instructor. A survey of the work of the major historians of the ancient west and modern Europe, their varying styles of writing and differing patterns of interpretation, reflecting changing climates of opinion.
- 494 HISTORY OF AMERICAN HISTORIOGRAPHY (4)
Prerequisite: open only to upperclassmen or fifth-year students who are majors or minors in history, with permission of the instructor. A survey of the major historians of the American past and their varying styles of writing and differing patterns of interpretation, reflecting changing climates of opinion.
- 495 PHILOSOPHICAL PROBLEMS OF HISTORY (5)
Prerequisite: open only to juniors and seniors. Selected readings in European philosophies of history and their contributions to the development of the modern historical consciousness as reflected in modern historical writings and analyses.
- 498 WORKSHOP IN RECORDS MANAGEMENT (2)
General principles of records management and archival programs as applicable to government and business organizations, with emphasis upon such topics as records inventorying, scheduling and retention.
- 500 CONFERENCE (1-5)
Special problems in history.
- 501 HISTORIOGRAPHY I (4)
Selected historiographical studies—Western Europe.
- 502 HISTORIOGRAPHY II (4)
Selected historiographical studies—United States.
- 511-588 GRADUATE SEMINARS (4 ea)
Prerequisite for each of these seminars: completion of undergraduate major in history or permission of department; History 511, 512, 515, 533, 536, 537, 540, 550, 558, 563, 571, 573, 582, 583, 584 require an appropriate upper division course as prerequisite. (See Graduate Bulletin.)
- 511 Ancient Greece
 - 512 Roman History
 - 515 Medieval History
 - 520 Renaissance and Reformation
 - 533 Russian History
 - 536 English History
 - 537 British Empire and Commonwealth
 - 540 Modern European History
 - 550 Colonial American History
 - 554 Civil War and Reconstruction
 - 558 Twentieth Century American History
 - 560 American Economic and Business History
 - 561 American Diplomatic History
 - 563 American Constitutional History
 - 566 American Society and Thought
 - 571 Canada
 - 573 Latin America
 - 581 Imperial China
 - 582 Republican and Communist China
 - 583 Traditional Japan
 - 584 Modern Japan
 - 588 Africa
- 591a,b SEMINAR IN THE PACIFIC NORTHWEST (4)
- 594 SEMINAR ON THE TEACHING OF HISTORY (2)
Develops alternative teaching strategies for application at the community college and college levels.
- 595a,b,c PRACTICUM IN COLLEGE TEACHING (2)
- 596a,b,c PRACTICUM IN COLLEGE TEACHING (4)
- 598a,b,c GRADUATE INTERNSHIP IN MUSEUM AND ARCHIVAL TECHNIQUES (5-10)
Prerequisite: approval of the department and instructor. A work/study program conducted by the history department and the Seattle Federal Records Center, National Archives and Records Service, providing step-by-step training in the handling, storage, preservation and archival usage of documentary and filmed materials.
- 690 RESEARCH AND WRITING SEMINAR: THESIS (4)
Introduction to research, the use of primary source materials, auxiliary sciences, problems of interpretation, textual criticism and the use of bibliographic aides. A knowledge of foreign languages or the use of statistics or computer programming may be required depending upon the topic of research.
- 691 RESEARCH AND WRITING SEMINAR: THESIS (4)
Prerequisite: History 690. Continuation of research begun in History 690.
- 692 RESEARCH AND WRITING SEMINAR: THESIS (4)
Prerequisite: History 691. Emphasis upon the writing of research materials.





HOME ECONOMICS

College of Arts and Sciences

BACHELOR OF ARTS IN EDUCATION

Teacher Education Major

As part of an exciting teaching career in home economics, there is the opportunity to work in a variety of subject areas including consumer education, family living, child development, nutrition, home management, housing and home furnishings, clothing construction and meal management. The home economics teacher is prepared to work with learners at the middle school, secondary and adult levels and can select to teach at the level she enjoys the most. She also assumes a dynamic role in planning field experiences, visiting homes, guiding extended home learnings, sponsoring youth groups, and working with individuals and groups in the community.

The WWSC teacher education program in home

economics is "action-oriented" from beginning to end. Early in the program, the prospective teacher becomes involved in field experiences to observe learners and participates in micro-teaching in actual classrooms as part of her college program. All of the subject-matter areas in home economics include mini-experiences for the student which relate to the teaching experience. In the senior year, teacher education courses include experiences in planning and presenting demonstrations, video presentations, exploring current home economics multi-media teaching aids, planning units for a home economics curriculum. As part of the learning process, the student experiences work with learning packages, individualized learning contracts and other means of individualized instruction. The concepts and experiences are current and relevant. The teacher education preparation is culminated by a student-teaching experience with responsibility for planning and teaching in a secondary home economics program.

Home economics teaching opportunities are at all levels—middle school, high school, adult and vocational education programs, and community colleges. In addition, preparation for home economics teaching opens the door to a variety of other job opportunities such as extension service, home economist in business, and community and governmental services.

Major Concentration:

*Child Development & Family Relationships
(in combination with elementary teaching minor)*

The major emphasis of this program is learning to know the whole child as he interacts with his total environment (family, school, community agencies, etc.). The program involves students with children, the concepts of how children grow and learn, how to design and manage environments that will promote a child's maximal growth and development, and how to work with children as individuals and in groups—important facets of the learning process. In addition to regular classroom learning, the students have an opportunity to participate in a variety of community programs involving children (day care centers, Head Start, nursery schools, etc.). Student teaching experience is done at the elementary level.

This major combines home economics courses with the major concentration of child development/family relationships, elective home economics classes, and a variety of courses with the elementary education minor or major. This major offers flexibility in the selection of elective or alternative choices to meet particular needs of the student.

Opportunities for employment in the field of child development are many and they continue to expand as social and economic changes create new demands for people with this training. Graduates of this curriculum may work in such occupations as teachers in nursery school, day care, Head Start, kindergarten and primary grades; family life educator; curriculum specialist; case worker for welfare and other social service agencies; parenting. With the educational background of this curriculum experience and additional study, students are prepared for administrative positions in child development in college teaching and research.

BACHELOR OF ARTS

Major Concentration:

Family and Community Services

The family and community services concentration is the newest major in the Department of Home

Economics. This major has been created to meet changing societal needs for trained personnel. The program integrates concepts from natural and social sciences as they apply to problems of family and community. The student focuses on the family as a primary socializing and stabilizing agent within a rapidly-changing society. The student learns about individuals and families as they develop and change throughout the life span through the processes of social change and through interpersonal interactions. A knowledge of the structure and function of community agencies is an important concept for the student. The student will work with an advisory faculty committee in planning a program and selecting classes. Choices are available in all the areas of home economics.

At present, graduates may find employment in such occupations as family-community consultant and program developer; family counseling associate; family life educator; day care specialist; youth program specialist; welfare and rehabilitation counselor; mental health team member; school-community consultant and program developer; volunteer aid supervisor; inter-agency coordinator. Many of the employment opportunities for students with a family and community services background are not currently defined as occupations for home economists but social and economic changes are creating increasing demands for persons with such training.

Major Concentration:

Interior Design and Merchandising

This concentration is designed for the student desiring a broadly-based education in home economics which has its focus on bettering the living environment (both physical and aesthetic) for the family. A student selecting this area is concerned with housing for different life stages and economic levels, equipment and home furnishings for the household, the arrangement of space and furniture, storage areas, lighting for comfortable and efficient living and all the aspects of the design.

Spatial, visual and functional problem-solving is encouraged through simulated and actual problems in interior design and housing. Students work with displays, home furnishings problems, meet professionals in the field, take field trips to homes and families as laboratory experiences and case studies, plus field trips to retail and wholesale home furnishings businesses. The current market in housing, single-family and multi-dwelling, and the interior design field are integral facets of study.

Opportunities for campus/community service are available through the Western Design Center. The student has the opportunity to apply design concepts to problem-solving situations that exist with the community or college. Students have

Home Economics

worked with the selection and planning of a Forestry Service Information Center, planning storage units for a home economics laboratory, design of logos and brochures, etc. Work experience in local design studios and retail home furnishings stores are an elective part of the program. Supporting courses outside home economics may be individually planned to meet the student's career objectives.

Some interesting interior design careers available to the student in this program are home lighting consultant, home planning specialist, kitchen planning specialist, interior designer, public housing consultant, architectural assistant, newspaper writer, utility company home economist, consumer consultant, extension specialist, and positions in retailing and merchandising.

Major Concentration:

General Home Economics

The student seeking a Bachelor of Arts degree in general home economics has the greatest flexibility in program planning. A student designs her own program with advisement by a faculty committee. A minimum of courses is required in each of the following five areas of home economics: (1) child development and family relations; (2) home management and family economics; (3) housing, equipment and furnishings; (4) foods and nutrition; and (5) clothing and textiles. Individuals have a choice of concentrating electives in one or two areas to meet a specific goal or selecting courses which develop a general background for a flexible career objective.

In addition to the wide scope of courses in home economics, a student selects supporting courses from other disciplines. These supporting courses may concentrate in one or two areas or be chosen from a broad spectrum of areas. This major promotes a liberated point of view which reinforces Western's emphasis on liberal education. It is the "generalist" who will be prepared to adjust to a rapidly-changing world. This broad scope of home economics education will allow a student to be prepared for new career opportunities.

Job opportunities for graduates with a degree in general home economics are found in government, business and industry. Positions in consumer relations, mass media, and social, health and family services find a general background desirable. Homemaking is a choice of many general home economics majors and this program can be designed to meet a student's own needs.

HOME ECONOMICS FACULTY

DOROTHY E. A. RAMSLAND (1949) Chairman.
Professor, BS, University of Wisconsin; MS, PhD,
Michigan State University.

EVELYN C. KEST (1969) Assistant Professor, BS, MS,
Brigham Young University.
EDITH B. LARRABEE (1957) Assistant Professor, BA,
East Texas State University; MA, Colorado State
College.
JANICE R. PEACH (1964) Assistant Professor, BS, South
Dakota State University; MS, Oklahoma State
University.
JANE E. ROBERTS (1966) Associate Professor, BS, MS,
PhD, University of Wisconsin.

BACHELOR OF ARTS IN EDUCATION

Secondary Vocational Home Economics

Major Concentration 69-71 credits

(Satisfies both major and minor.)

- Home Econ 100, 101, 120, 164, 166, 175
- Home Econ 224, 230, 250, 253, 260, 272
- Home Econ 310, 334, 338, 353, 361, 370, 375
- Home Econ 410, 422, 424, 432, 441, 448, 450 or 452
- Home economics electives: one credit
- Supporting course: Economics 201
- Chemistry 115 is suggested to meet General College Requirements

The vocational certificate is granted upon completing the requirements for the Bachelor of Arts in Education including the above major concentration and supervised teaching in home economics.

All students being certified for vocational certification in home economics must comply with Washington State Administrative Code No. 390-28-010(6) which states: "By September 1, 1973, the preparation for vocational teaching for all persons shall include instruction in safety and industrial hygiene practices."

Minor 25 credits

- Courses selected with faculty advisement

This minor is not designed for home economics teaching. Preliminary consultation is essential before undertaking a minor.

Major: Child Development and Family Relationships 45 credits

Core Requirements: 27-30 credits from the following courses with approval of adviser.

- Home Econ 120
- Home Econ 224, 250
- Home Econ 320; 327 or 427; 417b, 417d; 417f; 420; 421; 422; 423; 424; 426

Home Economics Elective Requirements: 15-18 credits

- Home economics courses selected under faculty advisement

(This major to be combined with elementary teaching minor. See Education Department listing for details.)

Minor: Child Development and Family Relationships 25 credits

- Home economics courses selected under faculty advisement. Preliminary consultation is essential before undertaking a minor.

(This minor to be combined with special education major or early childhood education specialization.)

Teaching Competence

Recommendation for teaching competence in home economics normally requires completion of the major with a grade average of 2.5 or better.

BACHELOR OF ARTS

Major Concentrations 110 credits

70 credits in home economics plus supporting courses from other disciplines.

These concentrations satisfy both a major and a minor.

General Home Economics Concentration

- Required core courses for this concentration: Home Econ 100, 310, 410 (4 credits)
- Selected credits from each area listed below with faculty advisement (9 credits each): child development and family relationships; foods and nutrition; home management and family economics; housing, furnishings, equipment, design; textiles and clothing
- Home economics electives: 21 credits
- Supporting courses: Econ 201 plus 35 credits from disciplines other than home economics

Common core requirements for Family and Community Services and Interior Design and Merchandising concentrations:

- Home Econ 100, 101, 120, 166 or 461, 175, 224, 230, 250, 310, 334, 370, 410 (27-28 credits)

Family & Community Services Concentration

- Common core requirements as shown above (27-28 credits)
- Concentration requirements: 42-43 credits in home economics classes to be planned with faculty advisement to meet student's proposed personal or career objectives
- Supporting courses: Econ 201; Psych 201 and 351; Soc 202 and 340; plus 17 credits selected from disciplines other than home economics

Interior Design & Merchandising Concentration

- Common core requirements as shown above (27-28 credits)
- Concentration requirements: Home Econ 164, 272, 273, 364, 367, 371, 372, 375, 376, 470, 475, 478 (35 credits)
- Home economics electives: 5 credits from the following suggested courses- Home Econ 377, 418, 476, 477
- Supporting courses: 40 credits selected with faculty advisement from disciplines other than home economics. Suggested supporting courses: Econ 201, BA 201 and 301, Acctg 251; Tech 210, 311, 313, 418

Minor 25 credits

- Courses selected with faculty advisement; prior consultation is essential before undertaking a minor

Pre-Professional Programs

A one or two year program is available for students who may wish to transfer. Pre-professional programs may be planned in dietetics, food management, nutrition, fashion merchandising, clothing design, textile science, or other home economics programs unavailable at WWSC.

A one or two year program may be planned to meet special needs for students who desire less than a degree program.

COURSES IN HOME ECONOMICS

- 100 INTRODUCTION TO HOME ECONOMICS (1)
Orientation in the five areas of home economics and a review of the field in terms of history, philosophy, professional opportunities. S/U grading.
- 101 DESIGN ORIENTATION (3)
Not open to students with credit in Art 270. Fundamental art principles and design concepts, emphasizing color, pattern, texture, and space.
- 120 THE PRE-SCHOOL CHILD IN THE FAMILY (3)
Intellectual, physical, social, and emotional development of the child from conception through age five, with emphasis upon the relationship of the child in the family.
- 164 TEXTILES FOR THE CONSUMER (3)
Comparative properties of textile fibers and fabrics. Emphasis on use, care and economics of natural and synthetic textiles.
- 166 CLOTHING DESIGN AND SELECTION (2)
Prerequisites: Home Econ 101 or Art 270 with Home Econ 164 recommended; not open to home economics majors with five credits in Home Econ 260. Selection of clothing from aesthetic and consumer aspects.
- 175 PERSONAL ENVIRONMENTAL DESIGN (2)
Prerequisite: Home Econ 101 for home economics majors. Introduction to furniture, decorative arts, architecture and landscaping for the home.

Home Economics

- 224 MARRIAGE AND FAMILY LIVING (2)
Prerequisite: Gen St 105 or equivalent. Interpersonal relationships in pre-marital and marital interaction.
- 230 DECISION-MAKING IN THE FAMILY (2)
Basic concepts of management and decision-making viewed within the framework of the family as an ecosystem.
- 250 HUMAN NUTRITION (3)
Prerequisites: general college requirement in chemistry and Biol 101 or equivalent. Basic nutrition principles and applications; food habits and nutritive needs of people.
- 253 FOODS (3)
Prerequisites: Home Econ 250; Home Econ 272 recommended. Basic principles of food preparation and selection; laboratory experience and demonstration.
- 260 CLOTHING CONSTRUCTION (3)
Prerequisites: Home Econ 164, 166, Home Econ 101 or Art 270, and permission of department. Basic construction techniques; emphasis on management of resources.
- 272 HOUSEHOLD EQUIPMENT I (3)
Evaluation of household equipment; application to the family's management.
- 273 HOUSEHOLD EQUIPMENT II (2)
Prerequisite: Home Econ 272. Analysis of electrical and non-electrical equipment; energy conservation; laboratory experience, demonstration.
- 300 SPECIAL PROBLEMS IN HOME ECONOMICS (1-5)
(See Home Econ 400.)
- 310 CONCEPTS AND RESEARCH IN HOME ECONOMICS (2)
Prerequisite: Home Econ 100. Concepts, analysis of research purposes and methods in the five areas of home economics. S/U grading.
- 320 THE SCHOOL-AGE CHILD IN THE FAMILY (3)
Prerequisites: Home Econ 120, Gen St 105 or equivalents. Intellectual, physical, social and emotional development of the child (6-18) with emphasis upon relationships of the child in the family.
- 327 FIELD EXPERIENCES IN HOME ECONOMICS (2-5)
Prerequisite: home economics upper-division major; completion of 45 credits in major except child development/family relationships 30 credits in major. Placement must be approved quarter before registration. Opportunity to work with community, business and government organizations and agencies utilizing home economics skills. (S/U grading only.)
- 334 CONSUMER ISSUES (3)
Current consumer issues in the economic world; responsibilities and protections.
- 338 FAMILY FINANCE (3)
Prerequisites: Gen St 105, Econ 201 or Gen St 200. Management of family income and expenditures in the changing family cycle.
- 350 CHILD NUTRITION (3)
Prerequisite: Home Econ 250 and Home Econ 120 and 320 or equivalent. Application of nutrition principles to children, relationship to growth and development; indices of nutritional status.
- 353 FAMILY MEAL MANAGEMENT (3)
Prerequisites: Home Econ 250, 253 and permission of department. Concepts of management applied to meal service for the family.
- 361 CLOTHING ANALYSIS (2)
Prerequisite: Home Econ 260 or equivalent. Limited to home economics education majors. New techniques applied to methods of teaching clothing; special fabrics; principles of fitting.
- 362 FAMILY CLOTHING (2)
Prerequisite: Home Econ 164 or 166 recommended. Selection of family clothing to meet changing life cycle needs. Normally offered alternate years or summers.
- 364 TEXTILES FOR HOME FURNISHINGS (3)
Prerequisites: Home Econ 164 and 175 or 375. Decorative and functional textiles for the home, with emphasis on construction, finishes, economics, durability, use and care.
- 365 ADVANCED TEXTILES (3)
Prerequisite: Home Econ 164 or equivalent. Emphasis on special fabrics and finishes, fiber modifications and textile legislation. (Normally offered alternate years or summer.)
- 367 WEAVING DESIGN (3)
Prerequisites: Home Econ 101 and 164. Weaving taught through the use of a variety of looms and materials. (Normally offered alternate years or summer.)
- 370 HOUSING I (3)
Prerequisites: Home Econ 101 or Art 270; Home Econ 175; permission of department. Housing for the family; historical, aesthetic and cultural implications.
- 371 HOUSING II (3)
Prerequisites: Home Econ 370; Home Econ 372 recommended. Multiple housing for the family, its planning and design.
- 372 HOUSEHOLD SYSTEMS (3)
Prerequisites: Home Econ 272, 370; Tech 313 recommended. Factors affecting lighting, indoor climate control and waste systems in the home environment.
- 375 HOME FURNISHINGS (3)
Prerequisites: Home Econ 101 or equivalent; Home Econ 164 and 175; permission of department. Home Econ 364 recommended. Laboratory experiences with selection, arrangement, design of home furnishings.
- 376 HISTORY OF FURNITURE AND DECORATIVE ARTS (3)
Prerequisites: Home Econ 375. Development of furniture and decorative arts from ancient to contemporary times.
- 377 PROFESSIONAL WORKROOM EXPERIENCE IN INTERIOR DESIGN (3)
Prerequisites: Home Econ 364 and 375. Supervised experience in professional interior design workrooms for drapery, curtains and shade construction, upholstering and related areas. S/U grading only.
- 400 SPECIAL PROBLEMS IN HOME ECONOMICS (1-5)
Prerequisite: permission of department chairman. Advanced students with a creditable record in home economics may work on a special problem by conference arrangement.
- 410 PROFESSIONAL TRENDS IN HOME ECONOMICS (1)
Prerequisite: Home Econ 310. Current issues, trends, career education. S/U grading.

- 417a **INDIVIDUALIZING HOME ECONOMICS (3)**
For home economics teachers who wish to add any or all of the following components into their learning systems: (1) personalized or individualized program, (2) self instructional, (3) non-graded, (4) ungraded, (5) student directed and/or managed. Students will design a system under which their students operate in any or all of the above components. The system will be designed for their particular program and faculty. (Normally offered alternate years or summer.)
- 417b **HOME ECONOMICS FOR ELEMENTARY SCHOOLS (3)**
Prerequisites: student teaching or teaching experience. The development of home economics concepts and skills for the elementary school curriculum. (Normally offered alternate years or summer.)
- 417c **IN-SERVICE HOME ECONOMICS SUPERVISORY TRAINING FOR SUPERVISION OF STUDENT TEACHERS (3)**
Prerequisite: vocational certification in home economics under State of Washington certification regulations; master teacher with a minimum of two or more years of teaching experience in the State of Washington who has worked as a cooperating teacher with student teachers prior to taking this course. In-service training of master, vocationally certified home economics teachers to prepare them for assuming certain supervisory tasks (in lieu of college supervision) when working with student teachers in home economics.
- 417d **CONTEMPORARY ISSUES IN FAMILY RELATIONSHIPS (3)**
Prerequisite: Home Econ 424 or equivalent. Exploration of contemporary issues in family relationships. (Normally offered alternate years or summer.)
- 417e **CONSUMER EDUCATION FOR HOME ECONOMICS TEACHERS (1-3)**
Prerequisite: student teaching or home economics teaching experience. Comprehensive overview of current consumer issues; exploration of new media and resources; description and evaluation of consumer education courses and/or programs for home economics at the secondary level. Normally offered alternate years or summers.
- 417f **ADMINISTRATION OF PRE-SCHOOL PROGRAMS (2)**
Prerequisites: Home Econ 420 and 422 or equivalent. This workshop will provide additional training for child development specialists, teachers and administrators of nursery schools, day-care centers, etc. (Normally offered alternate years or summer.)
- 418 **DESIGN CENTER RESEARCH PROJECT (1-3)**
Prerequisite: Tech 214 or Home Econ 101. Directed research in design under the auspices of the Western Design Center. (Also listed as Tech 418.)
- 420 **PRESCHOOL EDUCATION (3)**
Prerequisite: Home Econ 120. Curriculum materials for preschool age children; behavior management techniques, classroom organization, teaching strategies. (Also offered as Ed 432.)
- 421 **DEVELOPMENTAL ASPECTS OF ADULTHOOD AND AGING (3)**
Prerequisite: Gen St 105 or equivalent; permission of department. Physical, economic, psychological and social changes in the middle and later years. Emphasis on changes in family relationships, finances, living environment and employment. Personal, social and community resources explored. (Normally offered alternate years or summer.)
- 422 **LABORATORY EXPERIENCE WITH THE PRE-SCHOOL CHILD (3)**
Prerequisites: Home Econ 120 and 420 and permission of department; a tuberculosis test required in compliance with state law. Home Econ 420 excepted for home economics secondary education majors. Observation and participation in preschool laboratory. S/U grading.
- 423 **SEMINAR IN ADVANCED CHILD DEVELOPMENT (3)**
Prerequisites: 5 credits in upper division child development courses and permission of department. Critical analysis of aspects of child development, recent development of theories; supervised individual projects.
- 424 **FAMILY RELATIONSHIPS (3)**
Prerequisite: Home Econ 224 or equivalent. Concepts of the family; current issues, family life education.
- 426 **PARENT-CHILD INTERACTION (3)**
Prerequisites: Home Econ 320 and 424 or equivalent. Emphasizes child-rearing practices, parent effectiveness and training.
- 427 **FIELD EXPERIENCES IN HOME ECONOMICS (2-5)**
Prerequisite: home economics upper-division major; completion of 45 credits in major except child development/family relationships 30 credits in major. Placement must be approved quarter before registration. Opportunity to work with community, business and government organizations and agencies utilizing home economics skills. (S/U grading only.)
- 430 **HOME MANAGEMENT (2)**
Prerequisites: Home Econ 230, senior standing and permission of department. Philosophy and theory of management and decision making in the family from an interdisciplinary viewpoint. (Normally offered alternate years or summer.)
- 432 **HOME MANAGEMENT LABORATORY (3)**
Prerequisites: Gen St 105, Home Econ 353, 230, and permission of department. Application of concepts and principles of home management to group and home living.
- 441 **HOME ECONOMICS VOCATIONAL EDUCATION (5)**
Prerequisites: Psych 371, senior status, and 36 credits in required home economics; to be taken immediately preceding student teaching. Competency-based program designed for entry level of all aspects of secondary vocational home economics teaching; lesson, unit, course planning and department management.
- 442 **CURRICULUM IN HOME ECONOMICS EDUCATION (3)**
Prerequisite: student teaching and/or teaching experience. Functional home economics programs for middle school, senior high and adults. Analysis and synthesis of current concepts emphasizing the planning of courses of study and scope and sequence of programs.
- 443 **ADULT EDUCATION IN HOME ECONOMICS (3)**
Prerequisite: permission of department. Principles of education for adult learners, development of home economics programs for adult education; philosophies, issues and objectives.
- 445 **CURRENT ISSUES AND TEACHING TECHNIQUES (2)**
Prerequisite: home economics teaching experience or student teaching experience. Current issues, concepts, teaching techniques for implementation for home economics subject areas in middle school, junior and senior high schools.

Home Economics

445c CONSUMER EDUCATION INTER-DISCIPLINARY WORKSHOP (3)

Prerequisite: current teaching in secondary schools. A special workshop designed to increase background knowledge in consumer education and develop an interdisciplinary curriculum in preparation for team teaching of consumer education at the secondary level during the following school year. (Summer.)

445d METRICS FOR THE CONSUMER (2)

Consumerism and the effective use of metric units. (Normally offered summers.)

446 RESOURCES FOR TEACHING HOME ECONOMICS (2)

Prerequisite: home economics teaching experience or student teaching experience. Current resources for teaching home economics programs in middle school, junior and senior high schools. Repeatable for credit.

446a Clothing and Textiles

446b Consumer Education

446c Family Life Education

446d Foods and Nutrition

446e Housing/Furnishings/Management

446f General Home Economics

448 EVALUATION IN HOME ECONOMICS (2)

Prerequisite: Psych 371, home economics major or minor. Application of current concepts in evaluation; techniques and non-test devices appropriate to each subject area of home economics.

450 NUTRITION: ASPECTS OF HUMAN GROWTH (5)

Prerequisite: Home Econ 250; Home Econ 350 and 421 and Biol 348 and 349 or equivalent recommended. Nutritional needs through the life cycle; indices of nutritional status. Research studies.

451 FIELD STUDIES IN NUTRITION (2-5)

Prerequisite: Home Econ 450 and permission of department. Supervised field work in human nutrition. S/U grading.

452 SEMINAR IN NUTRITION AND FOODS (3)

Prerequisite: Home Econ 350 or 450. Current issues and problems in foods and nutrition. Survey and application of research studies. (Normally offered in alternate years or summer.)

453 SOCIAL AND CULTURAL ASPECTS OF FOOD (3)

Prerequisites: Home Econ 353; Anth 201. Social and cultural development of people as related to the acceptance and use of food.

455 RESEARCH PROBLEMS IN NUTRITION AND FOODS (2-5)

Prerequisite: Home Econ 350, 353, 450 and 310 or equivalent. Significant current research in human nutrition and foods, research techniques and applications to selected problems.

461 CLOTHING AND HUMAN BEHAVIOR (3)

Implications and significance of clothing in Western society, with special emphasis on clothing symbolism, social stratification, development of self-concept and fashion. Normally offered alternate years or summers.

470 HOUSING AND SOCIETY (3)

Prerequisite: Soc 340. The personal environment and its relation to the community.

475 ADVANCED HOME FURNISHINGS (3)

Prerequisites: Home Econ 375; Home Econ 364 recommended but not required for interior design and merchandising majors; permission of department. Traditional and contemporary design in home furnishings; advanced planning problems.

476 CONTEMPORARY DESIGN IN HOME FURNISHINGS (2)

Prerequisite: Home Econ 175. American and international influences on contemporary design. (Normally offered alternate years or summer.)

477 FIELD EXPERIENCE IN INTERIOR DESIGN AND MERCHANDISING (3)

Prerequisite: Home Econ 478, senior status and 60 credits in prescribed interior design and merchandising concentration. Supervised experience in a professional interior design studio or retail interiors business. S/U grading only.

478 INTERIOR DESIGN PLANNING (3)

Prerequisites: Home Econ 475 and Tech 311 and 313 or equivalent; permission of department. Seniors only. S/U grading only. Planning course for interior designers or related design fields. Variety of projects—residential and institutional, presentations and critiques. Field trips to professional designers.

497k CREATIVITY WITH TEXTILES II (2)

Prerequisite: sewing skills. Opportunity for exploring creative uses of textiles for clothing and home furnishings and experimenting with new materials and methods to discover creative solutions. Workshop projects are applicable for pre-school through adult level and can be completed within a short-term period.





- 497m **NUTRITION AND FOODS FOR TEACHERS (2)**
Prerequisite: Home Econ 150 or equivalent. The development and application of nutrition and food concepts in the school curriculum.
- 497n **INTERNATIONAL FOODS II (2)**
Prerequisite: Home Econ 253, 353 or equivalent and upper-division standing. Lecture/demonstration of food preparation techniques in relationship to cultural/social aspects of food. Structured to meet needs of teachers or for the individual who has an interest in international cuisine.
- 497p **GOURMET FOODS II (2)**
Prerequisite: Home Econ 253, 353 or equivalent and upper-division standing. The art of gourmet cooking; development of cosmopolitan menus; laboratory experience, lectures and demonstration.
- 497q **GENERATIONS IN ACTION II (2)**
Prerequisite: one class in aging. This workshop is an examination of the physiological, psychological, social and cultural aspects of the aging process in relation to specific community programs. Time will be spent in working with and observing the elderly; and classroom discussion.
- 497r **TEXTILES AND CLOTHING CONSERVATION (2)**
Prerequisites: Home Econ 260 or equivalent; sewing skills; upper-division status. Construction of usable garments and accessories by recycling outdated clothing into current styles. Lecture, discussion, laboratory projects; resource speakers; illustrative slides and materials.
- 497s **CLOTHING RECYCLING LABORATORY (2)**
Prerequisite: one clothing construction class; basic textiles course recommended. Recycling and renewing used clothing to meet the inflationary problems in today's society.
- 497t **BUSINESS OF INTERIOR DESIGN (2)**
Prerequisite: junior or senior standing with major in housing, furnishings/equipment concentration or interior design major in approved program or working professional in interior design. Case study workshop with emphasis on ethnics; contracts and business forms; client relations; professional liaison with the disciplines of architecture and building construction; sources for the environment; compensations and fees; complaints and adjustments; installation; public relations.
- 497u **SEMINAR IN INFANT DEVELOPMENT (2)**
Prerequisite: upper-division standing. Areas to be covered are prenatal and neonate development; temperamental and cultural differences; physical growth and motor development; cognition and perception; social-emotional development.
- 498 **SCANDINAVIAN TOUR OF DESIGN AND ART (5)**
Prerequisite: permission of department. Summer tour of Norway, Sweden, Finland and Denmark; study of art, design, architecture, home furnishings, industrial design, arts and crafts.
- 500 **SPECIAL PROBLEMS IN HOME ECONOMICS (1-5)**
(See Home Econ 400.)



HUMAN SERVICES PROGRAM

At the time of going to press, the Human Services Program had not been formally assigned to a college. Some courses and requirements may change as a result of the assignment. Students should check with the Registrar or program director for further information.

The Human Services Program (HSP) is a two-year, upper-division, off-campus program leading to a Bachelor of Arts degree from Western Washington State College. The curriculum is an interdisciplinary systems orientation which draws concepts from a wide range of social science and organizational development perspectives. The curriculum stresses the knowledge that is basic for effective work in human service activities.

The curriculum is designed to use a field experience as a live laboratory throughout the two-year period. Thus, each student must be

working either as a paid staff member, or as a volunteer for 16 or more hours per week in an organization providing or facilitating human services to clients in the Puget Sound area. Classes will be conducted in the field at locations close to the student's living area (e.g., in Seattle, Mount Vernon, Everett, Bellingham etc.).

ELIGIBILITY

Applicants to the Human Services Program may be either:

- (a) Salaried employees who work in agencies and institutions which fit the human services category and who would like to complete their BA degree, or,
- (b) Persons who have, or can obtain, volunteer or fellowship placements with agencies or institutions which fit the human services category.

Preference will be given to those applicants who have completed two years of college or university study including the general education requirements (sciences, mathematics, communications).

Candidates who have not completed their general education requirements must do so as soon as possible on entering the program.

HUMAN SERVICES

Human services, as a field of study and practice, is concerned with both the voluntary and organized efforts to aid persons in fulfilling their needs for physical and mental health, education, employment, nutrition, shelter and recreation. Human services has become a growing employment and educational area since personal and group services are increasingly in demand both in human development and rehabilitation.

As employment opportunities and educational needs in human services increased, this program was developed to unify knowledge common to the human services area. Thus, for example, the program examines the wide range of forces operating within the individual person as well as those forces affecting the individual within natural groups, organizations and the larger community.

The placement of a student in a human services agency is critical to the educational program since knowledge must be related to the work being performed. The work assignment provides a laboratory in which knowledge can be applied, utilized and verified. The placement in a human services agency also helps a student select career areas.



HUMAN SERVICES FACULTY

- JESSE HIRAKA (1972) Director of Human Services, Professor of General Studies/Ethnic Studies. BA, Roosevelt University; MA, University of Chicago; PhD, Northwestern University.
- PAUL DAVID Lecturer. BA, University of Washington.
- DANIEL B. EDWARDS Lecturer. BA, University of California.
- BRUCE HARRIS Lecturer. BA, MA, Western Washington State College.
- GRETCHEN HEGEMAN Lecturer. BA, University of the City of New York; MA, University of Chicago.
- JOHN W. RIETZ Lecturer. BA, University of Miami; MEd, Western Washington State College; JD, University of Florida.

FORMAT FOR COURSES

The academic program will be conducted in the field through a variety of formats:

- (1) The core courses are delivered in a seminar format with ongoing "core groups" of students. Students will remain in the same core group for a full academic year.
- (2) Problem specific courses begin the second quarter of the first year as time in core courses is reduced. From that point on students are expected to participate either in problem specific seminars or to carry out independent learning programs. Problem specific seminars will be open to all students from all core groups but will be conducted at sites most convenient for the students actually enrolled.

The following offer examples of core and problem specific courses taught in previous years. Courses for 1977-79 are being developed for approval by the College's curriculum committees.

THE CORE COURSES

300 INTRA SYSTEMS CHANGE: INDIVIDUAL ANALYSIS (5)

The readings and activities planned for this course have been selected to provide each student with the basic conceptual tools for describing and understanding individual growth and change processes.

301 INTER SYSTEMS DEVELOPMENT: INTERPERSONAL ANALYSIS (5)

The objectives of this course are to provide each student with a working knowledge of the concepts of interpersonal systems. Included are the means used to interact with clients and the processes used to convert communications information into action plans.

302 GROUP SYSTEMS DEVELOPMENT (5)

The course material is designed to acquaint the student with the concepts and processes used to analyze and manage the interaction of two or more systems, be they people, groups or organizations. The focus for application is small-group interaction.

Human Services

400 DYNAMICS OF HUMAN SERVICE SYSTEMS PERFORMANCE (5)

This course attempts to provide the student with a conceptual frame of reference for analyzing the intrasystem and intersystem characteristics which promote the human service organization's goal achievement ability. Primary conceptual concern will be centered on the system's structure, values and technology and their degree of interdependence.

PROBLEM SPECIFIC SEMINARS

The selection of seminar offerings is based upon three factors: first, the needs of the students which reflect the reality of human service work in the field; second, the history of successful and often requested seminars to date; third, a logical and rational series of seminars which will provide students with the opportunity to learn at least one subject area in addition to core courses in some depth. Students are expected to design their course of study based upon in-depth work in at least one track.

The problem specific seminars are divided into three generic tracks. Each track has a series of courses designed to complement each other and, in most cases, follows a sequential series. The following are examples.

330 HUMAN SERVICE CLIENT DEVELOPMENT: CHILDHOOD (5)

331 HUMAN SERVICE CLIENT DEVELOPMENT: ADULT (5)

332 HUMAN SERVICE CLIENT DEVELOPMENT: FAMILY (5)

334 ETHNIC DEVELOPMENT AND HUMAN SERVICE INSTITUTIONS (5)

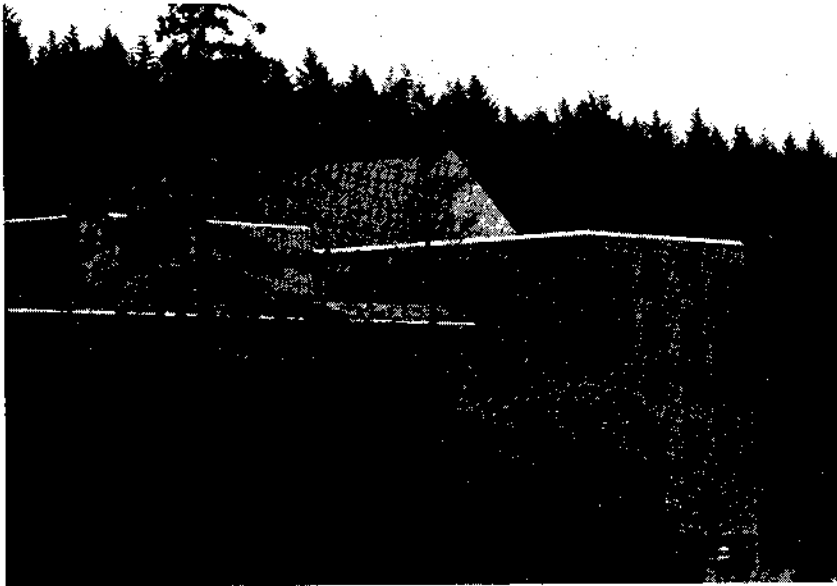
355 INTRODUCTION TO HUMAN SERVICES AND LAW (5)

360 ADULT LEARNING/CLIENT AND STAFF TRAINING METHODOLOGY I (5)

361 ADULT LEARNING/CLIENT AND STAFF TRAINING METHODOLOGY II (5)

Prerequisite: Human Services 360.





HUXLEY COLLEGE OF ENVIRONMENTAL STUDIES

HUXLEY FACULTY

- JAMES R. ALBERS** (1971) Professor and Vice Provost for Instruction and Planning, WWSC. BS, Washington State University; MS, George Washington University; PhD (Physics), University of Washington.
- RICHARD H. BERG** (1970) Associate Professor. BS, MS, University of Washington; PhD (Sanitary Engineering), Oregon State University.
- DAVID E. CLARKE** (1966) Associate Professor. BA, MA, Trinity (Cambridge); PhD (Political Science), Stanford University.
- SUSAN E. K. CLOUGH** (1976) Assistant Professor. BA, Wellesley College; PhD (Forest Zoology), State University of New York (Syracuse).
- RICHARD FRYE** (1975) Assistant Professor. BS, U.S. Naval Academy; PhD (Marine Resources Economics), University of Rhode Island.
- ERNST L. GAYDEN** (1971) Associate Professor. PhB, University of Chicago; MS (City and Regional Planning), Illinois Institute of Technology.
- JOHN C. MILES** (1968) Assistant Professor. BA, Dartmouth College; MA (Recreation and Park Management), University of Oregon.

- GILBERT A. PETERSON** (1972) Associate Professor. BS, Youngstown State University; MUP, PhD (Urban Planning), University of Washington.
- LYNN A. ROBBINS** (1971) Associate Professor. BA, University of Utah; MA, PhD (Anthropology), University of Oregon.
- WILLIAM C. SUMMERS** (1971) Associate Professor. BME, PhD (Zoology), University of Minnesota.
- MICHAEL F. SWEENEY** (1977) Visiting Assistant Professor. BFA, Utah State University; MLA (Landscape Architecture), University of Massachusetts, Amherst.
- HERBERT H. WEBBER** (1970) Associate Professor. BSc, PhD (Zoology and Marine Biology), University of British Columbia.
- RUTH F. WEINER** (1974) Professor. BS, MS, University of Illinois; PhD (Physical Chemistry), The Johns Hopkins University.
- HERBERT H. WONG** (1977) Visiting Associate Professor. BA, University of California, Berkeley; MA, California State University, San Jose; EdD (Education), University of California, Berkeley.
- MING-HO YU** (1970) Associate Professor. BS, National Taiwan University; MS, PhD (Plant Nutrition and Biochemistry), Utah State University.

Huxley College

Adjunct Faculty

Bert C. Brainard
Director of Environmental Health
Bellingham-Whatcom County Health District
M^{PH} (Public Health), University of Minnesota

Descriptive information on Huxley College and its programs is found in the Huxley College section of the "Colleges of Western" chapter of this catalog.

CONCENTRATIONS (for B.S. degree)

Concentrations focus on recognized areas of environmental concern. Student programs in the concentrations may draw upon a number of different disciplines for analysis. Concentrations are designed to prepare students for career opportunities. They cluster into three major areas of emphasis:

I Applied Ecology and Environmental Science

Ecosystems Analysis
Environmental Health
Systems and Simulations
Marine Resources

II Education and Human Ecology

Environmental Education
Environmental Journalism
Human Ecology

III Planning and Administration

Environmental Planning
Environmental Policy and Administration

I Applied Ecology and Environmental Science

Students electing concentrations in this group will focus primarily upon the scientific and technological dimensions of environmental studies.

Ecosystems Analysis (73 credit hours)

Man today is faced with many social, physical and biological problems. These problems are complex, involving many environments and ecosystems. Solutions have generally been proposed from narrow points of view resulting at best in partial success which often causes other unseen difficulties; e.g., control of insect pests with DDT.

Viable solutions to these problems lie in the holistic understanding of the impact of man on ecosystems, the functional units of our biosphere. The concentration focuses on impacted ecosystems by comparative analyses of both pristine and man-influenced ecosystems. Field investigations, environmental impact analysis and

modeling will be emphasized in this concentration. Consideration will be given to strategies for managing ecological systems.

Vocational opportunities are possible with various environmental regulatory agencies and agencies involved in the environmental impact assessment process. The concentration will also prepare students for graduate work in applied and interdisciplinary ecology programs.

Program advisers: James Newman, Susan Clough.

Recommended preparation: One year of biology; courses in statistics; and either organic chemistry or one year's course work in geography, sociology, economics or mathematics.

Concentration Requirements (49 credit hours)

Applied Ecological Theory and Analysis (22 credit hours)

- Hux 330a,b Applied Ecology (5)
- Hux 331a,b Applied Population Ecology (5)
- Hux 332 Applied Freshwater Ecology (4)
- Hux 340 Ethology (4)
- Hux 432 Cultural Ecology (4)

Causes of Ecological Disruption (13 credit hours)

- Hux 350a,b Introduction to Environmental Pollution (5)
- Hux 450 Environmental Biochemistry (4) and at least one of the following:
 - Hux 361 Water Pollution (4)
 - Hux 362 Air Pollution (4)
 - Hux 365 Energy and Energy Resources (4)

Management of Ecological Systems (14 credit hours)

- Hux 436 Environmental Impact Statements (6)
- Hux 483 Resource Economics (4) and at least one of the following:
 - Hux 435 Ecosystems Analysis and Management (4)
 - Hux 437 Applied Freshwater Resource Management (4)
 - Hux 485 Resource Management (4)

Concentration Electives (24 credits)

- Students will take at least 24 elective credits which support their area of interest within the concentration, i.e., mathematical modeling, wildlife or ecological management, pollution effects and rehabilitation, etc. These electives may be chosen (with the assistance of the adviser) from the offerings in any of the colleges at WWSC.

Environmental Health (68-70 credit hours)

The environmental health concentration is concerned with the understanding of those substances, forces and conditions in the surrounding environment that may influence man's health and well being. Such problems as air and water pollution, nutrition, food contamination, overpopulation,

pesticides and radiation exposure are considered. The concentration not only stresses creation of an environment which is healthful and contributes to high-quality living, but also seeks the tools and methodology to be used for analyzing environmental health related problems.

The environmental health program also provides sufficient flexibility so that the student interested in continuing with graduate education can plan his course work to meet graduate school admissions requirements.

There has been and will continue to be a great need for adequately trained people to monitor the environment and to plan and manage environmental health programs. Such persons are prepared to work in a variety of programs such as food quality control, water supply, sewage disposal, air pollution, water pollution, institutional health and general sanitation.

Program advisers: Ruth Weiner, Ming-Ho Yu.

Required preparation: One year each of biology and chemistry.

Concentration requirements: All environmental health students must complete the common requirements and either Option A (General Environmental Health) or Option B (Food and Nutrition).

Common Requirements (34 credit hours)

- Hux 330a Applied Ecology (3)
- Hux 350a,b Introduction to Environmental Pollution (5)
- Hux 352a,b Nutrition I (6)
- Hux 455 Pollutants and Health (4)
- Hux 497a Community Environmental Health Administration (1)
- Biol 345 Fundamentals of Microbiology (5)
- Biol 348-9 Human Anatomy and Physiology (10)

Option A—General Environmental Health Program (32 credit hours)

- Hux 361 Water Pollution (4)
- Hux 362 Air Pollution (4)
- Hux 436 Environmental Impact Statements (6)
- Hux 450 Environmental Biochemistry (4)
- Hux 451 Environmental Biochemistry Lab (2)
- Hux 497b Field Practice in Environmental Health (1)
- Chem 351-3 Organic Chemistry (11)

Option B—Food and Nutrition Program (30 credit hours)

- Hux 353 Food, Hunger and Malnutrition (4)
- Hux 400 Independent Studies in Food and Nutrition (5)
- Hux 432 Cultural Ecology (4)
- Hux 452 Nutrition II (4)
- Chem 251 Elementary Organic Chemistry (5)
- Home Econ 350 Child Nutrition (3)
- Home Econ 450 Nutrition: Aspects of Human Growth (5)

Concentration Electives (4 credit hours)

- Electives selected under advisement. Hux 383 (Environmental Economics) is strongly recommended.

Environmental Systems & Simulations (55 credit hours)

Environmental systems and simulations is an undergraduate program designed to give the student a comprehensive view of environmental issues. Environmental complexity is studied through modeling (including computer models) and simulation of natural and man-made systems. Typical topics are air and water systems, biological harvesting models, growth models, energy use and policy models, and the problem of social variables in physical models. Data gathering and measurement techniques are also considered. Use of the Huxley computer facility is encouraged.

Program adviser: Richard Berg.

Required preparation: One quarter each of chemistry, the calculus, and biology are required.

Concentration Requirements (43 credits)

- Hux 311 Introduction to Environmental Planning (4)
- Hux 330a Applied Ecology (3)
- Hux 335 Human Ecology (4)
- Hux 350a,b Introduction to Environmental Pollution (4)
- Hux 361 Water Pollution (4)
- Hux 362 Air Pollution (4)
- Hux 363 Quantitative Methods for Environmental Problems (4)
- Hux 365 Energy and Energy Resources (4)
- Hux 465 Systems Analysis (4)
- Hux 466 Natural Systems Simulation (4)
- Hux 483 Resource Economics (4)

Concentration Electives (12-15 credits)

- Choose any three from:
 - Hux 321a Oceanography and Marine Resources (3)
 - Hux 322 Marine Bioresources (2)
 - Hux 383 Environmental Economics (4)
 - Hux 436 Environmental Impact Statements (6)
 - Math 335 Introduction to Mathematical Programming (4)
 - Math 375 Numerical Methods (4)

Marine Resources (72 credit hours)

Although the oceans are not an infinitely large source of food for man's increasing population, they do provide an important protein source that is presently being inefficiently utilized. World demand necessitates a more effective use of this food resource. Marine organisms are also important in yielding products used in medicine and

industry. These biotic resources are jeopardized by over-harvesting, by use of the ocean as a waste disposal medium and by the development of off-shore oil production. The living resources are most important to man's present and probable future needs. To protect the potential of the oceans to produce biotic resources, it is essential to understand the ocean's physical environment, the oceanic biota and the ecological interrelations of marine organisms. A use of the biotic potential of the sea that is consistent with an understanding of the dimensions of the marine ecosystem is the theme of this concentration of study.

Marine resources graduates will be qualified for some environmental positions in state and federal agencies such as the Department of Ecology and the U.S. Bureau of Sports Fisheries and Wildlife. Private engineering consulting firms and industries are also seeking people with an environmental biology background.

Graduate programs in a number of disciplines are open to marine resources graduates who wish to continue their education. Students may enter programs in biology, oceanography, ecology, marine biology or fisheries.

Program advisers: William Summers, Bert Webber.

Recommended preparation: Option I of Huxley's general education program is the basic preparation for marine resources. However, the following preparation is recommended: an additional quarter of general biology, a year of general chemistry; a course in physical geology; and courses in calculus and computer programming.

Concentration requirements: All marine resource students must complete the common requirements and either Option A (assessment and impact process) or Option B (marine biology). Alternative options are possible, but should be described early in the student's program and must be approved by his/her faculty adviser.

Students wishing to complete the marine biology option (Option B) are required to have three quarters of biology (or equivalent), three quarters of chemistry (or equivalent), and calculus.

Common Requirements (44 credits)

- Hux 321a Oceanography and Marine Resources (3)
- Hux 322 Marine Bioresources (2)
- Hux 324 Marine Ecology and Fisheries (5)
- Hux 330a,b Applied Ecology (5)
- Hux 350a,b Introduction to Environmental Pollution (5)
- Hux 422 Pollution and Marine Analysis (5)
- Hux 423 Techniques of Marine Analysis (4)
- Hux 335 Human Ecology (4); or Hux 353 Food, Hunger and Malnutrition (4); or Hux 432 Cultural Ecology (4); or Hux 470 Environmental Ethics (4)
- Biol 340 Biometrics (5)

- Biol 361 Biology of Commercially Important Species (3)
- Geol 340 Geological Oceanography (3)

Option A--Assessment and Impact Process (30-31 credits)

- Hux 311 Introduction to Environmental Planning (4)
- Hux 332 Applied Freshwater Ecology (5)
- Hux 361 Water Pollution (4)
- Hux 436 Environmental Impact Statements (6)
- Hux 483 Resource Economics (4); or Hux 485 Resource Management (4)
- Electives (7-8) to be chosen under advisement

Option B--Marine Biology (30-31 credits)

- Biol 310 Lower Organisms (5)
- Biol 312 Animal Biology (5)
- Biol 456 Algae (5); or Biol 461 Marine Invertebrates (5)
- Biol 462 Ichthyology (5)
- Chem 351-3 Organic Chemistry (11); or Chem 251 Organic Chemistry (5) and Chem 333 Analytical Chemistry (5)

II Education and Human Ecology

The emphasis in these concentrations is upon social and humanistic dimensions of environmental problems. Problems of culture and society, learning and lifestyle are examined by students focusing their studies in this area.

Environmental Education

The general objective of the concentration in environmental education is to provide students interested in educational roles of various types with an opportunity to obtain a basic understanding of the qualities of the environment in general and of the environmental education process in particular. A number of options have been developed within the program which will allow students with varied interests opportunities toward diverse career goals.

The program consists of several distinct parts. First, all students acquire a synthetic and holistic understanding of the content of environmental studies. Second, students examine the process of education from the environmental perspective; i.e., how the environmental education process differs from other processes of education, what ideas and methods are central to the process and what specific techniques are available to facilitate the process. Third, students learn the content and techniques essential to function in the professional role which they wish to play. Courses may be taken in journalism, elementary education, disciplinary areas essential for secondary school teaching, recreation, media technology or other areas. Fourth, students participate in internships, a field practicum, or research.

Program advisers: John Miles, Herbert Wong.

The options within the present program include the following:

Option A—Teacher Education: The goal of this option is not to train a specialist in environmental studies but to assist in the training of teachers of one of the traditional subject areas. It is possible to complete this program in the normal four-year college program only if advisement begins in the freshman year. A program in cooperation with the elementary education program or the respective disciplinary department must be worked out individually for each student.

Option B—Outdoor Education and Environmental Interpretation: The goal of this option is to prepare people to pursue environmental education careers in non-formal educational and recreational settings. People choosing this option will design programs of study which should prepare them for work as outdoor education leaders and interpreters of various environments.

Option C—Mass Communications and Environmental Education: This option allows a student to combine his interests in education, environmental studies, mass communications and/or media technology, utilizing extensively the offerings of departments which specialize in various aspects of communications.

Concentration Requirements

Option A—Teacher Education (87 credits)

1. Required courses:
 - Hux 371 Education as an Environmental Process (4)
 - Hux 472 Environmental Education Curriculum (4)
 - A minimum of two courses from:
 - Hux 377 Alternative Futures (4)
 - Hux 417 The Community Process (4)
 - Hux 470 Environmental Ethics (4)
 - Hux 473 Environmental Interpretation (4)
2. Secondary subject concentration (35-45 credit hours) or elementary teaching minor (35 credit hours)
3. Ed 310, Psych 352 or 353 (8 credit hours)
Ed/Psych 491-492 (12 credit hours)
Ed 494 or 495 (16 credit hours)
Field-based education sequence recommended

Option B—Outdoor Education and Environmental Interpretation (64 credits)

1. Required courses (27 credits)
 - Hux 330a Applied Ecology (3)
 - Hux 350a Introduction to Pollution (4)
 - Hux 371 Education as an Environmental Process (4)
 - Hux 383 Environmental Economics (4), or Hux 480 Urban Economics (4), or Hux 483 Resource Economics (4)

- Hux 430 Environment and Politics (4), or Hux 432 Cultural Ecology (4), or Hux 436 Environmental Impact Statements (6)
- Hux 470 Environmental Ethics (4)
- Hux 473 Environmental Interpretation (4)
- 2. Coursework under advisement in Huxley, biology, recreation, education, or other appropriate fields (37 credit hours)

Option C—Mass Communications and Environmental Education (64 credits)

1. Required courses (27 credits)
 - Hux 330a Applied Ecology (3)
 - Hux 350a Introduction to Pollution (4)
 - Hux 371 Education as an Environmental Process (4)
 - Hux 377 Alternative Futures (4)
 - Hux 383 Environmental Economics (4), or Hux 480 Urban Economics (4), or Hux 483 Resource Economics (4)
 - Hux 430 Environment and Politics (4), or Hux 432 Cultural Ecology (4), or Hux 436 Environmental Impact Statements (6)
 - Hux 470 Environmental Ethics (4)
2. Coursework under advisement in education and/or media technology (37 credits)

Environmental Journalism

A program of 100 credit hours involving a double Huxley-Journalism major may be elected. The student electing this program will have an adviser both in Huxley and in Journalism. The Huxley portion of the program will provide the student with a basic background in environmental studies and with the option to further broaden this background or to examine a subsection of environmental studies in some depth. The journalism portion of the program will of course provide the tools of the journalistic profession.

Program adviser: John Miles.

Concentration Requirements

1. General education as required by Huxley
2. Journalism major: 45 credit hours, 15 credit hours in environmental studies to be applied to the major requirement
3. Huxley concentration (54 credit hours)
 - Concentration requirements (35)
 - Hux 304/305 Man, Society and Environment I and II (10)
 - Hux 311 Introduction to Planning (4)
 - Hux 330a Applied Ecology (3)
 - Hux 350a, 350b Introduction to Environmental Pollution (5)
 - Hux 383 Environmental Economics (4)
 - Hux 430 Environment and Politics (4)
 - Hux 499 Seminars (6)
 - Concentration electives (20 credit hours, under advisement)
 - Hux 335 Human Ecology (4)
 - Hux 351 Food, Hunger and Malnutrition (3)

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- Hux 370 Environmental Psychology (4)
- Hux 436 Environmental Impact Studies (4)
- Hux 470 Environmental Ethics (4)
- Or 20 hours under advisement for the student wishing to acquire depth in a particular area of environmental studies.

Human Ecology (61 credit hours)

The human ecology concentration is a general one designed to give students experience in a wide area of inquiry. It touches on cultural ecology, the dynamics of human population, environmental ethics, political action, ecosystems, pollution, and assessment of environmental impacts, among other subjects. To pursue the goals of the concentration, a student systematically explores numerous fields of study. Perhaps foremost, he gains an understanding of the enormous complexity of human problems in modern society.

Enterprising and well-organized human ecology students have had little difficulty finding employment in federal agencies, local service organizations and elsewhere. The wide background of these students serves them well in addressing themselves to the variety of challenges in their chosen careers.

Graduate study is a second option open to human ecology students. Several excellent graduate programs in the U.S. provide a continuation of in-depth study in human ecology; or the student may enter graduate programs in fields such as anthropology, sociology, geography, political science or psychology.

Huxley graduates in human ecology have generally been able to enter graduate programs of their choice.

The concentration allows many opportunities for self-enrichment independent of career goals *per se*.

Program adviser: Lynn A. Robbins.

Recommended preparation: Courses in biology, anthropology, sociology and history.

Concentration Requirements (49 credit hours)

- Hux 311 Introduction to Environmental Planning (4)
- Hux 330a Applied Ecology (3)
- Hux 335 Human Ecology (4)
- Hux 350a Introduction to Pollution (4)
- Hux 383 Environmental Economics (4)
- Hux 419 Technology: Change and Assessment (4)
- Hux 431 Human Population Dynamics (4)
- Hux 432 Cultural Ecology (4)
- Hux 436 Environmental Impact Statements (6)
- Hux 470 Environmental Ethics (4)
- Soc 322 Social Ecology (3)
- Soc 315 Social Statistics (5)

Concentration Electives (12 credit hours, selected under advisement)

- Hux 301 Challenge of Survival (4)
- Hux 353 Food, Hunger and Malnutrition (4)
- Geog 341 Urban Geography (5)
- Anth 310 Rise of Civilization (5)
- Hist 436 Technology and Society in Early European History (5)
- Biol 348, 349 Human Anatomy and Physiology (5 each)
- Hux 430 Environment and Politics (4)
- Computer Science 110 Introduction to Programming (3)

III Planning and Administration

These concentrations prepare graduates to apply the social, natural and physical sciences to land-use planning and other administrative and control matters in environmental quality.

Environmental Planning (104 credit hours)

Bringing a natural scientist's understanding of environmental systems to bear on problems of human organization is the role of the environmentally based planner. He must understand the processes of both natural and social systems and how they are integrated over time and space. He must also understand the ways in which decisions are made and implemented by both groups and individuals. He must understand the tools and techniques of gathering, analyzing and presenting information, and of equal importance, he must be esthetically sensitive to the need for variety and unity in harmony with his surroundings.

Huxley offers a three-year professional program in environmental planning. The curriculum provides the student with an understanding of the functional processes of both natural and cultural systems and basic planning theory principles, policy and methods. Studios in the final year in the three basic scales of planning—regional, urban and site—permit the student to apply the knowledge gained in the preceding years in real-world experiences which require field investigation, data analysis, professional report preparation and public presentation.

The program in environmental planning leading to the B.S. degree requires nine quarters to complete. Students wishing to graduate in six quarters may take a limited number of planning courses; they should direct themselves to filling the generalist requirement for the B.A. degree.

Graduates of the environmental planning program have been accepted in major graduate planning programs throughout the nation. Graduates desiring to enter the job market will be fully prepared for introductory level positions in city, county and regional planning agencies and private

consulting firms. Students normally find professional employment within a few months of graduation.

Program advisers: Ernst L. Gayden, Gil Peterson, Michael Sweeney.

Recommended preparation: Courses in social science, including one course each in economics, geography, political science and sociology. Courses in natural science, including geology. Courses in humanities, including literature. A course in basic drawing, design or cartography. In addition, courses in statistical reasoning, calculus and computer programming may prove useful.

Concentration Requirements (104 credit hours)

Planning courses (41 credit hours)

- Hux 311 Introduction to Environmental Planning (4)
- Hux 312 The Planning Process (4)
- Hux 313 Graphic Analysis and Presentation (3)
- Hux 405 Principles of Regional Planning (3)
- Hux 407 The Urban Ecosystem (3)
- Hux 408 Principles of Site Planning (3)
- Hux 410 Biophysical Methods for Planning (3)
- Hux 411 Regional Environmental Planning (6)
- Hux 412 Urban Environmental Planning (6)
- Hux 413 Open Space Planning (6), or Hux 414 Environmental Site Planning (6)

Related environmental problem courses (8 credit hours)

- Hux 350a Introduction to Pollution (4)
- Hux 470 Environmental Ethics (4)

Concentration support courses (37 credit hours)

- Environmental Systems:
 - Hux 330a Applied Ecology (3)
 - Geol 310 Geomorphology (5)
 - Geog 422 Geography of Water Resources (5)
 - Geog 423 Geography of Soils (3)
- Social Systems:
 - Hux 335 Human Ecology (4)
 - Hux 431 Human Population Dynamics (4)
- Decision Process:
 - Math 240 Introduction to Statistics (3), or other statistics course
 - Hux 436 Environmental Impact Statements (6)
 - Hux 480 Urban Economics (4), or Hux 483 Resource Economics (4)

Concentration Electives (18-22 credit hours)

- 3-5 credits each from environmental systems and decision process groups of structured electives, and 12 credits from social systems group of electives, selected under advisement

Environmental Policy and Administration (62 credit hours)

This concentration combines a study of environmental problems with the theory and practice of policy formulation and administration. Current environmental legislation and its administration are dealt with, in both national and international contexts. Non-traditional policy formulation is included also.

The program is especially suited for pre-law students. With appropriate electives, the student would also be qualified for further study in business administration or public administration. Students are encouraged to carry a minor in a related area, such as economics or public administration.

Some internships are available to satisfy the problem series requirement.

Program advisers: David Clarke, Richard Frye, Ruth Weiner.

Concentration Requirements (45-50 credit hours)

The student must complete the following:

1. 21 credit hours of common requirements *and*
2. three courses from Area 1, below, *and*
3. three courses from Area 2, below.

Common Requirements (21 credit hours)

- Hux 330a Applied Ecology (3)
- Hux 335 Human Ecology (4)
- Hux 350a Introduction to Pollution (4)
- Hux 383 Environmental Economics (4), or Hux 480 Urban Economics (4), or Hux 483 Resource Economics (4)
- Hux 436 Environmental Impact Statements (6)

Area 1- Existing Policy (12-14 credit hours)

- Hux 311 Introduction to Environmental Planning (4)
- Hux 430 Environment and Politics (4)
- Hux 432 Cultural Ecology (4)
- Hux 497c Evolution of Administrative Theory and Practice: Environmental Aspects (4)
- Pol Sci 320 Introduction to Public Administration (5)
- Pol Sci 424 Theory of Public Organizations (5)
- Fairhaven Environmental Law (9), when offered

Area 2—New Trends in Policy (12-15 credit hours)

- Hux 312 The Planning Process (4)
- Hux 365 Energy and Energy Resources (4)
- Hux 377 Alternative Futures (4)
- Hux 467 Politics, Transformation and Environmental Constraint (5)
- Hux 470 Environmental Ethics (4)
- Hux 497d Problems of Environmental Policy Formulation and Implementation (4)
- Pol Sci 372 Political Change (5)

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Concentration Electives (12-17 credit hours)

☐ Electives will be selected under advisement

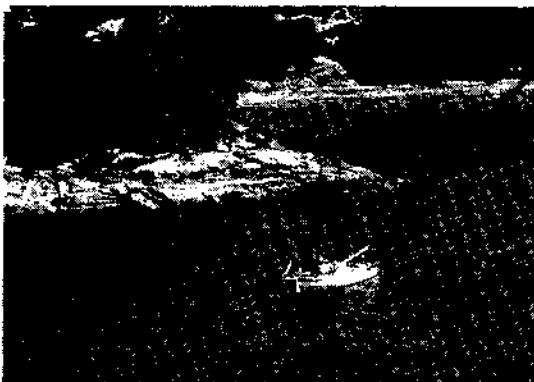
Student-Designed Concentration

Students who wish to design their own concentrations in environmental studies should obtain information on guidelines from the Huxley office. The student-designed concentration must be approved by two faculty members and the Curriculum Committee at least four quarters before anticipated graduation.

COURSE DESCRIPTIONS

- 300 INDEPENDENT STUDY, FWS (1-6)**
Conference course permit required. May be repeated for credit. Prerequisite: permission of instructor.
- 301 CHALLENGE OF SURVIVAL, FWS (4)**
An overview of the environmental macroproblem with emphasis on specific cases which reveal the complexity of environmental problems. The course deals with social, political, economic, humanistic, and scientific issues in their environmental context, and is designed as a basic introduction to environmental studies.
- 304 MAN, SOCIETY AND ENVIRONMENT I, F (5)**
Hux 304 and 305 make up the core course sequence which is required of all Huxley students. The core courses are designed to give all students a common background in environmental studies. The emphasis is to integrate a wide variety of information into a unified description of the present state of the environment. In particular, the problems of population, food supply, industrialization, resource use, pollution and social and political factors will be examined. Prerequisite: Huxley general education requirements or permission of instructor.
- 305 MAN, SOCIETY AND ENVIRONMENT II, W (5)**
Hux 305 is the second core course for Huxley students and is a continuation of Hux 304. The course is in two parts: the first continues from the last section of 304 and deals with specific environmental problems and their solutions. The second part is a discussion of alternative futures. Prerequisite: Hux 304 or permission of instructor.
- 311 INTRODUCTION TO ENVIRONMENTAL PLANNING: THEORY AND PHILOSOPHY, F (4)**
Development of the rationale for planning; the relation of environmental perception and notions of environmental quality to environmental problems and solutions. The nature and scope of environmental planning, based on a systems view of the natural and man-made environments as different but interacting; the basic concepts essential for developing and using planning methods to resolve man-environment problems.
- 312 THE PLANNING PROCESS, W (4)**
Survey of the four basic steps of the planning process, with emphasis on enabling requirements and implementation. Other topics include state and federal planning, policy, citizen participation, and agency organization. Prerequisite: Hux 311 or permission of instructor.
- 313 GRAPHIC ANALYSIS AND PRESENTATION, S (3)**
Graphic techniques for analysis of planning problems; graphics as an alternative to verbal and tabular presentations of information. Tools, materials, and methods in graphics design, execution, and reproduction, especially for papers and reports. Prerequisite: Hux 312.
- 321a OCEANOGRAPHY AND MARINE RESOURCES, F (3)**
Principles of oceanography. Physical and biological resources from the oceans. Utilization of marine resources. Prerequisite: introductory biology and chemistry or permission of instructor.
- 322 MARINE BIORESOURCES, F (2)**
Analysis of the potential for harvest and culture of biotic resources in the oceans. Methods of exploitation and regulation problems. Prerequisite: Hux 321 or permission of instructor.
- 324 MARINE ECOLOGY AND FISHERIES, W (4)**
Descriptions of marine ecosystems and marine ecology and their effects on fisheries resources through competition. Emphasis on open ocean systems will be maintained, though contrasts with coastal, freshwater and terrestrial examples will be made. Prerequisite: one year of biology, one course in oceanography or ecology, or permission of instructor.
- 330a, 330b APPLIED ECOLOGY; APPLIED ECOLOGY LABORATORY, F (3, 2)**
Application of concepts and methods of ecological theory to environmental problems. Prerequisite: two quarters of general biology.
- 331a, 331b APPLIED POPULATION ECOLOGY; APPLIED POPULATION ECOLOGY LABORATORY, S (3, 2)**
Application of the theories and techniques of population ecology to the study of man-animal relationships; e.g., pest control, wildlife management. Prerequisite: Hux 330a,b or Biol 325 or equivalent, or permission of instructor.
- 332 APPLIED FRESHWATER ECOLOGY, W (4)**
Introduction to the freshwater environment with emphasis on basic principles governing the function of lake, pond and stream ecosystems. The importance of physico-chemical and biological factors will be considered along with the effects of man's activities on natural processes.
- 335 HUMAN ECOLOGY, S (4)**
A survey of the historical development of writings and concepts in human ecology. This course provides an overview of man's views of himself as a creature interacting with the natural environment. Basic human ecology concepts are strongly emphasized.
- 340 ETHOLOGY, F (4)**
A comparative approach to the study of animal behavior encompassing both innate and acquired patterns of behavior. Emphasis will be placed on evolution, genetics, ontogeny and survival value of behavior. The approach will include both the relations of the organism to its environment (ecology) and its relationship to members of its own species (sociology). Prerequisite: Hux 330a.
- 350a,b INTRODUCTION TO ENVIRONMENTAL POLLUTION; ENVIRONMENTAL POLLUTION LABORATORY, F,W (4, 1)**
An introduction to the problems of air and water pollution, pesticides, radiation, hazardous substances and noise. This course provides information on the current status of the technology of environmental quality and stresses the interaction of pollutants with human health and the environment. Laboratory experiments deal with basic techniques involved in air and water analysis. Prerequisites: general biology, general chemistry.
- 352a,b NUTRITION I; NUTRITION I LABORATORY, F (4, 2)**
Introduction to the disciplines of food and nutrition with emphasis on relationship between nutrition and health. Laboratory involves experimental techniques used in analysis of food and body fluids. Prerequisite: general biology and chemistry or permission of instructor. Register concurrently for 352a,b.

- 353 **FOOD, HUNGER AND MALNUTRITION, W (4)**
 Overview of world food problems; the nature and effects of hunger and malnutrition on man's health. Prerequisite: introductory nutrition.
- 361 **WATER POLLUTION, W (4)**
 Wastewater characteristics are identified. Aquatic response to waste discharge is discussed. Methods of waste treatment to reduce environmental impact are presented. Prerequisite: Hux 350a,b.
- 362 **AIR POLLUTION, S (4)**
 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. Prerequisite: Hux 350a,b; general chemistry.
- 363 **QUANTITATIVE METHODS FOR ENVIRONMENTAL PROBLEMS, F (4)**
 A review of basic mathematics and its application to chemical, physical and biological problems. Discussion topics are exponents, trigonometry, functions, dimensional analysis, graphics, calculus, differential equations, and statistical inference.
- 365 **ENERGY AND ENERGY RESOURCES, W (4)**
 The study of the energy concept as it applies to the environment. Concepts of thermodynamics, entropy, chemical rates. Thermodynamics of evolution energy flow in biological systems. Energy flow in primitive and industrial societies. Energy legislation, rate structures; methods of power generation. Prerequisite: permission of instructor.
- 371 **EDUCATION AS AN ENVIRONMENTAL PROCESS, F (4)**
 The process of environmental education is explored through reading and discussion focusing on environmental perception, attitudes and values in behavior, the educational environment, and the qualities of the environmental education curriculum. The course provides an introduction to environmental education and a review of current thinking in this dimension of education.
- 377 **ALTERNATIVE FUTURES, W (4)**
 Predictions, projections, and extrapolations of alternative futures are examined. The course provides an introduction to the growing field of future studies. People learning about the world of today will have to live in a potentially different world tomorrow. What preparation for the future can be made? What efforts today might insure a positive alternative future? The literature of future studies is reviewed.
- 383 **ENVIRONMENTAL ECONOMICS, F (4)**
 Economic analysis of environmental quality; environmental quality as a public good. Theory of economic efficiency and the concept of an "optimal" amount of pollution. Welfare criteria for resource allocation. Implications of the no-growth economy. Listed jointly as Econ 383. Prerequisite: Econ 202.
- 397c **INTRODUCTION TO THE BEHAVIOR OF MARINE INVERTEBRATES (5)**
 Behavior analysis of selected marine animals. Comparative, physiological and ethological aspects of behavior theory and data are examined. Lectures and laboratory. Also offered as Psych 397c. Prerequisite: Psych 201 or Biol 101.
- 398 **INTRODUCTION TO PROBLEM SERIES, W (2)**
 Practicum in scientific methodologies, experimental designs and analyses, survey techniques and critical evaluation. Problem definition and applied aspects of data handling and presentation are taught with emphasis on a holistic, environmental approach. S/U grading.
- 400 **INDEPENDENT STUDY, FWS (1-6)**
 Conference course permit required. May be repeated for credit. Prerequisite: permission of instructor.
- 406 **PRINCIPLES OF REGIONAL ENVIRONMENTAL PLANNING, F (3)**
 This course will examine various theories and approaches that have been advanced for regional planning by such persons as Powell, Downing, MacKay, Ikes, Hilberseimer, Mumford, McHarg and others. Selected regional plans will be studied, including the Tennessee Valley Plan, the New York Regional Plan, the Columbia Basin Plan, the Twin Cities Plan, and the Puget Sound Regional Development Plan. Prerequisite: Hux 312 AND permission of instructor.
- 407 **THE URBAN ECOSYSTEM, W (3)**
 This course will attempt to develop the concept of the urban ecosystem, a holistic view of human settlement as an integrated system of physical elements and cultural processes, created for the satisfaction of human needs and wants. Prerequisite: Hux 311 and 335.
- 408 **PRINCIPLES OF ENVIRONMENTAL SITE PLANNING, S (3)**
 Principles of design that promote ecologically and sociologically sound and esthetically satisfying environments at the scale that most humans perceive. The place of site planning in the comprehensive planning process, site analysis, plan elements, and landscape methodologies. Prerequisite: Hux 312.
- 410 **BIOPHYSICAL METHODS FOR PLANNING, S (3)**
 The student will be given experience in identifying and structuring biological and physical data, primarily from secondary sources, to be used as land-use determinants. The course is structured around a series of problems which focus on geology, physiography, hydrology, soils, fish and wildlife habitat, land use and scenic analysis. Students will be required to conduct field studies. Emphasis will be placed on the preparation of data for public presentation—graphic matrices, maps, etc. The course is primarily designed for environmental planning students, but is also pertinent to any student interested in environmental impact analysis methods. Prerequisite: completion of general education and science requirements.
- 411 **REGIONAL ENVIRONMENTAL PLANNING STUDIO, F (6)**
 Examination of the functional processes of the natural systems in large-scale areas, particularly regional river basins. Identification of natural systems variables as determinants for land-use classifications. Prerequisite: Hux 406 and permission of instructor.
- 412 **URBAN ENVIRONMENTAL PLANNING STUDIO, W (6)**
 Developing schemes of functional relationship of the major components of the urban environment. Application of principles of functional design to the problems and needs of contemporary societies, particularly for new towns, villages and cities. Prerequisite: Hux 407 and 411.



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- 413 ENVIRONMENTAL SITE PLANNING STUDIO, S (6)
Applying principles of design that promote ecologically sound and esthetically satisfying environment at the scale that most humans perceive: the dwelling, the neighborhood, the street, the park, etc. Solutions of the problems will be graphic and non-graphic, and may include such considerations as weather and climate, insolation and orientation, topography and surficial geology, plant cover and landscaping. Prerequisite: Hux 408 and 412.
- 414 OPEN SPACE PLANNING, S, odd-numbered years (6)
Examination of open space as a basic framework for community and regional development. State and federal planning requirements; management planning practices as conducted by selected public agencies; open space as a comprehensive plan element. Prerequisite: Hux 312, Rec 402, or permission of instructor.
- 417 THE COMMUNITY PROCESS, W (4)
This course is designed to provide an action component to the problem orientation of Huxley College. Students will identify community problems, examine the problem from the perspective of the sociologist, environmentalist, and community organizer. Course requirements include appropriate readings by contemporary community scholars; student involvement in a specific community problem; and the development of an annotated bibliography to assist the student in understanding the problem. Case studies of national, regional and local community problems are presented via guest speakers and media presentations.
- 419 TECHNOLOGY: CHANGE AND ASSESSMENT, F (4)
The ways new technologies are devised and their uses and effects on ecological and human systems. The anthropological, political and economic dimensions of technologies are examined.
- 422 POLLUTION AND MARINE ANALYSIS, W (5)
Major pollution problems in the oceans; U.S. agencies responsible for water quality; techniques of pollution analysis. Prerequisite: Hux 321 and organic chemistry, or permission of instructor.
- 423 TECHNIQUES OF MARINE ANALYSIS, S (4)
A field course dealing with all forms of aquatic, biological sampling and harvesting, with special emphasis on marine fauna. Survey designs and sampling strategies will be covered and the subject coverage will include meiofauna, plankton, benthic forms, nekton and neuston. Prerequisite: Hux 321 or permission of instructor.
- 430 ENVIRONMENT AND POLITICS, S (4)
History of environmental problems and their economic and political causes; national and international political reactions; the nature and extent of needed changes.
- 431 HUMAN POPULATION DYNAMICS, W (4)
The social, cultural and anthropological aspects of human population dynamics. Prerequisite: courses in social science recommended.
- 432 CULTURAL ECOLOGY, S (4)
Exploration of the relationship between energy use and cultural complexity; the relationships between human groups and the natural environment; the competitive relationship between cultures. The relationships will be explored historically and analytically. Prerequisite: Anth 201.
- 435 ECOSYSTEMS ANALYSIS AND MANAGEMENT, S (4)
A workshop study of the dynamic interactions within and between natural and manipulated ecosystems. Emphasizes management and rehabilitation of ecosystems, using techniques of ecological and systems analysis. Prerequisite: Hux 330a,b, 331a,b; or two upper-division ecology courses; or permission of instructor.
- 436 ENVIRONMENTAL IMPACT STATEMENTS, W,S (6)
A course designed to provide a survey of the environmental impact statement process, including requirements of state and federal environmental policy acts. An understanding of both EIS preparation and review responsibilities will be sought. Various legal aspects, citizen involvement and environmental assessment methodologies will be reviewed. Prerequisite: senior standing or permission of instructor.
- 437 APPLIED FRESHWATER RESOURCE MANAGEMENT, S (4)
Management aspects of productivity in lake, stream and pond environments; community structure (trophic levels and seasonal influences); pollution and its detection (use of benthic macroinvertebrates as indicators of pollution); case studies of various management practices. Prerequisite: Hux 332.
- 450 ENVIRONMENTAL BIOCHEMISTRY, W (4)
Transformation of carbon, nitrogen, phosphorus, sulfur and certain trace elements in soil, water, atmosphere and biological systems; biochemical effect of environmental pollutants. Prerequisite: Hux 350a, 350b and Chem 251.
- 451 ENVIRONMENTAL BIOCHEMISTRY LAB, S (2)
Experimental techniques in the analysis of pollutants in tissues. Prerequisite: concurrent registration in Hux 450 or permission of instructor.
- 452 NUTRITION II, F (4)
Chemistry and biochemical role of essential nutrients and their interrelationship; intermediary metabolism of nutrients. Prerequisite: Hux 352a, Chem 251 and Biol 349.
- 455 POLLUTANTS AND HEALTH, S (4)
Physiological and toxicological effects of common pollutants found in man's environment. Mechanism of action of individual pollutants, including cellular damage at molecular level. Prerequisite: Hux 350a and Chem 251 or permission of instructor.
- 465 TECHNIQUES OF ENVIRONMENTAL SYSTEMS ANALYSIS, W (4)
An introduction to the systems approach. A special emphasis on continuity equations, economic aspects of decision making and decision theory. Prerequisite: Hux 363 or equivalent.
- 466 NATURAL SYSTEMS SIMULATION, S (4)
The basic principles of modeling theory are applied to aquatic problems. The application of basic principles of science and systems engineering are used to solve practical problems in the analysis, planning and management of natural systems. Prerequisite: Hux 465.
- 467 POLITICS, TRANSFORMATION AND ENVIRONMENTAL CONSTRAINT, W (5)
Incompatibility between the growth-oriented goals of contemporary political cultures and environmentally derived "steady-state" imperatives; alienation and environmental degradation as the dual result of the "conquest of nature" ideology; the politics of transformation and value-change. Prerequisite: Hux 304, 305; or permission of instructor. (Also offered as Pol Sci 467.)
- 470 ENVIRONMENTAL ETHICS, S (4)
An examination of philosophical dimensions of man-environment relations, with emphasis upon ethical problems. Several contrasting views of man are considered, and the influence of these philosophical positions upon environmental behavior examined. An attempt is made to identify an environmental ethic which might be operable in modern society.

- 472 THE ENVIRONMENTAL EDUCATION CURRICULUM, S (4)
Critical review of curricula that have been developed. The need for environmental education is assessed, learning objectives are examined, and strategies for attaining these objectives studied. The qualities of the ideal environmental education curriculum are identified by each student, based on his research into the matter. Prerequisite: Hux 371.
- 473 ENVIRONMENTAL INTERPRETATION, S (4)
A field-oriented course in methods, techniques and design of environmental education programs. Natural, historical and cultural systems are interpreted.
- 478 TOPICS IN ENVIRONMENTAL STUDIES, F,W,S variable credit
Environmental problems of northwest Washington and related topics. A survey course including impact assessment, local and regional planning, pollution problems, problems of the environmental classroom. *This course is available only off-campus under the aegis of Continuing Education. It is not available to Huxley majors. May be repeated for credit.*
- 480 URBAN ECONOMICS, S (4)
Economic forces behind urbanization. Urban public finance, welfare economics and efficient resource allocation. Economic analysis of urban problems, including land use, housing and poverty, education, transportation, and environment. Listed jointly as Econ 480. Prerequisite: Econ 202.
- 483 RESOURCE ECONOMICS, W (4)
Theories for the efficient allocation of natural resources over time. Benefit-cost analysis as a criterion for public choice. Effects of property rights; distributional considerations and social cost. Listed jointly as Econ 483. Prerequisites: Econ 202; Geog 207 recommended.
- 485 RESOURCE MANAGEMENT, W (4)
Case studies in natural resource management; data gathering and analysis; policy formulation. Preparation of policy position paper.
- 497a COMMUNITY ENVIRONMENTAL HEALTH ADMINISTRATION, W (1)
An introduction to the methods of administering environmental health programs at the local level. Prerequisite: Hux 350a or permission of instructor.
- 497b FIELD PRACTICE IN ENVIRONMENTAL HEALTH, W (1)
This course will acquaint the student with actual field problems encountered in administering local environmental health programs. Prerequisite: concurrent enrollment in Hux 497a.
- 497c EVOLUTION OF ADMINISTRATIVE THEORY AND PRACTICE: ENVIRONMENTAL ASPECTS, S (4)
The historical development of administrative theory and practice with special reference to the formulation and implementation of environmental policy. Prerequisite: a course in American government, Hux 304, 305 or permission of instructor.
- 497d PROBLEMS OF ENVIRONMENTAL POLICY FORMULATION AND IMPLEMENTATION, W (4)
Incrementalism and fragmentation as obstacles to the formulation and implementation of environmental policy. The political task of developing institutions able to achieve environmental objectives. Prerequisite: Hux 304, 305 or permission of instructor.
- 497e VALUES, EDUCATION AND THE ENVIRONMENT (3)
Students of current environmental problems suggest that these problems are a consequence of a "system of belief and value" about humankind and nature which is dominant in the West and is a product of centuries of cultural history. This course examines this argument and explores ways in which problems of value inherent in American life and related to environmental difficulties can be explored in education.
- 497f WILDLIFE ECOLOGY IN THE URBAN ENVIRONMENT (5)
An examination of wildlife ecology of urban areas, considering the urban environment as a wildlife habitat. Principles of wildlife biology will be presented, including adaptations of wildlife to urban environment, impact of urban environment on wildlife, and use of wildlife as biological indicators of environmental quality. Techniques of observation, censusing and habitat analysis will also be studied. Prerequisite: a course in biology.
- 497g HUMANISTIC EDUCATION AND THE ENVIRONMENT (3)
This course examines humanistic education and its potential for environmental education. Rationales for humanistic education in this context are explored and the relationship between this and other dimensions of environmental education are considered. Methods of achieving the special goals and objectives of "humanized" environmental education are examined.
- 498 PROBLEM SERIES, FWS (2-15)
Problem-solving experience in environmental problems and internships in positions appropriate to the student's program. Conference course permit required. May be repeated for credit.
- 499a SEMINAR, FWS (1)
Student-faculty interaction on topics of general interest. May be repeated for credit. S/U grading.
- 499b SEMINAR, FWS (2)
Student-faculty interaction. May be repeated for credit. S/U grading.
- 499c SEMINAR, FWS (1)
Student-faculty interaction on topics of general interest. May be repeated for credit.
- 499d SEMINAR, FWS (2)
Student-faculty interaction. May be repeated for credit.
- 500 DIRECTED RESEARCH, FWS (2-5)
Individual research on topical problems relating to environmental studies. Conference course permit required. May be repeated for credit.
- 501 GRADUATE SEMINAR IN ENVIRONMENTAL STUDIES, FWS (3)
This course offers an opportunity for graduate students in all areas of environmental studies to come together with several faculty to study, explore and discuss the interrelated nature of environmental problems and their solutions. Prerequisite: graduate status.
- 513 ENVIRONMENTAL ANALYSIS FOR LAND USE PLANNING, F (6)
This course is designed to give the student practical experience in the application of analytical environmental methodologies for identifying land-use determinants. Students will examine the parameters of the functional processes of the natural systems and utilize such data in the developing models for land-use planning. Applying their models through automated data retrieval equipment, the students will test land-use proposals in terms of resource suitability and impact. This class will be conducted as a planning studio, with students working in small groups. Access will be provided to a digitizer for the purpose of automating data.



INTERDEPARTMENTAL PROGRAMS

College of Arts and Sciences

AMERICAN STUDIES

The American Studies Program is a major-minor concentration intended to serve students and faculty who are interested in the study of American culture and who find that important aspects of our culture cannot be studied by fulfilling the requirements for the major within a single department. Whenever possible, the program takes advantage of the rich curricular offerings of the various departments and colleges. It supplements these with conference courses and special topics seminars at the upper-division level.

The American Studies Program is a liberal arts program. It is of interest to students seeking education in breadth as well as depth. It also offers suitable undergraduate background for specialized study in law, social work, business, theology or other professions, for entry into government

service, and for graduate work in American studies or other areas of the liberal arts.

Further information about the program, including descriptions of the individualized courses of study, is available from members of the American Studies Executive Committee: R. Buckland (General Studies), J. Hiraoka (Ethnic Studies), R. DeLorme (History), T. Lee (English), W. Lobue (General Studies), J. Martin (Political Science), W. Stoever (General Studies) or M. Lewis, program director (English).

BACHELOR OF ARTS

Major 90-95 credits

General Requirements (36-38 credits)

- Hist 103, 104, or equivalent (10)
- Eng 316, 317, or equivalent (8)

- Two courses in the social sciences, selected under advisement from Anth 201 or Soc 202; Pol Sci 101 or 250; Econ 201 or Hist 360; Geog 201, 345 (8-10)
- Art History 360 [and prerequisite: one course from Art History 220, 230, 240] (6)
- American Studies 202—Introduction to American Studies (4) [also listed as General Studies 202]

Individualized Program of Study 51-56 credits

A program formulated by the student, a member of the American Studies faculty and the director, and approved by the American Studies faculty. Ordinarily final approval of the student's course of study must come before the student reaches senior status. No program may substantially duplicate an existing department program; normally no more than 40 credits can be taken in any single department.

Myth and Folklore in American Culture—the study of the literary, anthropological and historical formulations of myth. Selected courses in the Bible as literature, classical mythology, and language and culture as well as the study of the central myths of American culture as expressed in history, literature, thought, and political and economic institutions. Students are urged to study comparative mythology and folklore and utilize the offerings of the College of Ethnic Studies.

Northwest Studies—the emphasis here is presently on the geographical and sociological and historical approaches to the study of regional culture. Through individual conference courses students may also study regional economics and literature. Possibilities for field work and utilization of materials in the Center for Pacific Northwest Studies.

Religion in America—examination of the place of religious values, traditions and institutions in American culture and society. Selected courses in history, sociology, anthropology, philosophy, literature, and the study of religion; individual conferences; student projects.

Science and Technology in America—the effect of science and technology on American values and institutions. Selected courses in Western civilization, the history of science and the philosophy of science; American economic and intellectual history with electives from technology, psychology, anthropology and Huxley.

The American Character—The role of ideas, institutions and events in shaping the character of American culture and society. Selected courses in social and intellectual history, literature, sociology, anthropology, psychology and political science, as they bear on the study of American national character and American self-understanding.

Other areas of study are available, but the specific content of all must be approved by the director and the American Studies Executive Committee.

COURSES IN AMERICAN STUDIES

- 202 INTRODUCTION TO AMERICAN STUDIES (4)
Methods and principles of interdisciplinary studies through investigation of a topic in American Studies. Also offered as General Studies 202.
- 300 DIRECTED INDIVIDUAL STUDY (1-3)
Prerequisite: permission of instructor and program director. Individual study of a topic not covered or not available in a formal course.
- 400 DIRECTED INDIVIDUAL STUDY (1-3)
Prerequisite: permission of instructor and program director. Individual study of a topic not covered or not available in a formal course.
- 499 SPECIAL PROBLEMS (4)
Prerequisite: American Studies 202 and senior status. A research or field project designed to demonstrate the student's competence in working with the tools of the discipline.

CANADIAN-AMERICAN STUDIES PROGRAM

Western Washington State College is uniquely situated in respect to Canada. The international border is just a few miles to the north, and Vancouver, British Columbia, the third largest metropolis in Canada, is only a hour away. Interested students may wish to further their education through courses which focus upon Canada, its geography, history, polity, economy, educational systems, etc.

In order to assure proper organization of the program and commensurate recognition for students who engage in it, a minor in Canadian and Canadian-American Studies has been established. The courses are offered by participating departments. Some are regional in nature, some are national in their concern, and some are comparative. In addition, various departments offer courses in independent study with approved topics under direction of participating faculty members.

Minor 30 credits

The minor is applicable to either the Bachelor of Arts or Bachelor of Arts in Education degree. For descriptions of the individual courses, see course listings in this catalog under individual departmental listings.

- Geog 311; Hist 377; Pol Sci 406
- Recommended courses: Eng 320a; French 450; Geog 312, 346, 486 (Canadian orientation); Hist 301, 401 (Canadian emphasis), 391, 477; Pol Sci 301, 417h; Speech 483; Anth 462

Approved independent study courses are available in selected departments. Independent study credit will constitute no more than five out of the total (30) credits required.

Interdepartmental

Related courses: Anth 361, 411, 461; Ed 414; Econ 482; Pol Sci 291, 420, 422; Geog 207, 310, 341; Hist 337, 468.

For advisement, consult the director, Dr. Robert Monahan, Department of Geography.

EAST ASIAN STUDIES

In recognition of the increasing importance of East Asia in human affairs, Western Washington State College established the program in East Asian Studies in September of 1970. The program stresses the interdisciplinary study of the region and is designed to attain three objectives. First, it offers students an opportunity to acquire accurate, detailed and comprehensive knowledge of a region that has traditionally been slighted in American education. Second, it prepares students who wish to teach courses on East Asia in community colleges and high schools or who are attracted by the growing job opportunities related to East Asia in business and government. Third, it provides solid undergraduate training for students who plan to enter East Asian graduate studies at Western or elsewhere.

Presently, the program offers a minor in East Asian Studies. Students interested in majoring in East Asian Studies should consult with the Department of General Studies to set up a student-faculty designed interdisciplinary major.

Minor 30 credits

The following minor is applicable to either the Bachelor of Arts or Bachelor of Arts in Education degree. It 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.

- At least one of the following: East Asian 301, 302, 303; History 280; Pol Sci 307
- Remaining credits to be selected from:
 - Anth 464
 - East Asian 310, 311, 367, 368
 - Gen St 272, 273, 274, 275
 - History 480, 481, 482, 483, 484
 - Pol Sci 417d, 430, 431, 432, 476

COURSES IN EAST ASIAN STUDIES

301, 302, 303 THE CULTURES OF EAST ASIA: THE EARLY, MIDDLE AND RECENT PERIODS (4 ea)

Prerequisites: the chronologically appropriate courses from either History 105, 106, 107 or Gen St 121, 122, 123 sequences are recommended as background for comparative study of East Asia. Need not be taken in sequence. A survey of East Asian aesthetic, literary and philosophical traditions and their interaction with the evolving political, social and economic institutions of China, Japan, Korea and Mongolia.

- 301 Prehistory to c. 1000 AD. The founding of high civilization in China and the early stages of its transmission to Japan, Korea and Mongolia.
- 302 c 1000 to 1800 AD. The Chinese universal state at the height of its aesthetic and technological creativity and influence within East Asia and beyond. The feudal and early modern culture of Japan and the alternative routes to sophisticated culture in Korea and Mongolia.
- 303 1800 to the present. East Asia's transition to the contemporary order in the presence of Western civilization's intrusion into East Asia.

310 MONGOLIA AND THE MONGOLS (4)

Prerequisite: East Asian 301 or 302 or 303 recommended. An introductory survey of the art, architecture, history, languages, literature, music, peoples and religions of Mongolia.

311 KOREA: ITS PEOPLE, CULTURE AND HISTORY (5)

Prerequisite: Hist 280 or one of the East Asian 301-303 sequence. A general survey of the history of the Korean people and the evolution of their culture and society from prehistoric times to the present, including the period of Japanese imperial control, 1910-1945, and the contemporary epoch of division, 1945-present.

367 THE LITERATURES OF EAST ASIA IN TRANSLATION (5)

Selected readings in Chinese, Japanese, Korean and Mongolian literary masterpieces from earliest times to early modern times.

368 THE LITERATURES OF EAST ASIA IN TRANSLATION (5)

Selected readings in Chinese, Japanese, Korean and Mongolian literary masterpieces from early modern times to the present.

400 DIRECTED INDIVIDUAL STUDY (1-5)

Prerequisite: permission of instructor. Individual study of topics not normally covered in formal courses.

The Program in East Asian Studies also offers tutorials in Advanced Chinese, Advanced Japanese and Advanced Korean.

Related courses are: Anth 362, 464; Art 370, 470, 471; Chinese 101, 102, 103, 201, 202, 203; Ethnic Studies 205, 340, 352; General Studies 271, 272, 273, 274, 275; Geography 315; History 280, 480, 481, 482, 483, 484; Japanese 101, 102, 103, 201, 202, 203; Korean 101, 102, 103; Political Science 307, 417d, 430, 431, 432, 476.

For further information and advisement, consult Dr. Henry G. Schwarz (Humanities Building 217), Director of the Program in East Asian Studies.

GENERAL SCIENCE

Recommendation for teaching competence in general science normally requires completion of the major in general science.

BACHELOR OF ARTS IN EDUCATION

Major Elementary 45 credits

- Physics 131; 105 and/or Geog 331
- Chem 115 or 121; Geol 211, 212

- Biology 120
- Electives under advisement*

Major Concentration 75 credits

This concentration satisfies both the major and the minor for junior high school teachers.

- Physical Science—25 credits under advisement,* including Phy Sci 492, Physics 131, 132, 133, and Chem 115 or 121 or equivalent
- Biological and Earth Sciences—25 credits in one field and 15 in the other, selected under advisement, including Biol 493 or Geol 390, Physics 204 and/or 321 or equivalent
- General Science 405 or equivalent
- Electives under advisement*

COURSES IN GENERAL SCIENCE

- 306 PHYSICAL FOUNDATIONS OF MUSIC (4)**
Prerequisite: junior standing. A non-mathematical introduction to the nature of sound. Particular attention will be given to the musical and physical aspects of sound phenomena. The acoustic and electronic methods of producing and modifying sound will be discussed. Some topics included are: the synthesis and analysis of musical sound, characteristics of musical instruments, the distinction between "natural" scales and tempered scales. Laboratory. Also offered as Physics 306.
- 405 HISTORY OF SCIENCE (5)**
Prerequisite: 30 credits in biological and/or physical science. The nature, methods, and development of science and the role of science in society; recommended for all science majors.

INDUSTRIAL DESIGN

The Bachelor of Science degree in industrial design provides an interdisciplinary course of studies that develops graduates for professional activities as designers, planners, managers, illustrators or specialists in the areas of industrial production, design education or marketing.

Industrial design students must complete the usual general college requirements. They should be aware of the prerequisite for Math 250 (Math 124, 220, 240 depending on options). They should take Chemistry 115 and Physics 131 as part of the general college science requirement.

While it is possible to complete the requirements for the Bachelor of Science degree within four years, students who do enter the program as freshmen or students who desire to take elective

*The coordinator of Science Education is the adviser for this program.

courses outside of the areas included in the Industrial Design Program should recognize that additional work beyond the usual four-year period may be required. Notice the options for professional enrichment specified as a guide, not required for graduation.

Students are advised to carefully plan to meet the minimum requirements for WWSC graduation: fulfill the general college requirements, acquire 60 upper-division credits (the ID program totals approximately 47 upper-division credits), and accrue a minimum of 180 total credits.

Early consultation with the adviser of the Industrial Design Program, Mr. Marvin A. Southcott, Department of Technology, is essential.

BACHELOR OF SCIENCE

Major 109 credits

Basic Core: (Industrial Design/Technology) 60 credits

- Tech 120, 210, 214, 215, 222 or 223, 224, 231
- Tech 311, 313, 315, 316, 317, 333
- Tech 416

Supporting Courses: 49 credits

- BA 330
- Psych 201 or Gen St 105
- Physics 131, 132
- Art 101, 202, 370
- Art History 230*, 240*
- Math 250, 251, 252, or 124, 220, 240, Computer Sci 110

Recommended: These courses are suggested for a more comprehensive foundation for professional practice.

- Tech 222 or 223, 240, 260, 309, 391*, 400, 418
- BA 271
- Home Econ 175*, 375
- Art Hist 220*
- Chem 115*, 208*, 209
- Physics 133
- PE 201

For extension of experience and professional enrichment (not required for graduation):

- Option I- Tech 402 (up to 15 credits)
- Option II—Tech 323, 328, 335, 420, 421, 422, 434

Minor 25 credits

- Approved courses selected from the Industrial Design major basic core, under advisement of Industrial Design Program adviser

*Courses applicable to general college requirements, 50-70 credits required.

Interdepartmental

LATIN AMERICAN STUDIES

This program is offered so that the student interested in the area of Latin America may be able to concentrate a portion of his academic work in this area free of the stricture of departmental programs and to make more viable the relationships among the separate courses in this area offered by the departments of this College. The following minor is applicable to either the Bachelor of Arts or the Bachelor of Arts in Education degree. A major in Latin American Area Studies is available through the student-faculty designed majors program (see General Studies section of this catalog).

Minor 30 credits

- 15 credits in Spanish 100 and 200 level courses, or demonstration of proficiency
- 15 credits in courses relating to Latin America

For advisement, consult Dr. Harley E. Hiller, Department of History.

LEISURE STUDIES

As our society becomes increasingly leisure-oriented and increasingly responsive to needs for leisure activity, career opportunities for professionals in recreation become more numerous and diverse. The leisure studies curriculum prepares students to plan, develop and manage leisure resources; to live in a leisure-oriented society; to pursue careers in the leisure-oriented professions; and to conduct, interpret and understand leisure research.

The curriculum adapts the quarter system of scheduling to a block system enabling the expanded use of recreation educators from other institutions, from supporting disciplines at Western, and from other recreation resources in the community. The modular scheduling facilitates a wider range of educational experiences by utilizing working professionals in the educational process.

The following outline illustrates the quarters selected for block scheduling of core classes.

	<i>Fall</i>	<i>Winter</i>	<i>Spring</i>	<i>Summer</i>
<i>Fresh.</i>				
<i>Soph.</i>			I	
<i>Junior</i>		II	III or III	
<i>Senior</i>		IV		

Students interested in this program should contact Leisure Studies for current information on admission procedures. The program is popular and the number of major and minor students is limited.

BACHELOR OF ARTS

Major Concentration 65 credits

- Basic Core: LS 171
- Phase I: LS 271, 272, 274, 275; Hux 301
- Phase II: LS 371, 372, 373, 374, 375; Hux 377
- Phase III: LS 471
- Phase IV: LS 450, 472, 475; Hux 371

Supporting Areas

In addition to the basic core, majors must complete an area of support in one of the following areas (35 hours under advisement):

Community Services: This area of support is designed to give students a broader knowledge of contemporary social problems, community organization, cultures and sub-cultures, and other factors influencing the administration of leisure services in the community.

Students selecting this option will normally seek employment in municipal recreation departments, senior citizens centers, hospitals, correctional settings, armed services, industrial recreation, youth agencies and other community based recreation programs. (35 credits under advisement from the following:)

- LS 323, 421
- Anth 201, 431, 481
- Soc 202, 310, 330, 340, 351, 352, 465, 467
- Ethnic Studies 300

Leisure and Natural Resources: This area is designed to study man's use of his natural resources for recreation services and draws heavily on the offerings of the Huxley College of Environmental Studies for this emphasis. It prepares personnel qualified to face the challenge in developing and managing our resources in the general interest of society. (35 credits under advisement from the following:)

- LS 321, 322
- Hux 302, 303, 304, 311, 312, 320, 401, 411, 412, 413, 480, 483
- Biol 120, 311, 312, 401, 407
- Geol 211, 214
- Geog 341, 372, 421, 422, 430
- Econ 415, 482

Leisure Research and Planning: This option is intended to provide a foundation for further study

in research and planning. Students will be prepared to conduct research, to understand and interpret it, and to communicate research to non-research recreational personnel. (35 credits under advisement from the following:)

- LS 321, 322, 451, 452
- Computer Science 110 and Math 240
- Soc 310, 315
- Geog 341, 372, 430
- Hux 411, 412, 413
- Pol Sci 265

Minor 35 credits

- Basic Core: LS 171
- Complete Phases I and II in the modular scheduling

COURSES IN LEISURE STUDIES

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| <p>101 LEISURE AND SOCIETY (3)
Service course dealing with the expanding role of leisure in contemporary American life; emphasis on contemporary factors influencing leisure; analysis of leisure values as related to individual and society.</p> <p>171 FOUNDATIONS OF RECREATION AND LEISURE (3)
Professional course dealing with the background, present status, future goals and challenges of leisure and the leisure service professions.</p> <p>201 WILDERNESS AND LEISURE (3)
Service course dealing with the historical analysis of American wilderness; wilderness history, preservation, camping, overuse, ecology, geographic areas, and wilderness as a leisure experience.</p> <p>271 COMMUNITY LEISURE SERVICES (4)
Survey course combining volunteer work in a local leisure service agency with a seminar covering the kinds of services available and who participates in them. The seminar will include agency personnel, faculty, students and people participating in the services.</p> <p>272 LEISURE AND NATURAL RESOURCES (3)
Survey course on the interrelationships of man's leisure pursuits and the environment.</p> <p>273 CAMPING AND OUTDOOR RECREATION (3)
Counselor training, types of camping, ACA standards. Includes actual camping experience.</p> <p>274 PROGRAMS FOR SPECIAL GROUPS (3)
Prerequisite: majors and minors only. Techniques, materials and methodology for conducting recreation programs for the aged, handicapped, mentally ill, mentally retarded, delinquent, disadvantaged and other special groups.</p> <p>275 PROFESSIONAL PRACTICUM (2)
Program observation and participation in a variety of community agencies providing leisure services.</p> | <p>322 RECREATIONAL FACILITY DESIGN AND DEVELOPMENT (3)
Prerequisite: junior standing. Analysis of recreation resources, agencies and organizations, concepts of management, policies and problems, feasibility for development, planning and design considerations, and value determination.</p> <p>371 PHILOSOPHICAL AND HISTORICAL BASIS OF LEISURE (3)
Prerequisite: Phase I. Philosophical and historical implications of leisure; changing concepts of time, work, education and leisure, and their impact on American values, culture and life style.</p> <p>372 LEISURE GROUP STRATEGIES (3)
Prerequisite: Phase I. Principles and techniques employed in guiding and directing community and leisure development through group processes.</p> <p>373 COMMUNITY ANALYSIS AND PROGRAM DEVELOPMENT (3)
Prerequisite: Phase I. Basic principles of programming to meet specific community needs. Assessment and analysis of community composition in terms of user preference. Emphasis will be placed on correlating the programs with a philosophical rationale.</p> <p>374 SUPERVISED FIELD WORK (3)
Prerequisite: Phase I. Supervised laboratory experience in the leisure service professions.</p> <p>390 TOPICS IN SPECIALIZED RECREATION (3)
Prerequisite: junior standing. Topics dealing with leisure services for specific populations—alcoholic, delinquent, criminal, mentally ill, nursing home. Subject of each class will be announced in the class schedule. Repeatable.</p> <p>400 SPECIAL PROJECTS (1-5)
Prerequisite: Phase II. Approved and supervised individual research projects may be undertaken to supplement specific needs.</p> <p>421 LEISURE AND RETIREMENT (3)
Prerequisite: junior standing. Concepts of leisure, recreation and retirement are developed and examined as potential social replacements for work and productivity in modern society.</p> <p>445 CURRENT TRENDS IN LEISURE SERVICES (1-3)
Prerequisite: junior standing. Selected topics in recreation which vary from quarter to quarter. Consult class schedule for information.</p> <p>450 LEISURE RESEARCH DESIGNS (3)
Prerequisite: Phase III. Course critique and analysis of current leisure research methods.</p> <p>452 LITERATURE REVIEW AND ANALYSIS (3)
Prerequisite: Phase III. Current literature in the field of leisure is reviewed and analyzed. Emphasis is on discussion of selected literature and expanding student awareness of the resources available.</p> <p>471 INTERNSHIP AND SEMINAR (15)
Prerequisite: Phase II. Full-time supervised professional experience emphasizing functional proficiency under joint sponsorship of university and agency personnel. S/U grading.</p> <p>472 ADMINISTRATION (5)
Prerequisite: Phase III. Planning, supervision, administration, personnel, financing and evaluation of leisure service programs.</p> <p>475 AREAS AND FACILITIES MANAGEMENT (3)
Prerequisite: Phase III. Management principles, practices and problems of recreation and park areas and facilities. Funding sources, operational techniques and consultant services.</p> |
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Interdepartmental

497c OUTDOOR EXPERIENTIAL EDUCATION: A MEANS OF PHYSICAL EDUCATION (3)

Prerequisite: teaching experience. The course examines the rationales of outdoor programs (such as "Project Adventure," "Outward Bound"), examines their methodologies and reviews evaluations of them. Specific outdoor activity and the problems and possibilities of this approach to physical education are explored experientially. Concurrent enrollment in PE 170 is advised. Also offered as PE 497w.

LINGUISTICS

Linguistics provides valuable background information about man's use of language, knowledge of which is essential to careers in teaching language and helpful to those in anthropology, psychology, speech and education.

Minors

These concentrations in general and applied linguistics may be taken by candidates for the Bachelor of Arts or the Bachelor of Arts in Education degrees. Minors are available in the departments of anthropology, English, foreign languages and speech.

Basic Courses

- Linguistics 201, 301, 302, 303
- Speech 373

Additional work according to department chosen:

- English (Arts and Sciences)—add English 370, 470, 471
- English (Teacher Education)—see English minor with Linguistics Emphasis
- Foreign Languages (either degree) add 6 credits selected under departmental advisement in a foreign language
- Anthropology (Arts and Sciences)—add Anth 448 and 5 additional credits selected under departmental advisement
- Speech (consult the director)

For advisement, consult Mr. Vladimir Milicic (Humanities Building 219), Director of Interdepartmental Program in Linguistics.

COURSES IN LINGUISTICS

- 201 INTRODUCTION TO LINGUISTICS SCIENCE (5)
Survey of linguistic method and theory.
- 202 COMPARATIVE LINGUISTICS (3)
Prerequisite: Linguistics 201. Principles of language typology, linguistic geography, comparative methods, and historical reconstruction.

203 SOCIOLINGUISTICS (3)

Prerequisite: Linguistics 201. Relationship between social classes and dialect in America, with attention to dialectic groups of interest to class.

301 PHONOLOGY (5)

Prerequisite: Linguistics 201. Theory, methods, and problems of phonological analysis and description.

302 MORPHEMICS (3)

Prerequisite: Linguistics 201. Theory, methods, and problems of morphemic analysis and description.

303 SYNTAX (3)

Prerequisite: Linguistics 201. Comparative survey of modern theories of grammar with special reference to syntax.

397a INTRODUCTION TO SEMIOTICS (4)

Prerequisite: upper-division standing. Open to anyone interested in the study of signs, particularly in "soft" sciences and humanities. Semiotics of literature and other arts will be the focus of the class work.

402 READINGS IN LINGUISTICS (3)

Prerequisite: permission of instructor. Directed research on topic selected by student; may not be repeated.

404 LINGUISTICS AND LITERATURE (3)

Prerequisite: Linguistics 201 or Foreign Languages 310. Importance of linguistic contributions to literary analysis; linguistics and theory of literature; common problems.

PHYSICAL SCIENCE

BACHELOR OF ARTS IN EDUCATION

Major Secondary 45 credits

- General Science 405 or equivalent
- Chemistry 121, 122, 251
- Physics 231, 331, 332 (or 131, 132, 133)
- Physical Science 492
- Electives selected under advisement to include at least one upper-division course

Bachelor of Arts in Education programs leading to teaching certification in earth science-physical science and in biology-physical science are available. For these programs, see the Geology Department and the Biology Department listings, respectively.

For the physical science majors, Dr. John Miller, Chemistry Department, is the adviser.

COURSES IN PHYSICAL SCIENCE

- 382 PHYSICAL SCIENCE FOR THE ELEMENTARY SCHOOL (3)
Prerequisites: Sci Ed 380; general education requirements in science or equivalent. Philosophy, concepts, learning, experiences and materials for the physical sciences suitable to the elementary school. (Also offered as Sci Ed 382.)

- 492 **PHYSICAL SCIENCE FOR THE JUNIOR AND SENIOR HIGH SCHOOL (3)**
Prerequisite: 15 credits in chemistry or physics. Content, materials, and methods of teaching general physical science, physics, and chemistry in junior and senior high schools.

SCIENCE EDUCATION

Students planning to major in a science for elementary or junior high teaching, see majors in general science, physical science or earth science.

Questions relating to these courses should be directed to Dr. Robert Christman, Geology Department, the Coordinator of Science Education. Students interested in other science education courses see Biology 493, Geology 390, Physical Science 492.

COURSES IN SCIENCE EDUCATION

- 380a,b,c **SCIENCE FOR THE ELEMENTARY SCHOOL (3)**
Prerequisites: general education requirements in science and mathematics. Selected generalizations and processes in science adaptable to the elementary school; an introduction to theory and practice in science education.
380a Primary Emphasis
380b Intermediate Emphasis
380c K-6 Emphasis
- 381 **SCIENCE FOR THE ELEMENTARY SCHOOL (3)**
Prerequisite: Sci Ed 380. Classroom-laboratory study of "new" curricula; observation and participation in public schools. Intended for students preparing to teach at the elementary level.
- 382 **PHYSICAL SCIENCE FOR THE ELEMENTARY SCHOOL (3)**
Prerequisites: Sci Ed 380; general education requirements in science or equivalent. Philosophy, concepts, learning experiences and materials for the physical sciences suitable to the elementary school. (Also offered as Physical Science 382.)
- 383 **BIOLOGICAL SCIENCE FOR THE ELEMENTARY SCHOOL (3)**
Prerequisites: Sci Ed 380; general education requirements in science or mathematics. Philosophy, concepts, learning experiences, and materials for the biological sciences suitable to the elementary grades.
- 384 **EARTH SCIENCE FOR THE ELEMENTARY SCHOOL (3)**
Prerequisite: Geol 101. Concepts, experiences, and materials from the earth sciences adaptable to the elementary school with emphasis on the elementary grades. (Also offered as Geol 384.)
- 430 **ENVIRONMENTAL EDUCATION (2-5)**
Prerequisite: Sci Ed 380 or Biol 493 or Phys Sci 492 or Geol 390; teaching experience or permission of instructor. Methods of teaching environmental science in selected content areas with related examination of environmental problems.
- 445 **CURRENT TRENDS IN SCIENCE EDUCATION**
445a **Classroom Methods (3-6)**
Prerequisites: Sci Ed 380 or equivalent; teaching experience or permission of instructor. Activity-centered approach to a study of modern science curriculum materials and activities for use in elementary and junior high classes.
445b **Field Methods in Environmental Education (3-12)**
- 480 **SPECIAL PROJECTS IN SCIENCE FOR THE ELEMENTARY GRADES (2-5)**
Prerequisites: one course from Sci Ed 381, 382 (or Phys Sci 382), 383 or 384; permission of instructor. Projects involving science instructional materials and curriculum. Repeatable for credit.
- 490 **SPECIAL PROJECTS IN SCIENCE TEACHING IN THE JUNIOR AND SENIOR HIGH SCHOOL (2-5)**
Prerequisites: one course from Biol 493, Geol 390, Phys Sci 492; permission of instructor. Projects involving science instructional materials and curriculum. Repeatable for credit.
- 500 **SPECIAL PROJECTS IN SCIENCE (2-5)**
Prerequisite: completion of the undergraduate teacher education program or permission of instructor. Special science topics and their relation to a K-12 science program. Repeatable for credit.
- 501 **ADVANCED STUDIES IN SCIENCE EDUCATION (3-5)**
Prerequisite: teaching experience or permission of instructor. A critical study of research and developments related to science education. Repeatable for credit.
- 511 **INTERNSHIP IN SCIENCE EDUCATION (3)**
Prerequisite: permission of instructor. Assisting with the teaching of an on-campus science methods course for preservice elementary school teachers. S/U grading only.
- 512 **INSERVICE WORKSHOPS IN SCIENCE EDUCATION (3)**
Prerequisite: permission of instructor. Planning and implementing a series of not less than three inservice workshops in elementary school science. May be repeated for elective credit. S/U grading only.
- 513 **SCIENCE CURRICULUM, GRADES K-12 (3)**
Prerequisite: teaching experience or permission of instructor. Examination of science curricula for grades K-12 with major emphasis on elementary grades as a basis for development of a science curriculum and teacher's guide for use in local school systems.
- 514 **SEMINAR IN ELEMENTARY SCIENCE EDUCATION (1-3)**
Prerequisite: permission of instructor.
- 580 **SPECIAL PROBLEMS IN SCIENCE TEACHING IN THE ELEMENTARY SCHOOL (2-5)**
Prerequisite: teaching experience or permission of instructor. Problems related to science instruction and curriculum. Repeatable for credit.
- 582 **SPECIAL TOPICS IN THE PHYSICAL SCIENCES FOR ELEMENTARY SCHOOL TEACHERS (4)**
Prerequisite: Sci Ed (or Phys Sci) 382 or Sci Ed 380, 381 or equivalent. In-depth study of topics in the physical sciences most appropriate for instruction in the elementary school.
- 583 **SPECIAL TOPICS IN THE BIOLOGICAL SCIENCES FOR ELEMENTARY SCHOOL TEACHERS (4)**
Prerequisite: Sci Ed 380 and 381 or 383 or equivalent. In-depth study of topics in the biological sciences most appropriate for instruction in elementary school.
- 584 **SPECIAL TOPICS IN THE EARTH SCIENCES FOR ELEMENTARY SCHOOL TEACHERS (4)**
Prerequisite: Sci Ed 380 and 381 or 384 or equivalent. In-depth study of topics in earth sciences most appropriate for instruction in the elementary school.

Interdepartmental

- 590 SPECIAL PROJECTS IN SCIENCE TEACHING IN THE JUNIOR AND SENIOR HIGH SCHOOL (2-5)
Prerequisites: teaching experience or permission of instructor. Problems related to science instruction and credit. Repeatable for credit.
- 690 RESEARCH (2-6)
Prerequisite: admission to program; permission of instructor. Restricted to thesis-related research; not more than 6 credits allowed toward the minimum of 45 credit hours.

- Other social sciences: 48 credits
 - History 391
 - Other history or political science: 25 credits including at least 10 hours of upper-division credit
 - Other social science: 20 credits in any combination from any two social sciences not otherwise developed in the program

(Successful completion of this program with a 2.5 GPA leads to certification of teaching competency in both geography and the social studies.)

SOCIAL STUDIES EDUCATION

The interdepartmental programs emphasize history and the social sciences. Students electing these programs develop academic areas most frequently represented in common school curricula. Majors develop one area in depth plus support areas.

For advisement or approval of these majors, students should consult Dr. Harry Jackson, director of social studies education.

BACHELOR OF ARTS IN EDUCATION

Major-Minor Concentration in History-Social Studies

History-Social Studies for junior and senior high school teacher Option I—95 credits

- History—50 credits
 - European two courses
 - Non-west two courses
 - United States three courses
(two of which must be upper-division)
 - History 401
 - History 391
 - Social Studies Education 426
 - History electives under advisement to total 50 credits
- Social Sciences—45 credits
 - Geography of Political Science 25 credits
 - Social Science 20 credits
(from two social science areas not otherwise developed in the program)

(Successful completion of this program with a 2.5 GPA leads to teaching competency recommendations for both history and the social studies.)

Major-Minor Concentration in Geography-Social Studies

Geography-Social Studies for junior or senior high school teachers Option II—93 credits

- Geography Secondary Education major: 45 credits (see Geography section of this catalog)

Major-Minor Concentration in Political Science - Social Studies

See Political Science section of this catalog for description.

Major—Social Studies 45 credits

(For Elementary Education minors only)

- History 203, 204; Geography 201, 311
- Anthropology 201
- Political Science 250 or Economics 201
- Electives—15 credits under advisement in one of the following five fields: anthropology, geography, history, political science or sociology

Extended Minor 35 credits

- 20 credits from one of the social sciences or history
- 15 credits from two other social sciences or history
- A minimum of 15 of the 35 credits must be from upper-division work

A minimum GPA of 2.5 is required to secure approval of the major and extended minor for graduation.

COURSES IN SOCIAL STUDIES EDUCATION

- 400 PROJECTS AND PROBLEMS (2-5)
Prerequisite: permission of instructor. Specialized study under supervision.
- 425 SOCIAL SCIENCE FOR THE ELEMENTARY SCHOOL (3)
Prerequisite: Psych 316 (or 352). The development of social science concepts and skills in the elementary program.
- 426 SOCIAL STUDIES FOR THE SECONDARY SCHOOL (3)
Structures, materials and strategies for teaching social studies and history at the junior and senior high school levels.
- 430 CURRENT ISSUES FOR THE ELEMENTARY SOCIAL STUDIES CLASSROOM (3)
A course designed to identify resources and methods for integrating current social issues into the content areas of social studies with special emphasis on the value process and the influence of the television media on values and behavior.

- 435 USING COMMUNITY RESOURCES IN SOCIAL STUDIES (3)
Prerequisite: junior standing. Course explores community resources and the incorporation of the resources in the curriculum.
- 445a CURRENT TRENDS IN SOCIAL STUDIES EDUCATION: STRUCTURES, MODELS AND STRATEGIES (1-5)
Prerequisite: permission of instructor.
- 445b CURRENT TRENDS IN SOCIAL STUDIES EDUCATION: LAW FOCUSED TEACHING AND CURRICULUM (1-5)
Prerequisite: permission of instructor. Course to enable teachers to teach about criminal justice system, police, juvenile justice, consumer law, due process, etc. Course will provide teachers with tested classroom procedures, substantive law and field experience with justice agencies.
- 500 PROJECTS, PROBLEMS AND RESEARCH (2-5)
Prerequisite: teaching experience and permission of instructor. Individually designed experiences to meet specific curricular and methodological situations.

VISUAL COMMUNICATION EDUCATION (VICOED)

The Bachelor of Science degree program in VICOED is designed to prepare graduates to enter industry as production, supervisory, or management personnel in the field of visual communication, and to prepare prospective teachers in the academic background necessary for curriculum development and instruction in secondary schools which are planning on carrying forward programs in visual communication education. Early consultation with the director of VICOED, Dr. Ray A. Schwalm, is essential.

VICOED students will follow the usual general education sequence, but should take Mathematics 121 or 240 or Computer Science 110 in lieu of 151, and Chemistry 115 rather than 101. Physics 101 will normally be taken.

VICOED Concentration 110 credits

- Art 101, 270, 371, Art History 240
- English 201 or 202 or Journalism 104
- Speech 340
- Technology 210, 240, 340, 341, 362, 379, 444, 447, 448
- Take 19 credits from two of the following areas; maximum of 9-10 from one area:
 - Industrial Graphics (Technology)
 - Graphic Arts (Technology)
 - Photography (Technology)
 - Graphic Design (Art and Technology)
 - Professional Writing (English and Journalism)
 - Educational Media (Education and Technology)
- Chemistry 208, 209
- Accounting 251; Business Administration 330; Economics 338

- Math 122 or Computer Science 110
- Anthropology 431
- Psychology 320
- 11 credits selected from art, economics, business, sociology/anthropology, psychology, mathematics, physics, chemistry, educational psychology

See departmental sections of the catalog for descriptions of these courses.

Teacher Education Program

Students enrolling in VICOED for teacher certification must complete the requirements for the Bachelor of Science program described above, satisfy the professional education requirements, and complete Technology 493 (4) prior to student teaching. This program might require up to two (2) extra quarters to complete.

WOMEN'S STUDIES

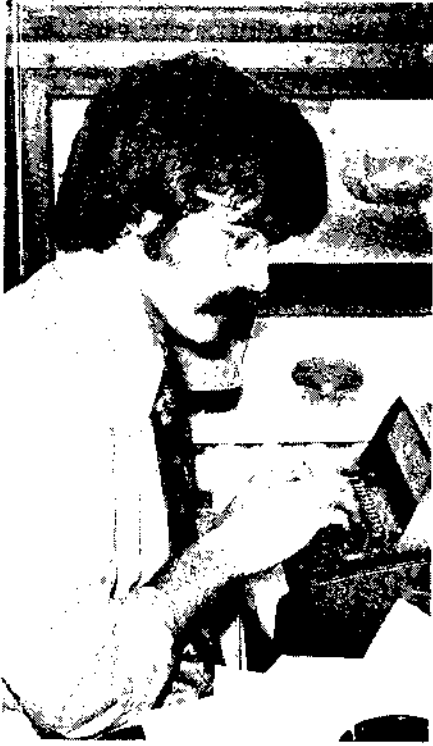
The Women's Studies Program is designed to offer both men and women an orientation in the particularly female aspects of the entire educational process. It consists of three core courses, each of which exists within the appropriate department in order to make clear the academic relevance of the course and to place the study of the problems of women in the larger context of the study of the problems of society.

The 18 hours of electives which complete the minor will be selected according to the individual needs of each student from the other relevant courses being taught in the various departments.

Dr. Meredith Cary, English Department, is the adviser for this minor.

Minor 30 credits

- Anth 353 Sex Roles in Culture (4)
- English 338b Sex Roles in Literature (4)
- Psychology 319 Personality Theories and Sex Roles (4)
- Electives under advisement; particularly recommended are the following:
 - Business Administration 426
 - Economics 388
 - English 217
 - English 338a
 - History 490b
 - Political Science 345
 - English 365 or Anth 365



JOURNALISM

College of Arts and Sciences

The Journalism Department offers a theoretical and practical communications major and minor in a liberal arts setting. Students gain practical experience on Western's prize-winning student publications, and majors additionally take field internships with newspapers, broadcast stations or with other professional organizations.

Courses emphasize the gathering, writing and ethical presentation of news, developing skills and general knowledge that serve more than communications careers. Students are challenged to master a broad range of other disciplines, and to learn to write with accuracy, precision and clarity. By enriching their language skills and understanding of news processes, they learn to communicate swiftly and lucidly in a changing world.

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.

JOURNALISM FACULTY

- R. E. STANNARD, JR. (1969) Chairman.
Associate Professor. BA, University of Washington; MA, Cornell University.
- LYLE E. HARRIS (1976) Assistant Professor. BA, MA, University of Montana.
- GERSON F. MILLER (1967) Professor. AB, University of California, Berkeley; MA, Pennsylvania State University.
- PETE STEFFENS (1972) Associate Professor. BA, Harvard; BA, MA, Balliol College, Oxford.

BACHELOR OF ARTS

Major 61 credits

☐ Journalism 104 or 406

- Journalism 160, 204, 304, 340, 350, 404, 470, 480
- Three journalism staff courses from list (a) and three additional courses from list (a) or (b):
 - (a) Journalism 111, 112, 113, 211, 212, 213, 311, 312, 313, 411, 412, 413
 - (b) Journalism 121, 122, 123, 221, 222, 223, 321, 322, 323, 421, 422, 423
 (May be waived by substitution of equivalent professional experience.)
- Journalism 430
- Choice of Journalism 310, 330, 400, 405, 440, 460
- 15 credits in related academic areas selected under advisement of journalism faculty

Minor 25 credits

Applies to both Bachelor of Arts and Bachelor of Arts in Education.

- Journalism 104 or 406
- Journalism 160, 204, 304, 340, 350
- Three staff courses, or equivalent professional experience, from:
 - (a) Journalism 111, 112, 113, 211, 212, 213, 311, 312, 313, 411, 412, 413
 - (b) Journalism 121, 122, 123, 221, 222, 223, 321, 322, 323, 421, 422, 423
 At least two courses of the above are to be selected from list (a)

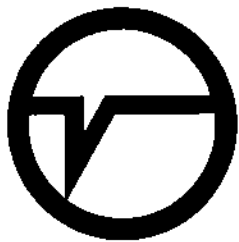
COURSES IN JOURNALISM

- 104 NEWSWRITING (3)**
Prerequisite: ability to type 25 or more words per minute. Writing for newspapers; news elements and values, gathering news, structure and style of news stories; covering speeches and meetings, interviewing.
- 111, 112, 113 NEWSPAPER STAFF (2 ea)**
Prerequisites: freshman standing; Journ 104. Participation on the staff of the college newspaper; critiques in news reporting, writing, editing and make-up.
- 121, 122, 123 PERIODICAL STAFF (2 ea)**
Prerequisites: freshman standing; Journ 104. Workshop in periodical design, layout and production, training in the creative combination of type, headline, photographs and other illustrative material, text and caption writing; creative layout techniques; publication production; participation on the college periodical.
- 160 CURRENT EVENTS AND THE MEDIA (3)**
Discussions and interpretation of news in context of interaction with media; for potential journalists and others interested in current events.
- 204 COPY EDITING (3)**
Prerequisite: Journ 104. Newspaper copy desk operations: editing, headline writing; dummyming; page make-up; editorial writing.
- 211, 212, 213 NEWSPAPER STAFF (2 ea)**
Prerequisites: sophomore standing; Journ 104. Participation on the staff of the college newspaper; critiques in news reporting, writing, editing and make-up.
- 221, 222, 223 PERIODICAL STAFF (2 ea)**
Prerequisites: sophomore standing; Journ 104. Workshop in periodical design, layout and production; training in the creative combination of type, headline, photographs and other illustrative material, text and caption writing; creative layout techniques; publication production; participation on the college periodical.
- 237 FOREIGN STUDIES (2-5)**
See Journalism 437.
- 304 REPORTING (3)**
Prerequisite: Journ 104. Interviewing, news coverage, including campus sources, and standard community news sources, with emphasis on social agencies; writing for newspapers.
- 310 ADVERTISING IN THE MASS MEDIA (3)**
Role of mass media advertising in the economy and advertising methods; research, planning and preparation of the message, selection of media, budgets and schedules; social performance of advertisers.
- 311, 312, 313 NEWSPAPER STAFF (2 ea)**
Prerequisites: junior standing; Journ 104. Participation on the staff of the college newspaper; critiques in news reporting, writing, editing and make-up.
- 321, 322, 323 PERIODICAL STAFF (2 ea)**
Prerequisites: junior standing; Journ 104. Workshop in periodical design, layout and production, training in the creative combination of type, headline, photographs and other illustrative material, text and caption writing; creative layout techniques; publication production; participation on the college periodical.
- 330 PHOTOJOURNALISM (3)**
Prerequisite: Journ 104. Basics of news photography; use of equipment; news picture planning and coverage; composing effective news pictures; essentials of processing for publication; photographic notes and files; picture editing and layout; professional ethics and the law.
- 337 FOREIGN STUDIES (2-5)**
See Journalism 437.
- 340 THE PRESS AND SOCIETY (3)**
Historical backgrounds of journalism, tracing the rise of mass communications in the Western World with social, economic and political trends.
- 350 LAW OF THE PRESS (4)**
Rights and legal restrictions on freedom of the press; constitutional guarantees, libel, contempt, privacy; other restrictions.
- 390 THE NEWS PROCESS (4)**
Critical examination of the news process by visiting news media professionals. Repeatable to 12 credits. May be taken only once in fulfillment of General College Requirements.
- 400 SPECIAL PROBLEMS IN JOURNALISM (1-3)**
Prerequisite: permission of instructor. Individual studies and projects exploring specialized aspects of journalism.
- 404 FEATURE WRITING (3)**
Prerequisite: Journ 304. In-depth article writing; development of ideas, gathering of materials and writing; special attention to individual interests; exploration of free-lance writing markets.

Journalism

- 405 **PRINCIPLES OF PUBLIC RELATIONS (3)**
Prerequisite: Journ 104 or English 101. Methods, tools and media used in planning and developing company, community and institutional public relations programs. Publicity and promotional techniques: copy preparation, news releases, publications, relations with the press.
- 406 **JOURNALISM FOR PUBLICATION ADVISERS (3)**
Methods and techniques in teaching public school journalism; news elements, values and writing for newspapers. Not open to students who have taken Journ 104.
- 411, 412, 413 **NEWSPAPER STAFF (2 ea)**
Prerequisites: senior standing; Journ 104. Participation on the staff of the college newspaper; critiques in news reporting, writing, editing and make-up.
- 421, 422, 423 **PERIODICAL STAFF (2 ea)**
Prerequisites: senior standing; Journ 104. Workshop course in periodical design, layout and production, training in the creative combination of type, headline, photographs and other illustrative material, text and caption writing; creative layout techniques; publication production; participation on the college periodical.
- 430 **FIELD INTERNSHIPS (1-6)**
Supervised field work on newspapers, magazines, radio and TV stations, public relations and advertising agencies; for journalism majors between junior and senior years; usually during summer session, S/U grading.
- 431, 432, 433 **TELEVISION NEWS STAFF (2 ea)**
Prerequisites: Journ 304, Speech 240. Workshop course in gathering and preparing news for television; training in planning, organizing and carrying out news coverage; weighing visual and non-visual news values; writing news scripts which integrate words, sound and pictures; critiques on the completed work; participation on the staff of the college television news program. Concurrent enrollment in Speech 442 recommended.
- 437, 337, 237 **FOREIGN STUDIES (2-5)**
A study of journalistic topics particularly appropriate to the location of the course offering. These courses are offered only through the WWSA Study Abroad Program. Contact Foreign Study Office, Miller Hall 353.
- 440 **PRESS AND WORLD AFFAIRS (3)**
The international role and operations of the press; factors affecting the free flow of news; major world news systems.
- 460 **LITERATURE OF JOURNALISM (3)**
Prerequisite: Journ 160. Readings and critical evaluation of literature by and about journalists.
- 470 **MASS COMMUNICATIONS THEORY AND RESEARCH (3)**
Introduction to theory and research in mass communications; review of pertinent literature; limited field studies.
- 480 **CURRENT PROBLEMS (3)**
Prerequisite: Journ 350. The modern function of the press in a democratic society; virtues and shortcomings of the press in current trends; management structure of media and its interaction with journalistic ethics.
- 490 **THE NEWS PROFESSIONAL (5)**
Prerequisite: permission of the Journalism Program. In-depth studies with visiting news media professionals in their specialties, including individual and/or team projects. Repeatable to 15 credits.





MATHEMATICS & COMPUTER SCIENCE

College of Arts and Sciences

The Department of Mathematics and Computer Science offers a wide variety of majors and minors. Degrees are offered in mathematics, mathematics education, and computer science. There are also joint degrees in mathematics and computer science, biology and mathematics, chemistry and mathematics, economics and mathematics, geology and mathematics, and physics and mathematics. On the graduate level there are three degrees available: Master of Arts, Master of Science and Master of Education.

The need for persons with quantitative skills is increasing dramatically as the world grows more complex. Mathematicians and computer scientists have employment opportunities in business, industry, government and teaching. Persons planning careers in almost any field will find their opportunities for interesting and challenging careers enhanced by the study of mathematics and computer science. The degrees are intended to

prepare students for just such careers. It is generally the case that the person who develops his quantitative skills increases his ability to attack the more complex problems of society. Advances in science, technology, the social sciences, business, industry and government become more and more dependent upon precise analysis and the extraction of information from large quantities of data. Environmental problems, for example, require careful analysis by persons (or teams of persons) with skills in mathematics, statistics and computer science as well as biology, geology, physics and many other fields.

MATHEMATICS

The unique blending in mathematics of man's rational, creative and aesthetic impulses has attracted the intellectually curious for over 2,000 years. The body of mathematical knowledge is a magnificent achievement: it is now growing more

Mathematics & Computer Science

rapidly than ever before. The habits of systematic and creative thought developed in the study of mathematics are recognized as invaluable in most areas of human endeavor. Western's Bachelor of Science major in mathematics is designed to introduce the student to the excitement of mathematical ideas; it allows the maximum possible freedom to explore those areas of mathematics that the student finds most interesting.

The department has a sound program in mathematics with a proven record of preparing students for successful graduate study at the very best universities in the nation. There are sequences of courses in calculus, advanced calculus, linear algebra, differential equations, number theory, abstract algebra, topology, geometry, differential geometry, statistics, complex analysis and mathematical analysis. Students of mathematics who do not go on to graduate school are well prepared for industrial or governmental jobs if they have some exposure to computer science or one of the natural, social or applied sciences.

APPLIED MATHEMATICS

Many of the greatest achievements in mathematics were inspired by problems in the natural sciences; today mathematics has wide application in both the natural and social sciences. Applied mathematics provides a broad arena for the intellectual and creative impulses of man. The Bachelor of Science major in mathematics allows enough freedom in choice of courses so that students may prepare themselves well as applied mathematicians. Many students interested in applications of mathematics will want to pursue a joint major with some other department.

All of the sequences listed earlier are available to students of applied mathematics. The courses or sequences in calculus, linear algebra, differential equations and statistics provide the central core of studies in applied mathematics. The courses or sequences in probability theory, numerical analysis and optimization theory (mathematical programming) are of great interest; the student of applied mathematics should study at least the basics of computer science. The student who contemplates graduate study in applied analysis will benefit from the study of abstract algebra and mathematical analysis.

COMPUTER SCIENCE

Computer science is a steadily growing area of human endeavor; its impact is felt in nearly every part of our society. It provides great opportunity for employment in business, industry, government and teaching. It also provides a wealth of problems of intellectual interest. As in mathematics, it is an area in which systematic habits of thought may be

combined with rational and creative impulse to produce achievements of both aesthetical and practical significance.

The curriculum in computer science is broad and well-balanced. In addition to the usual introductory courses, there is a sequence in assembler language programming and courses in automata theory, advanced features of programming languages, computer organization, data structures, compiler design and implementation, operating systems, data-based management, and simulation and modeling. There are also sequences in numerical analysis and mathematical programming. The department offers both a computer science degree and a joint mathematics-computer science degree. The Computer Center has an IBM 360 model 40 with large scale auxiliary storage and an IBM 7090. There are a number of minicomputers on campus, among which is an Interdata 70 available to Computer Science students for hands-on experience. There are also facilities for interactive computing and for computer graphics.

Computer science students are encouraged to gain considerable competence in a field in which computer application plays a role (for example, accounting, biology, business administration, environmental sciences, geology, geography, or geophysics). Employment opportunities are enhanced by such a course of study. Students interested in entering business, industry, or government generally complete the computer science major. Those interested in scientific computing or graduate study of computer science generally complete the joint mathematics-computer science major.

The minor in computer science is of great value in improving the quantitative skills of students pursuing other majors. The person who completes such a minor will find that he is able to communicate with computer scientists. Such a skill is quite valuable today.

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 teach on the secondary level should complete at least one course in algebra and one course in geometry on the upper division level (these courses are almost always regarded as necessary for recommendation of competency to teach on the secondary level). Secondary teachers will find that calculus, linear algebra, number theory, statistics, probability and the course in mappings and continuity are of considerable value to them. Successful completion of these courses provides a good part of the

training necessary for technical expertise in the classroom.

The elementary concentration should contain as wide a variety of courses as possible. Breadth of experience is important so that the teacher may 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 481.

ACADEMIC PLACEMENT

Students who need advice in registering for the proper course in mathematics or computer science are urged to seek help at the departmental office in Bond Hall 202.

Freshmen

Both calculus and linear algebra are required for most majors offered by the department, including combined majors and majors in computer science. At least one of them is a prerequisite for almost every other course in mathematics. The prospective major should therefore normally take both in his freshman year. He is prepared to take Math 124 and Math 201 if he has completed the following courses in high school:

- (a) one and one-half years of algebra,
- (b) one year of geometry,
- (c) one-half year of trigonometry, and
- (d) one additional year of work including the real number system, equations, inequalities, and functions and their graphs.

Math 121 is offered for students needing a knowledge of the topics listed in (d). The student who is deficient in (a) should enroll in Math 103; students deficient in (c) should enroll in Math 104. These courses, if needed, should be completed before enrolling in Math 124 or 201.

Mathematics and computer science majors are strongly urged to plan their program of studies in collaboration with their departmental adviser. Those students pursuing a joint major should have an adviser in each of the departments involved. A departmental adviser may be obtained upon request in Bond Hall 202.

Freshmen are allowed to begin study in computer science with the course CS 210 (Programming I) if they have had four years of high school mathematics including an introduction to calculus. Those without such preparation should complete Math 124 (Calculus and Analytic Geometry)

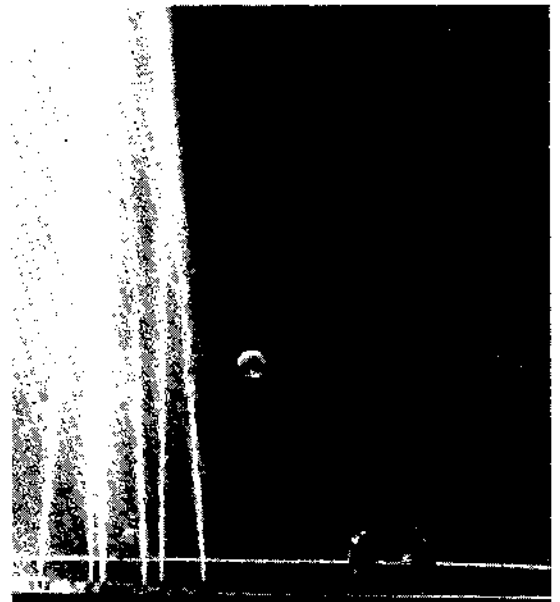
before registering for CS 210. The latter group of students may, if they wish, take CS 107 (Programming in BASIC) and/or CS 110 (Introduction to Programming) before completing Math 124. Students with fewer than three years of high school mathematics should seek advice in the department office before registering for computer science courses. It is not essential that computer science majors complete more than CS 210 in their first year of study.

Transfer Students

Mathematics majors who expect to enter Western from a two-year college should complete a sequence in calculus unless they plan to take that sequence at Western. Courses in linear algebra, differential equations, probability theory, and mathematical statistics are also good preparation. Those transfer students who have completed a calculus sequence but have not studied linear algebra are usually advised to register for Math 301 rather than Math 201 and Math 202.

Computer science majors who expect to enter Western from a two-year college should complete as many mathematics courses and computer science courses as possible. They should, if possible, learn to program in a higher level language such as Fortran, PL/I or Algol. Those students who have followed a program of studies centered around data processing are welcome to the program. They will find, however, that certain of their courses will not apply toward a degree in computer science.

Transfer students must complete at this institution a minimum of nine upper division credits for a major in the department or five upper division credits for a minor in the department.



INFORMATION

Those interested in study of computer science or mathematics are welcome to write, telephone, or visit the Chairman of the Department of Mathematics and Computer Science, Western Washington State College, Bellingham, WA 98225. Telephone: (206) 676-3785.

MATHEMATICS AND COMPUTER SCIENCE FACULTY

- ROBIN W. CHANEY (1969) Chairman. Professor. BA, PhD, Ohio State University.
- DONALD R. CHALICE (1967) Associate Professor. BA, University of Wisconsin; MA, PhD, Northwestern University.
- KEITH CRASWELL (1966) Associate Professor. BS, MS, PhD, University of Washington.
- JAMES E. DUEMMELE (1966) Associate Professor. BA, MA, PhD, Ohio State University.
- ALBERT J. FRODERBERG (1968) Associate Professor. BS, MS, PhD, University of Washington.
- SARA JEANNE GAMLEN (1967) Associate Professor. BA, Linfield College; MA, Bowling Green State University; PhD, Washington State University.
- NEIL R. GRAY (1964) Associate Professor. BA, San Francisco State College; MS, PhD, University of Washington.
- JOSEPH HASHISAKI (1962) Professor. BA, Montana State University; MA, PhD, University of Illinois.
- FRANCIS H. HILDEBRAND (1968) Associate Professor. BS, Kent State University; MS, University of Illinois; PhD, Michigan State.
- JAMES L. HILDEBRAND (1952) Associate Professor. BA, MA, North Texas State University.
- FRED M. IVES (1971) Associate Professor. BA, MS, PhD, Washington State University.
- ROBERT I. JEWETT (1970) Associate Professor. BS, California Institute of Technology; MS, PhD, University of Oregon.
- ROBERT M. KAUFFMAN (1967) Professor. BA, The University of the South; MS, PhD, Louisiana State University.
- RICHARD G. LEVIN (1967) Associate Professor. BS, University of Pennsylvania; PhD, University of California, Davis.
- NORMAN F. LINDQUIST (1967) Associate Professor. BA, Linfield College; PhD, Oregon State University.
- LARRY DEAN MENNINGA (1970) Associate Professor. BA, University of Iowa; MA, PhD, University of Washington.
- THOMAS T. READ (1967) Professor. BA, Oberlin College; MA, PhD, Yale University.
- *JOHN R. REAY (1963) Professor. BA, Pacific Lutheran University; MA, University of Idaho; PhD, University of Washington.
- PAUL T. RYGG (1962) Professor. BA, Montana State University; MS, PhD, Iowa State University.
- DONOVAN F. SANDERSON (1963) Associate Professor. BS, MS, PhD, Iowa State University.
- GEORGE E. WITTER (1955) Associate Professor. BA, MA, Miami University.
- JOHN W. WOLL (1968) Professor. BS, Haverford College; PhD, Princeton University.

BACHELOR OF ARTS IN EDUCATION

Major Elementary 45 credits

- Math 121, 124, 125
- Math 281, 481
- Not less than 12 credits numbered 300 or above
- Electives under departmental advisement

Major Secondary 45 credits

- Math 124, 125
- Both Math 201 and 202; or, both Math 126 and 301
- Math 483
- Not less than 15 credits in approved courses numbered 300 or above

Minor 24-30 credits

- Math 124, 125
- Math 201 and 202, or 126 and 301
- Math 483
- Not less than 3 courses numbered 300 or above

Combined Major Concentration

See the Chemistry Department section for Mathematics-Chemistry major. See the Physics/Astronomy Department section for the Physics-Mathematics major.

Teaching Competence

Recommendation for teaching competence normally requires completion of the appropriate major with a minimum grade point average of 2.20.

Qualification for teaching competence for junior high (grades 6-9) school level mathematics may be obtained as above, or by completing with a minimum grade point average of 2.20, an augmented minor which includes Math 124, 125, 126, 201 and 202, or 301, 241 or 305, 360 or 460, 307 or 401, 483.

BACHELOR OF SCIENCE

Major—Mathematics

65 credits plus Supporting Courses

- Math 124, 125, 126, 224
- Math 301 or both 201 and 202
- Not fewer than 20 credits in approved mathematics or mathematics-computer science courses numbered 400 or above except Math 481, 483, 494, and 495

*On Sabbatical Leave 1977-78

- Electives under departmental advisement
- Supporting courses: one approved sequence in an area of application. Some acceptable sequences are: Physics 231, 331, 332; Econ 201, 202, 301, 302; Psych 306, 307, 311; Computer Science 310, 311, 312; Chem 121, 122, 123
- Language competency in French, German or Russian is strongly recommended for those students who may go to graduate school

Minor—Mathematics 30 credits

(Not available to computer science majors.)

- Math 124, 125, 126, 224
- Math 301 or both 201 and 202
- Electives under departmental advisement

Major—Computer Science

71-73 credits plus Supporting Courses

- Computer Science 123, 210, 211, 217, 301, 310, 311, 312, 410, 440
- Math-Computer Science 335 and 375
- Mathematics 124, 125, 126
- Mathematics 301 or both 201 and 202
- 12 additional credits in 400 level computer science courses, which may include a maximum of six credits in Computer Science 400 or math-computer science courses
- At least 12 credits in an area of application. Acceptable sequences are: Accounting 251, 252, 350, 351; Physics 231, 331, 332; Econ 202, Bus Admin 375, 376; Chem 121, 122, 123; Geology 211, 212, and one 300 level course; Biology 120, 210, and one of 310, 311, 312, 321, 323, 325; Psych 306, 307, 311

Minor—Computer Science 26 credits

(Not available to mathematics majors.)

- Computer Science 210, 211, 301
- Mathematics 124 or 220 or 251
- 9 additional credits in computer science at the upper-division level

Major—Mathematics-Computer Science

86 credits plus Supporting Courses

- Math 124, 125, 126, 224; either 301 or both 201 and 202; 312, 331; 332 or 430; 401 or 404
- Four of the courses Math-Computer Science 335, 435, 436, 375, 475, 476
- Computer Science 210, 310, 311
- 21 additional credits in computer science and mathematics as advised
- Supporting courses: at least 12 credits in an area of application. Acceptable sequences are: Accounting 251, 252, 350, 351; Physics 231,

331, 332; Econ 202, Bus Admin 375, 376; Chem 121, 122, 123; Geol 211, 212, and one 300 level course; Biol 120, 210, and one of 310, 311, 312, 321, 323, 325; Psych 306, 307, 311

Combined Majors

The Mathematics and Computer Science Department cooperates with other departments in offering combined (or double) majors for students wishing to achieve considerable depth in both areas.

Biology-Mathematics: See Biology Department section for details.

Economics-Mathematics: See Economics Department section for details.

Physics-Mathematics: See Physics Department section for details.

Physics-Mathematics Special Honors Concentration: See Physics Department section for details.

Geology-Mathematics: See Geology Department section for details.

DEPARTMENTAL HONORS

Arts and Sciences

In order to graduate with "honors in mathematics," a student must complete Math 331, 401, 402, 403, 423, 424, 425; 18 additional upper-division or graduate credits in mathematics as advised by the Honors Committee, at least 12 credits of which must be at the 400 or 500 level; attain a 3.5 grade average in the courses taken for the above, and a 3.0 grade average on all college courses; complete an Arts and Sciences major in mathematics together with supporting courses; complete two non-departmental Honors colloquia; be recommended by the departmental Honors Committee and the Honors Board.

In special cases, with the approval of the departmental Honors Committee, the student may elect to write a senior thesis.

Teacher Education

In order to graduate with "honors in mathematics," a student must complete Math 312, 401, 425, two quarters of geometry, and additional upper-division credits in mathematics as advised by the Honors Committee to total 30 credits; attain a 3.5 grade average in the above courses and a 3.0 grade average in all college courses; complete the requirements for a teacher education major in mathematics; complete two non-departmental Honors colloquia; be recommended by the departmental Honors Committee and the Honors Board.

Mathematics & Computer Science

In special cases, with the approval of the departmental Honors Committee, the student may elect to write a senior thesis.

GRADUATE STUDY

For concentrations in mathematics leading to Master of Education, Master of Arts, or Master of Science degrees, see the *Graduate Bulletin*.

COURSES IN MATHEMATICS

(Courses in Mathematics-Computer Science and in Computer Science are listed after the listing in Mathematics.)

- 103 ALGEBRA (5)
Prerequisite: clearance of mathematics proficiency entrance requirement. Intended for students who have had one year of high school mathematics. Polynomials, first and second degree equations and inequalities, graphs, quotients of polynomials, roots and radicals, an introduction to the quadratic formula. Basic computational algebraic skills are emphasized. Students who have a reasonably good knowledge of two and one-half years of high school mathematics should take Math 121 rather than Math 103. Cannot be counted toward majors or minors in mathematics or computer science.
- 104 TRIGONOMETRY (3)
Prerequisite: Math 103 or two years of high school mathematics; basic computational algebraic skills are a prerequisite. Angles and angle measurement, trigonometric functions, identities, trigonometric equations, inverse trigonometric functions. Students with a reasonably good knowledge of high school trigonometry should not take Math 104. Cannot be counted toward majors or minors in mathematics or computer science.
- 121 COLLEGE ALGEBRA (5)
Prerequisites: basic algebraic skills comparable to those described under Math 103; students should either have trigonometric skills comparable to those described under Math 104 or else they should register for Math 104 concurrently. Complex numbers; arithmetic and geometric progressions; quadratic equations and the quadratic formula; the binomial theorem; exponential and logarithm functions; introduction to conic sections (circles, parabolas, hyperbolas, and ellipses). Accurate graphing is emphasized throughout the course. Students with four years of high school mathematics are usually well advised to skip Math 121 and go directly to a more advanced course.
- 124 CALCULUS AND ANALYTIC GEOMETRY (5)
Prerequisites: knowledge of topics listed under Math 104 and 121. Those students with little or no knowledge of trigonometry must take Math 104 while (or before) taking Math 124. Coordinate geometry for the plane, differentiation, rules for computing derivatives, application of derivatives, anti-derivatives, and an introduction to the computation of areas.
- 125 CALCULUS AND ANALYTIC GEOMETRY (5)
Prerequisite: Math 124. The definite integral and applications to area, volume, rectilinear motion, etc. Derivatives of inverse trigonometric functions, logarithms, exponential functions and hyperbolic functions. Advanced techniques of integration. The analytic geometry of circles, ellipses, hyperbolas and parabolas.
- 126 CALCULUS AND ANALYTIC GEOMETRY (5)
Prerequisite: Math 125. Polar coordinates, infinite series, vectors in two and three dimensions, and derivatives of vector-valued functions.
- 151 INTRODUCTION TO MATHEMATICS (3)
Prerequisite: clearance of mathematics entrance test. Not open to students with credit in Math 121. Introduction to the methods of thought and logic in mathematics. A cultural approach to mathematics which emphasizes historical aspects of mathematics and the influence of mathematics upon modern society. Students interested in studying a single area of mathematics in detail should consider substituting a course from Math 121, 124, 201, 220, 240, 241.
- 190 WORKSHOP FOR HIGH SCHOOL JUNIORS (5)
Prerequisite: intended for, but not restricted to, students who have completed the junior year but not the senior year of high school; high school students must submit a letter of recommendation from a high school counselor or mathematics teacher. Topics in number theory, combinatorics, probability, and computer science. The computer programs will be such as to aid in solution of the mathematical problems. Class meets for three to four hours per day during four weeks of the summer session. Not open to students with college-level credit in mathematics. Offered in summer quarter only. S/U grading only.
- 201, 202 INTRODUCTION TO LINEAR ALGEBRA (3 ea)
Prerequisite: Math 121 or 220 or 251; 201 prerequisite to 202. An elementary treatment of finite dimensional vector spaces, linear transformations, linear equations and matrices. The combination of this sequence and the calculus sequence gives the student adequate background for many upper-division mathematics courses. Well-prepared students should begin this sequence as freshmen.
- 220 SURVEY OF CALCULUS (5)
Prerequisite: Math 103 or equivalent. This course is intended to introduce students to the basic notions and computational techniques of calculus for a limited range of functions. Students who complete the course will find they understand many articles or lectures in which calculus is used, but they will not have sufficient knowledge to use calculus in unfamiliar situations as a problem-solving tool in their disciplines. Those who wish to use calculus actively should consider the sequence Math 124, 125, 126.
- 224 MULTIVARIATE CALCULUS (5)
Prerequisite: Math 126. Vector functions and their derivatives, partial differentiation, and multiple integration, surface and line integrals, and Green's theorem.
- 240 INTRODUCTION TO STATISTICS (3)
Prerequisite: Math 103 or equivalent. This course deals with the nature of statistical reasoning, descriptive statistics, ideas of probability and measurement, sampling distributions, the binomial and normal distributions, confidence intervals, and the testing of statistical hypotheses.
- 241 INTRODUCTION TO PROBABILITY (3)
Prerequisite: Math 103 or 121. Introduction to probability with applications.
- 250 ALGEBRA WITH APPLICATIONS TO ECONOMICS AND BUSINESS (4)
Prerequisite: Math 103 or qualifying examination (to be given on the first day of class). Systems of linear equations and systems of linear inequalities; matrix notation for linear systems; logarithms; geometric series, and mathematics of finance.

Mathematics & Computer Science

- 251 **CALCULUS AND PROBABILITY WITH APPLICATIONS TO ECONOMICS AND BUSINESS (5)**
 Prerequisite: Math 250. Differential calculus, including the chain, product, and quotient rules and derivatives of exponential and logarithmic functions; antiderivatives and the area beneath a curve; elementary probability including conditional probability, Bayes theorem, probability laws, density functions, normal distributions, the normal probability table, mean, and standard deviation.
- 252 **STATISTICS AND COMPUTER PROGRAMMING WITH APPLICATIONS TO ECONOMICS AND BUSINESS (5)**
 Prerequisite: Math 251. An elementary programming language such as BASIC is introduced and used in solving problems in statistics. The topics in statistics include ratios and frequency distributions, measures of dispersion, various probability distributions, decision making, statistical inference, and hypothesis testing.
- 281 **THEORY OF ARITHMETIC (4)**
 Prerequisite: Math 103 or successful completion of an entrance test based on the material in Math 103; not open to students with credit in Math 301 or 307. Systems of numeration, sets, relations and number systems, and integration of these concepts.
- 301 **VECTORS AND MATRIX ALGEBRA (4)**
 Prerequisite: Math 125. Not open to students with credit in Math 202. Linear spaces, subspaces, dimension, linear transformations, matrices of transformations, and determinants. More rapidly paced than 201, 202, requires more mathematical maturity.
- 305 **NUMBER THEORY (4)**
 Prerequisite: Math 202 or 125. The properties of integers, Euclid's algorithm, Diophantine equations, congruences, continued fractions and residues.
- 307 **THE ALGEBRAIC FOUNDATION OF MATHEMATICS (4)**
 Prerequisite: Math 125. Not open to students with credit in Math 401. Algebraic systems; the concepts of order and completeness; the natural numbers and construction of rational and real numbers.
- 312 **MAPPINGS AND CONTINUITY (4)**
 Prerequisites: Math 126 and one of 202, 301 or 305. Open and closed sets in the line and plane; sequences; definitions and elementary properties of continuous functions, Bolzano-Weierstrass theorem and applications. The student is expected to develop some competence in proving basic theorems.
- 331, 332 **ORDINARY DIFFERENTIAL EQUATIONS (4 ea)**
 Prerequisites: Math 126; students should also have (or take concurrently) either Math 202 or Math 301; 331 is prerequisite to 332. An introductory course in ordinary differential equations and applications, including topics selected from first order differential equations and systems, higher order differential equations, series and numerical solutions, Laplace transforms, special functions, Fourier series, Sturm-Liouville theory, comparison theorems, stability theory, and applications of these concepts to scientific problems.
- 341, 342 **STATISTICAL METHODS (4 ea)**
 Prerequisites: Math 121, 241, Computer Science 110 or 210; 341 prerequisite to 342. Elementary course in statistical methodology with emphasis on point estimates and confidence interval estimation, hypothesis testing, and analysis of variance.
- 360 **EUCLIDEAN AND NON-EUCLIDEAN GEOMETRY (3)**
 Prerequisite: Math 202 or 125. Metric development of Euclidean geometry, and consideration of non-Euclidean geometrics.
- 380a **THE WHOLE NUMBER SYSTEM (3)**
 Discussion of the content of elementary school mathematics, with special emphasis on the mathematics taught in grades K-3. Discussion of methods of instruction as well. Intended mainly for elementary school teachers. Offered only through the Center for Continuing Education.
- 380b **THE RATIONAL NUMBER SYSTEM IN ELEMENTARY INSTRUCTION I (3)**
 For certified teachers only. Discussion of the content of elementary school mathematics, with special emphasis on the mathematics taught in grades 2-6. Discussion of methods of instruction as well. Intended mainly for elementary school teachers. Offered only through the Center for Continuing Education.
- 380c **THE RATIONAL NUMBER SYSTEM IN ELEMENTARY INSTRUCTION II (3)**
 Prerequisite: Math 380b. For certified teachers only. Discussion of the content of school mathematics, with special emphasis on the mathematics taught in grades 4-8. Discussion of methods of instruction as well. Intended mainly for teachers of grades K-8. Offered only through the Center for Continuing Education.
- 381 **MATHEMATICS FOR ELEMENTARY TEACHERS (3)**
 Prerequisite: one year of teaching or Math 281. Informal geometry; measurement; data collection and organization.
- 400 **SPECIAL PROBLEMS (1-5)**
 An opportunity for individual study under departmental supervision.
- 401, 402, 403 **INTRODUCTION TO ABSTRACT ALGEBRA I, II, III (4 ea)**
 Prerequisites: Math 202 or 301, plus junior standing. Each course prerequisite to the next. Vector spaces, linear transformations, matrices and determinants, introduction to algebraic structure, groups, rings, integral domains, fields and field extensions.
- 404 **LINEAR ALGEBRA (4)**
 Prerequisites: Math 202 or 301, plus junior standing. Vector spaces, subspaces, linear independence, span, bases, dimension, linear transformations, the matrix of a linear transformation with respect to two given bases, rank and nullity of linear transformations, systems of linear equations, determinants, Cramer's rule, inner products, the transpose of a linear transformation, characteristic polynomials, eigenvalues, eigenvectors, reduction of a symmetric linear transformation to diagonal form by means of an orthogonal change of basis.
- 412 **METRIC TOPOLOGY (4)**
 Prerequisite: Math 312. Metric spaces and metric topology; product metrics; uniform equivalence and homeomorphism; compactness and other topological properties.
- 417 **SPECIAL TOPICS**
 417a Topics in Algebra (4)
 417b Topics in Analysis (4)
 417c Topics in Geometry (4)
 417d Topics in Topology (4)
- 423 **ADVANCED CALCULUS (4)**
 Prerequisites: Math 224 and 312. This course treats in detail topics of advanced calculus that are of basic importance in many applications, both scientific and theoretical, of the calculus. These topics include uniform convergence, the Riemann integral, properties of continuous functions, and the theory of the derivative. Normally offered fall quarter.

Mathematics & Computer Science

- 424, 425 MATHEMATICAL ANALYSIS (4 ea)
Prerequisites: Math 423 and Math 301 or 202. This course uses advanced calculus to study subjects arising from modern science. Topics vary but have included in different years advanced ordinary differential equations (stability theory and its applications) and the partial differential equations of mathematical physics. Normally offered winter and spring quarters.
- 430 FOURIER SERIES AND PARTIAL DIFFERENTIAL EQUATIONS (4)
Prerequisites: Math 331 and 224. Math 430 is an introduction to the Fourier method for solving boundary value problems arising in physics and engineering. Fourier series, the wave equations, the heat equation, the Fourier transform, and related topics.
- 431 INTRODUCTION TO COMPLEX VARIABLES (4)
Prerequisite: Math 331 or 423. Differentiation and integration of complex-valued functions; Cauchy integral theorem; calculations of residues.
- 441, 442, 443 MATHEMATICAL STATISTICS (4 ea)
Prerequisites: Math 224; either 202 or 301; each course prerequisite to the next. Probability theory; development of distributions; generating functions; averages, moments, regression, correlation, variance, and statistical inference.
- 460 MODERN GEOMETRY (4)
Prerequisite: Math 202 or 301. General geometric structures, topics from affine and projective geometries. Offered in alternate years. To be offered in 1978-79.
- 461 MODERN GEOMETRY (4)
Prerequisite: Math 401. Bilinear functions, orthogonal groups, general symmetries. Offered in alternate years. To be offered in 1978-79.
- 481 MATHEMATICS IN GRADES 1 THROUGH 8 (4)
Prerequisite: Math 281. The teaching of mathematics in terms of objectives and methods of presentation.
- 483 MATHEMATICS IN THE SECONDARY SCHOOL (3)
Prerequisites: upper-division courses in algebra and geometry. Mathematics content of advanced high school courses from the teacher's viewpoint; the major experimental programs.
- 494 EXPERIENCES IN THE MATHEMATICS LABORATORY (3)
Prerequisite: one year of teaching experience and currently teaching mathematics. Each participant develops materials and experiences for use in the mathematics laboratory approach in his own teaching.
- 495a DEVELOPING THE MATHEMATICAL LABORATORY ENVIRONMENT: PRIMARY (4)
Prerequisite: one year of teaching experience. Techniques for preparing and implementing the laboratory approach in elementary school mathematics programs at the primary level.
- 495b DEVELOPING THE MATHEMATICAL LABORATORY ENVIRONMENT: INTERMEDIATE (4)
Prerequisite: one year of teaching experience. Techniques for preparing and implementing the laboratory approach in elementary school mathematics programs at the intermediate level.
- 495c DEVELOPING THE MATHEMATICS LABORATORY ENVIRONMENT: JR-SR HIGH LOW ACHIEVERS (4)
Prerequisite: one year of teaching experience. Techniques for preparing and implementing the laboratory approach for junior and senior high low achievers in mathematics.
- 497e LABORATORY EXPERIENCES WITH METRIC MEASUREMENT (1)
Prerequisite: one year of teaching experience and currently teaching mathematics in grades K-6. Teaching the metric system through the laboratory approach.
- 499 MATHEMATICAL SEMINAR (1-3)
- 500 SPECIAL PROBLEMS (1-5)
Prerequisites: advanced standing and permission of instructor.
- 501, 502, 503 ADVANCED ABSTRACT ALGEBRA (3 ea)
Prerequisite: Math 403 or permission of instructor; to be taken in sequence. Topics selected from theory of fields and Galois theory, theory of rings and ideals, representation theory and groups with operators.
- 505, 506 THEORY OF NUMBERS (3 ea)
Prerequisite: Math 305. Properties of natural numbers, divisibility, congruences, quadratic reciprocity, diophantine equations, distribution of primes, algebraic numbers, continued fractions.
- 517, 518, 519 TOPOLOGY (3 ea)
Prerequisite: Math 412 or 423; to be taken in sequence. Topological spaces, metric spaces, connectedness, compactness, product and quotient spaces, function spaces, fundamental group.
- 520, 521, 522 ANALYSIS (3 ea)
Prerequisite: Math 425. Lebesgue integration, Banach and Hilbert spaces, and applications to classical analysis.
- 531, 532, 533 COMPLEX VARIABLES (3 ea)
Prerequisite: Math 423 or equivalent; to be taken in sequence. Complex numbers as a field; function theory including analytic functions; exponential and logarithmic functions; derivatives; linear and bilinear transformations; the complex integral calculus; Cauchy-Goursat Theorem; Cauchy Integral Formula; power series, residues and poles; conformal mappings.
- 550 MATHEMATICAL LOGIC (3)
Prerequisite: graduate status in mathematics. Topics selected from formal symbolic logic and algebraic logic.
- 551 SET THEORY (3)
Prerequisite: Math 550. Topics selected from set theory with special attention to applications in other areas of mathematics.
- 560, 561, 562 DIFFERENTIAL GEOMETRY (3 ea)
Prerequisites: Math 404 and 425 or permission of instructor. Differentiable manifolds; differential forms; the exterior derivative and exterior algebra. Integration of differential forms. Differentiable maps, Frobenius theorem, Riemannian metrics, affine connections and related topics.
- 590 SEMINAR ON SPECIAL METHODS IN MATHEMATICS EDUCATION (1)
Prerequisite: admission to the Master-Teacher program. The mathematics curriculum in the public schools.
- 599 MATHEMATICS SEMINAR (1-3)
- 690 THESIS (variable credit)
- 699 MATHEMATICS SEMINAR (1-3)
Prerequisite: graduate course in the area of the seminar. Fields expected to be covered are analysis, algebra, topology and geometry.

**COURSES IN MATHEMATICS-
COMPUTER SCIENCE**

The courses listed below require background in both mathematics and computer science. The problems attacked in these courses cannot be solved without fruitful wedding of knowledge from both areas.

- 335 **LINEAR PROGRAMMING (4)**
Prerequisites: Math 202 or 301; Computer Science 210 or 211. Linear and quadratic programming; applications to game theory and to allocation and transportation problems.
- 375 **NUMERICAL METHODS (4)**
Prerequisites: Computer Science 210 or 211; Math 126. Elementary discussion of error, solution of non-linear algebraic equations, polynomial interpolation, least squares approximation, numerical quadrature, and numerical differentiation.
- 435 **MATHEMATICAL PROGRAMMING (4)**
Prerequisites: Math 126 and Math-Computer Science 335. Non-linear 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.
- 436 **MATHEMATICAL PROGRAMMING (4)**
Prerequisites: Math-Computer Science 435 and some knowledge of probability theory (for example, Math 241 or Math 341 or Math 441). Linear, non-linear, and dynamic programming problems in which statistical considerations form an essential part of the problem.
- 475, 476 **NUMERICAL ANALYSIS (4 ea)**
Prerequisites: Math-Computer Science 375; Math 202 or 301, Math 331. 475 prerequisite to 476. Numerical solution of ordinary differential equations, solution of systems of linear equations, calculation of eigenvalues and eigenvectors, numerical solution of partial differential equations.

COURSES IN COMPUTER SCIENCE*

- 107 **PROGRAMMING IN BASIC (3)**
Prerequisite: Math 103 or equivalent. An introduction to computer programming and problem solving using the computer language BASIC. This course is intended primarily for students who wish to use BASIC in applications to social and physical science. Students who may wish to major or minor in mathematics or computer science should usually begin with CS 210 (or perhaps with CS 110 if so advised) rather than with CS 107.

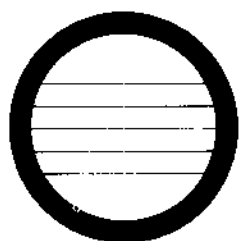
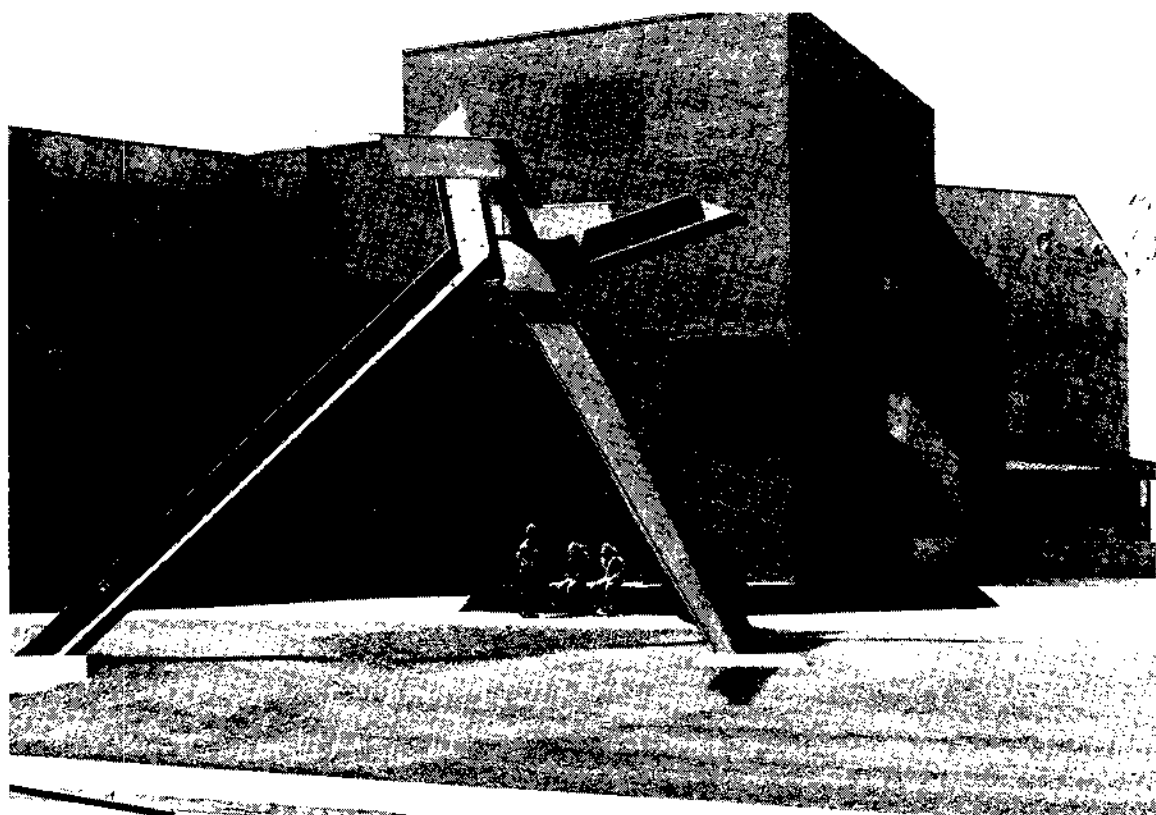
*The facilities of the Computer Center, including an IBM 360/40 with large scale disk capacity and telecommunications capability, are available to qualified students free of charge for instruction in computer techniques, for research, and for general education in computer applications. Computer Science 107 or 110 or 210 provides basic instruction in the use of the computer.

- 110 **INTRODUCTION TO PROGRAMMING (4)**
Prerequisite: Math 103 or equivalent. Basic concepts of computer programming. Design and construction of computer programs to solve problems. Emphasis on application, including data manipulation and use of prepared programs. Not open to students who have credit in Computer Science 210. Persons who intend to take upper-division computer science courses should take CS 210.
- 123 **ALGOL (1)**
Prerequisite: Computer Science 110 or 210. Programming using the ALGOL language. Satisfactory/Unsatisfactory grading.
- 124 **FORTRAN (1)**
Prerequisite: Computer Science 110 or 210. Programming using the FORTRAN language. Satisfactory/Unsatisfactory grading.
- 210 **PROGRAMMING I (4)**
Prerequisite: Math 124 or 201 or 220 or 251. Intended for students who plan to take upper division courses in computer science. Design and implementation of algorithms. Includes overview of machine level programming and operating systems. Emphasis on good programming practices which are transferable between programming languages.
- 211 **PROGRAMMING II (4)**
Prerequisite: Computer Science 210. Design and implementation of large programs. Emphasis on programming techniques which contribute to efficiency, legibility, generality, and correctness of programs.
- 217 **COBOL (3)**
Prerequisite: Computer Science 110 or 210. COBOL programming with emphasis on business applications using auxiliary storage.
- 301 **INTRODUCTION TO DISCRETE STRUCTURES (4)**
Prerequisite: Computer Science 110 or 210. Basic algebraic structures; Boolean algebra and propositional logic; elementary graph theory; applications to computer science.
- 310, 311, 312 **COMPUTERS AND ASSEMBLER LANGUAGE PROGRAMMING (3 ea)**
Prerequisite: Computer Science 110 or 210; to be taken in sequence. Computer structure and system organization. Machine language, instruction execution, addressing techniques and digital representation of data; structure of assemblers; program segmentation and linkage; input/output and interrupts; operating system services; laboratory computer experience.
- 350 **DATABASE MANAGEMENT (3)**
Prerequisite: CS 211 or 217. A theoretical introduction in which students are not required to write computer programs. (See CS 351.) Basic concepts, storage structures, data description and management languages, techniques of organization and access, security and integrity of databases. The course includes case studies and case problems.
- 351 **APPLIED DATABASE MANAGEMENT (2)**
Prerequisites: CS 211 or CS 217; in addition the student must register for CS 350 concurrently. Computer programming for problems in database management.
- 391 **INTRODUCTION TO CAI PROGRAMMING (5)**
Prerequisite: one year of teaching experience. The rudiments of Computer-Assisted Instruction (CAI) programming including the two languages BASIC and PILOT; also the editing of CAI materials by making alterations to existing programs. Over half of the terminal time will be devoted to production of, and testing of, instructional computer programs in the student's field of interest. (Normally offered summers only.)

Mathematics & Computer Science

- 400 SPECIAL PROBLEMS (1-5)
An opportunity for individual study under departmental supervision.
- 401 INTRODUCTION TO AUTOMATA THEORY (4)
Prerequisite: Computer Science 301. Finite- and infinite-state machines, recursive functions, effective computability, the halting problem and other unsolvable problems.
- 410 PROGRAMMING LANGUAGES (4)
Prerequisites: Computer Science 123, 211, 217 and 311. Introduction to the structure of programming languages; syntax and semantics; properties of algorithmic languages; special purpose languages.
- 417 SEMINAR IN SPECIAL TOPICS (4)
- 420 COMPUTER ORGANIZATION (4)
Prerequisites: Computer Science 211, 301 and 311. Basic digital circuits, Boolean algebra and combinatorial logic, digital arithmetic; input-output facilities, system organization, reliability; features for multiprogramming, multiprocessing, and real-time systems; alternate organizations.
- 429 COMPUTER MODELING AND SIMULATION (4)
Prerequisites: a college level course in statistics; a college level course in calculus; Computer Science 110 or 210; and any one of BA 302, 403, Geog 430, Hux 435, Pol Sci 427, Psych 307, Soc 421, or 15 upper division credits in mathematics and/or computer science. Basic concepts of dynamic modelling and system simulation, design and methodology of simulation models, model validation, simulation languages, application to decision making.
- 440 DATA STRUCTURES (4)
Prerequisites: Computer Science 211, 301 and 311. Basic concepts of data; storage management and operations on structures; searching and sorting; data structures in programming languages.
- 450 COMPILER DESIGN AND IMPLEMENTATION (4)
Prerequisite: Computer Science 440; 410 may be taken concurrently. Lexical and syntactical analysis; code generation and optimization; implementation of compilers and interpreters.
- 460 OPERATING SYSTEMS (4)
Prerequisites: Computer Science 420, 440. Batch processing; multi-programming and multiprocessing; time-sharing; input-output; storage allocations; file system design and management.
- 483 COMPUTING FOR TEACHERS (5)
Prerequisite: student teaching experience, other acceptable teaching experience in mathematics or science. Introduction to basic computer organization and programming and their applications to problems suitable for secondary students. Selected topics from assembly language programming, information retrieval, pattern recognition, systems modeling, and operations research. Not for mathematics/computer science majors. (Normally offered summers only.)
- 496 SEMINAR (1)
Prerequisite: one 400-level computer science or mathematics-computer science course, or concurrent. Survey of field applications. Field trips, investigation of hardware and software products including mini- and micro-computers and their applications.





MUSIC

College of Fine and Performing Arts

At Western we believe music is doing - performing, composing, searching for new insights and sharing the joy of the art with others. An education in music is the result of interaction among students and between students and faculty actively pursuing musical endeavors.

Here at Western Washington State College we believe in the individualization of music education and the need for ongoing counseling for all music majors. The College takes pride in the quality of instruction and the fact that Western offers a *balanced* program in choral, instrumental, private instruction and academic music aimed toward professional competency in teaching and performance.

Explorations in early, traditional, contemporary, avant-garde, jazz and electronic music exist in the various course activities and degree plans with the emphasis always on dealing directly with the art through performance, composition and analysis.

Two undergraduate professional degree programs are offered by the Department of Music: The B.A. with majors in music performance, music history and literature, music composition and jazz is offered for those who wish to continue advanced musical study in graduate school, enter private studio teaching or launch a professional career in music. The B.A. in Education with majors in choral music, instrumental music or elementary classroom music is offered for those who plan to teach in the public schools. State certification to teach is received concurrently with the granting of the degree.

Job placement in public school music teaching has remained excellent in spite of the general overall decline in the availability of teaching positions. While most other professional degree holders continue in graduate programs those who do not usually secure positions in studio teaching, church music, professional performance, and allied fields such as radio, television and the music industry.

Music

The Music Department provides individual advisement and program planning for all music majors. This takes place officially during the registration period at the beginning of each academic quarter. We also provide individual advisement at any time prior to entrance by appointment. Many students prefer to spend a day on campus in the spring prior to transfer at which time they may receive advisement and visit the various departmental performance groups and classes and meet with instructors. Write or phone for an appointment if interested.

Many music courses and activities are open to majors and non-majors. Students may select from among College Choir, Concert Choir, Chamber Choirs, Symphonic Band, Wind Ensemble, Jazz Workshop, Jazz Ensembles, College Symphony Orchestra, Chamber Music, Opera, and Collegium Musicum.

MUSIC FACULTY

- PHILIP AGER (1965) Chairman.
Associate Professor. BA in Ed, Western Washington State College; MA, University of Washington.
- AMERICOLE BIASINI (1970) Associate Professor. BS, MS, New York State University.
- WILLIAM D. COLE (1970) Professor. BS, University of Illinois; MA, University of Washington.
- BARTON FRANK (1969) Professor. Curtis Institute of Music; BM, MM, Tulsa University.
- JEROME GLASS (1955) Associate Professor. BS, New York University; MMus, University of Southern California.
- ROD D. HILL (1975) Associate Professor. AB, Wisconsin State University; MA, Indiana University.
- EDWIN M. LABOUNTY (1968) Associate Professor. AB, Yankton College; BM, MM, MusD, Indiana University.
- C. BRUCE PULLAN (1975) Associate Professor. BA, MA, Cambridge; Diploma of Ed, Oxford.
- SCOTT D. REEVES (1976) Lecturer. BM, Indiana University.
- CARLA S. RUTCHMANN (1975) Assistant Professor. BA, University of Northern Colorado; MM, Arizona State University; PhD, University of Washington.
- ROBERT L. SCANDRETTI (1967) Associate Professor. BA, Seattle Pacific College; MA, PhD, University of Washington.
- DAVID B. SCHAUB (1953) Professor. BA, MusB, Lawrence College; MA, Harvard University; PhD, University of California, Berkeley.
- PAUL H. STONER (1961) Associate Professor. BM, University of Kansas; MA, University of Iowa; DMA, University of Southern California.
- MARY TEREY-SMITH (1967) Associate Professor. BA, Liszt Academy of Music, Budapest; MA, University of Vermont; PhD, University of Rochester.
- EUGENE S. ZORO (1969) Associate Professor. BM, MM, Eastman School of Music of the University of Rochester.

AFFILIATE MUSIC FACULTY

Philip Boltin, viola
Nicholas Bussard, oboe
Sharon Cragun, flute
Susan Erickson, voice
Mark Eubanks, bassoon
David Forbes, horn
Ronald Johnson, percussion

Serge Kardalian, violin
Carroll Lehman, voice
Phyllis McFall, flute
George Oram, trumpet
H. Dennis Smith, trombone
James Weaver, Jr., horn
Nancy Bussard, professional accompanist
Lucille Oster, professional accompanist

MUSIC PERFORMANCE

All students majoring in music must be members of a major performing group each quarter of residence except those quarters in which music education majors are enrolled in student teaching. Those groups designated as major performing groups are the Symphonic Band, Wind Ensemble, College Choir, Concert Choir and Symphony Orchestra. The participation requirement must be met through the student's major instrument or voice. Pianists, organists and guitarists may elect to participate in any of the major performing groups for which they are qualified. Pianists majoring in music performance may, under advisement, substitute up to 12 credits in chamber music for this requirement. Jazz majors may substitute up to 12 credits in chamber jazz ensembles under advisement. Performance groups may be repeated for credit.

APPLIED PERFORMANCE PROFICIENCY

All entering students in applied instrumental or vocal private study will be expected to demonstrate their proficiency before a faculty committee to assist in their proper placement in the program. This placement audition will be arranged for all incoming students during the first week of the quarter in which the student enters the program. Freshmen 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 denied continued applied instruction. All applied private music study is included in the student's regular fees. Applied music may be repeated for credit.

Minimum applied performance proficiency levels required for entrance to private applied music study are as follows:

PIANO- Classic, Romantic and contemporary literature of the difficulty of Bach, "Short Preludes" and "Inventions." Clementi, Haydn, Mozart and Beethoven "Sonatinas;" Bartok, "Mikrokosmos," Books 3 and 4. Major and harmonic minor scales, hands together four octaves. It is expected that three pieces be prepared from different style periods and that at least one be played from memory. Sight reading will also be a part of the audition.

VOICE—Two songs of contrasting styles demonstrating potential beauty and body of tone, innate sensitivity to pitch and rhythm.

ORGAN—Ability to play, at the piano, a Bach "Chorale" and a Bach "Two-Part Invention."

VIOLIN—Mazas, "Special Studies," opus 36, Book 1, edited by Hermann or Saenger; Handel, Corelli, Vivaldi or other sonatas. Solo pieces through five positions; scales two octaves (major and melodic minor).

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—Completion of the Lee, "Method" Book 1 or Dotzauer "Studies" Book 1 or Grutzmacher "Studies" Book 1; short pieces or a sonata of the difficulty of Vivaldi or Marcello. Scales through the fourth position.

GUITAR—One piece from the classical guitar repertoire of the applicant's choice and one study from the collection "Twenty Etudes" by Fernando Sor, edited by Andres Segovia.

DOUBLE BASS—Simandl, "New Method for the Double Bass," Book 1. Scales through half, first and second positions.

FLUTE—Any Handel sonata (except the E minor Sonata) [select at least one sonata]. Any etude from Anderson Etude 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; Bach "Gavotte in D Major;" Grieg "Solvejg's Song" [select any two]. Major and minor scales and arpeggios through four sharps and four flats (two octaves when possible).

CLARINET—Any two etudes from "Thirty-two Etudes 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 of four selected studies from the Weissenborn Complete Method. Any two studies from the Weissenborn Advanced studies. Mozart "Concerto in Bb" (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 Bb." Major and minor scales and arpeggios through four sharps and four flats (two octaves when possible).

FRENCH HORN—Two or three etudes 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—Any characteristic study from Arban Complete Method. Haydn "Concerto" (first and second movements), or Vidal "Concertino" or Thome "Fantasy in Eb" or Corelli "Sonat VIII," edited by Fitzgerald. Major and minor scales through four sharps and four flats (two octaves when possible).

TROMBONE (TENOR AND BASS TROMBONE) AND EUPHONIUM—Two or three studies from "Melodious Etudes" by Rochut, Book 1 (bass trombone should play one octave lower where feasible). Studies one through ten of the Blashevich Flef Studies. Five selected studies from the Arban Method, Book I. 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 Weckselblatt. First ten studies from the "Studies for BBb Tuba" by Tyrell. Major and minor scales through four sharps and four flats (two octaves when possible).

PERCUSSION—Percussionist should have performance ability on mallet instruments as well as snare drum, even though one or the other might be somewhat minimal. *For snare drum:* single and double rolls from open to closed (slow through fast). Additional traditional rudiments should include flam, flam accents no. 1 and no. 2, flam tap, grad, ruff, paradiddle, double paradiddle, five, seven, nine and eleven stroke rolls. Any two studies selected from pages 6 through 23 from "Modern School for Snare Drum." *For mallets:* play any selection of own choice which demonstrates performer's proficiency. Play major and minor scales and arpeggios through four sharps and four flats (at least two octaves), play chromatic scale the entire range of the keyboard—up and down.

SAXOPHONE—Two or three studies from "Twenty-five Exercises for Saxophone" by Klose. Solos selected from "Cantilena" by Benson, "Chant Corse" by Tomasi, or "Concerto" by Larsen. Major and minor scales through four sharps and four flats (two octaves when possible).

THEORY AND MUSIC HISTORY PLACEMENT EXAMINATION — TRANSFERS

All students transferring to Western with less than two years of college theory will be assigned to the

Music

theory course that succeeds the last course taken. (Students may repeat theory courses previously taken elsewhere.) All students transferring to Western who have completed two years of college theory will write prior to enrollment a Theory Placement Examination; this examination may be written at Western or it may be written and examined at any college or community college (administered by professors at that college) prior to transferring to Western upon individual request. This examination is an evaluative instrument; the results of this examination are advisory only. All credit received in theory 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.

The Music History Placement Examination is no longer administered as an entering transfer requirement. Transfer students will be expected to meet the junior-level music history requirement as stated in the catalog. Music history courses numbered at the 100 and 200 level will not be accepted in lieu of the requirement. Students may challenge any of the required music history courses (341, 342, 343, 344) through the institutional course challenge procedure.

CONCERT ATTENDANCE

All music majors are required to attend at least six approved concerts each quarter, with the exception of the quarters spent in supervised teaching, in order to complete their total departmental music program.



PIANO COMPETENCY

All music majors are required to pass a piano competency examination in order to complete this program. Students who enter as freshmen should take it by the end of their sophomore year. Transfer students should take the examination during their first quarter at Western; they must take it before completing their first full year at this college.

SCHOLARSHIPS

In addition to general college scholarships, several awards are available from off-campus music organizations. For further information, consult the Music Department.

PROGRAM ADVISEMENT

All undergraduate music majors are assigned to the departmental undergraduate program adviser for scheduling and program approval. Minor approval is secured from this adviser.

BACHELOR OF ARTS

Professional Programs 108 credits

Basic Core (required for all concentrations)
72 credits

- Musicianship: Music 131, 132, 133, 231, 232, 233
- Music History/Literature: Music 342, 343; Music 341 or 344
- Conducting: Music 307; Music 308 or 309
- Area Concentrations: Performance, Composition, Music History/Literature or Jazz (see area concentration requirements)
- Chamber Music
- Major performing group (pianists may substitute up to 12 credits in master classes/pedagogy/accompanying/chamber music under advisement)
- Concert attendance

Area Concentration—Performance 36 credits

- Entrance by performance audition—student must expect to achieve upper-division applied instruction by sophomore year
- Applied Music: on major instrument or voice, 30 credits
- Pedagogy/master classes (under advisement), 6 credits
- Successful completion of junior-senior recital

Area Concentration--Composition 36 credits

- Entrance by compositional accomplishment and interview—student must qualify for upper-division composition courses by junior year
- Courses in composition, 20 credits
- Applied music on major instrument or voice, 10 credits
- Music 331, 333, 6 credits
- Successful completion of a senior recital of original compositions

Area Concentration—Music History/Literature 36 credits

- Entrance by interview and distinguished accomplishment in musicianship and music history courses in basic core program
- Musical media courses (select three), 9 credits
- Music 331, 332, 333, 9 credits
- Applied music on major instrument or voice, 12 credits
- Music 444, 6 credits
- Successful completion of an undergraduate thesis

Area Concentration—Jazz 36 credits

- Entrance by performance audition to include: all major, dorian and mixolydian scales; sight reading; major seventh, minor seventh and dominant seventh arpeggios in all keys; improvisation in a basic jazz (e.g. blues)
- Music 250, 3 credits
- Jazz improvisation—Music 328, 329, 4 credits
- Jazz arranging—Music 428, 430, 6 credits
- Applied music on major instrument or voice, 11 credits
- Jazz ensembles: Music 229, 429, 425, 12 credits
- Successful completion of jazz recital demonstrating mastery in improvisation and writing/arranging

Jazz majors who play piano, guitar or electric bass may substitute up to 12 credits in jazz ensembles (Music 229, 425, 429) for the major performing group requirement. Jazz majors who play instruments other than those listed above may substitute up to 12 credits in jazz ensembles "under strict advisement."

Minor 28 credits

- Musicianship: Music 131, 132, 133, 231, 232
- Music History/Literature: one from Music 341, 342, 343, 344
- Applied Music: major performing instrument or voice, four quarters in courses numbered 211-216 or above—students will be expected to participate in a major performing group during each quarter of applied lessons

BACHELOR OF ARTS IN EDUCATION

Major 74 credits

This Specialist in Music Education concentration satisfies requirements for both a major and a minor.

- Musicianship: Music 131, 132, 133, 231, 232, 233
- Music History/Literature: Music 342, 343; Music 341 or 344
- Conducting: Music 307; Music 308 or 309
- Applied Music: on major instrument or voice each quarter in residence except quarters student teaching—minimum of five credits in courses numbered 311-316 or above
- Music 351 and 451 (elementary emphasis) or Music 462 and 463 (secondary emphasis)
- Pedagogy for instrumental specialists: Music 105, 106, 301, 302, six quarters of Music 209 plus two courses selected from Music 204, 205, 206, 207, 107. Pedagogy for choral and elementary specialists: Music 105, 106, 301, 204, 205. Vocal majors do not take Music 105, 106 and must add two credits to their music electives (see below)
- Music electives (under advisement) choral and elementary specialists are required to select seven additional music credits except that those who are vocal majors must select nine additional music credits (see Pedagogy above)
- Major performing group
- Concert attendance
- Successful completion of student teaching in music

Major Elementary
45 credits plus Performance Requirement

- Musicianship: Music 131, 132, 133, 231, 232
- Music History/Literature: Music 342, 343; 341 or 344
- Education: Music 351 (for Music 350) in Elementary Teaching minor; Music 451
- Methods: Music 105, 106, 107. Those with voice as major instrument, replace Music 105, 106, 107 with equal credits in music electives under advisement
- Applied Music: major performing instrument or voice, minimum 6 quarters, with a minimum of 3 credits numbered 311-316 or above
- Major performing group as stated above for all majors
- Concert attendance
- Music 233 recommended as an elective as it is prerequisite to graduate study

Music

Minor 28 credits

- Musicianship: Music 131, 132, 133, 231, 232
- Music History/Literature: one from Music 341, 342, 343, 344
- Methods: Music 105
- Applied Music: major performing instrument or voice, 3 quarters in courses numbered 211-216 or above—students will be expected to participate in a major performing group during each quarter of applied lessons

Teaching Competence

Recommendation for teaching competence in music normally requires completion of the major with a grade average of 2.5 or better and departmental approval.

Supervised Teaching

Students enrolling in the 74 credit major will complete a 16 credit supervised teaching assignment in secondary or elementary music; those enrolling in the 45 credit elementary major will complete supervised teaching in elementary music and in a general elementary assignment.

GRADUATE STUDY

For concentrations in music leading to the Master of Arts and Master of Education degrees, see the *Graduate Bulletin*.

COURSES IN MUSIC

- 105 CLASS VOICE AND PEDAGOGY (1)**
Prerequisite: open to music majors and minors only; each course prerequisite to the next. Tone production, song repertoire interpretation and pedagogy for non-voice majors.
- 106/107 CLASS VOICE AND SIGHTSINGING (1 ea)**
Prerequisite: open to music majors and minors only; each course prerequisite to the next. Continuing emphasis on content of Music 105 with additional emphasis on sight singing.
- 110 INTERDISCIPLINARY ART (5)**
For students planning interdisciplinary art majors and those wishing to broaden both their artistic knowledge and awareness. The course is team-taught: art, drama, music and creative writing. Emphasis will be given to the interconnecting aesthetic principles of all art forms. Also listed as Art 110, Theater/Dance 110.
- 128 INTRODUCTION TO MUSIC THEORY AND NOTATION (3)**
(Open to non-majors.) Basic components of music notation; major and minor scales, intervals, triads and keys.
- 129 INTRODUCTION TO MUSIC THEORY AND EAR-TRAINING (3)**
Prerequisite: Music 128. Continuation of Music 128 with added emphasis upon ear-training and writing skills.

- 130 INTRODUCTION TO MUSICIANSHIP (3)**
Prerequisite: Music 129. Continuation of Music 129 with expansion of harmonic vocabulary and emphasis upon practical applications.
- 131, 132, 133 MUSICIANSHIP I (4 ea)**
Each course prerequisite to the next. Sound sources and the nature of sound. Writing skills and use of the musical symbol: notation. Basic vocabulary of music. Formal, stylistic and historical concepts and principles from music literature: evolution of concepts, techniques and processes. The scale and melody, harmony, counterpoint; the score and the concepts of mensuration and instrumentation; the emergence of modality-tonality and resultant 20th century practices. Performance skills: rhythmic, melodic and harmonic drill, invention and dictation, keyboard skills, score reading and score construction; the impact of modern technology and cultural forces on expanding uses of non-traditional techniques, sound-sources and formal organization. Implementation through organic combination of three major activities: performance, composition and analysis. Introduction to form and forms.
- 140 THE ART OF LISTENING TO MUSIC (3)**
Non-technical basis for enjoyable listening to music; performance practices relating to symphony orchestras, instrumental ensembles, opera, choral groups, and solo performance.
- 201, 202, 203 INTERMEDIATE CLASS PIANO (1 ea)**
Each course prerequisite to the next. Functional techniques for utilizing the piano as a tool for musical study and preparation for piano competency examinations.
- 204 BRASS TECHNIQUES AND PEDAGOGY (1)**
Basic principles and techniques of playing and teaching brass instruments.
- 205 CLARINET TECHNIQUES AND PEDAGOGY (1)**
Basic principles and techniques of playing and teaching clarinet.
- 206 PERCUSSION TECHNIQUES AND PEDAGOGY (1)**
Basic principles and techniques of playing and teaching percussion instruments.
- 207 WOODWIND TECHNIQUES AND PEDAGOGY (1)**
Prerequisite: Music 205 or equivalent. Basic principles and techniques of playing and teaching flute, oboe, and bassoon.
- 209 INSTRUMENTAL LAB FOR SECONDARY INSTRUMENTS (1)**
Laboratory in comprehensive musicianship and instrumental pedagogy for all instruments. Performance on major and secondary instruments, conducting, developing teaching strategies with goals and objectives. May be repeated for credit.
- 211-216a,b,c,d INDIVIDUAL INSTRUCTION (1-4)**
Prerequisite: open to music majors and minors only; minimum applied performance audition. One-half hour private instruction for "a" courses, one credit; one hour instruction per week for "b,c,d" courses, two to four credits ("b,c,d" courses require permission of area coordinator).
211a,b,c,d Organ
212a,b,c,d Piano
213a,b,c,d Strings
214a,b,c,d Winds and Percussion
215a,b,c,d Voice
216a,b,c,d Classical Guitar
- 219 BEGINNING CLASS GUITAR (1)**
Strumming, chord progressions and guitar tablature reading for the beginning guitar player.



- 221 COLLEGE CHOIR (2)
Prerequisite: permission of instructor. Preparation and performance of major choral works and part-songs. Open to all students having the ability to sing mixed part-songs. May be repeated for credit.
- 223 SYMPHONIC BAND (2)
Open to all students with band experience. May be repeated for credit.
- 229 JAZZ WORKSHOP (2)
Prerequisite: by audition. Performance and interpretation of contemporary jazz in an ensemble situation. May be repeated for credit.
- 231, 232, 233 MUSICIANSHIP II (4 ea)
Prerequisite: Music 133; each course in this series prerequisite to the next. Sound sources and the nature of sound. Writing skills and use of the musical symbol; notation. Basic vocabulary of music. Formal, stylistic and historical concepts and principles from music literature: evolution of concepts, technics and processes. Performance skills: rhythmic, melodic and harmonic drill, invention and dictation, keyboard skills, score reading and score construction; the impact of modern technology and cultural forces on expanding uses of non-traditional technics, sound-sources and formal organization. Implementation through organic combination of three major activities: performance, composition and analysis. Advanced study of traditional forms and of new musical practices which deny older formal and aesthetic formulae in the making of music.
- 250 JAZZ: GENESIS AND EVOLUTION (3)
Open to all students. Personalities, styles and social/cultural influences on jazz from its beginning to the present day.
- 280 ELEMENTARY COMPOSITION (1-2)
Prerequisite: permission of instructor. Elementary craft of melodic, harmonic, rhythmic, instrumental and contrapuntal writing in traditional modes; participation in concomitant composition seminars. May be repeated for credit.
- 281 COMPOSITION IN POPULAR IDIOMS (1-2)
Prerequisite: permission of instructor, and Music 128. Creating of ballads, blues, combo charts and the making of tapes for demonstration. May be repeated for credit.
- 300 SPECIAL PROBLEMS (1-3)
Individual study under departmental supervision.
- 301, 302 STRING TECHNIQUE AND PEDAGOGY (1 ea)
Each course prerequisite to the next. Principles and techniques of playing and teaching string instruments.
- 307 BASIC CONDUCTING (3)
Prerequisite: Music 233. Music 307 prerequisite to 308 and 309. Basic conducting, conducting techniques, score reading and interpretive analysis.
- 308 INSTRUMENTAL CONDUCTING (3)
Prerequisite: Music 307. Advanced instrumental techniques, score reading, interpretive analysis and rehearsal techniques.
- 309 CHORAL CONDUCTING (3)
Prerequisite: Music 307. Advanced choral techniques, score reading, interpretive analysis and rehearsal techniques.
- 311-316a,b,c,d INDIVIDUAL INSTRUCTION (1-4)
Prerequisite: open to music majors and minors only upper-division examination. One-half hour private instruction for "a" courses, one credit; one hour instruction per week for "b,c,d" courses, two to four credits ("b,c,d" courses require permission of area coordinator).
- 311a,b,c,d Organ
312a,b,c,d Piano
313a,b,c,d Strings
314a,b,c,d Winds and Percussion
315a,b,c,d Voice
316a,b,c,d Classical Guitar
- 328 JAZZ IMPROVISATION I (2)
Prerequisite: open to all accepted jazz majors or Music 232 or permission of instructor. Study of basic chord changes, scales and patterns with improvisation based on these principles. Analysis of transcribed solos and study of jazz repertoire.
- 329 JAZZ IMPROVISATION II (2)
Prerequisite: Music 328. Study of extended chords, scales, patterns, bitonal and atonal improvisation with improvisation based on these principles. Analysis of transcribed solos and study of jazz repertoire.
- 331, 332, 333 COUNTERPOINT (3 ea)
Prerequisite: Music 233 prerequisite to 331 and 333; Music 331 prerequisite to Music 332. Vocal and instrumental counterpoint from the 16th through the 19th centuries in theory and practice.
- 337 STRING INSTRUMENT TECHNOLOGY (3)
History, construction, maintenance and repair of string instruments especially oriented to the needs of public school and studio teachers. Laboratory experience stressed and students must supply basic lab tools and materials. Summers only.
- 339 PIANO TECHNOLOGY (3)
Techniques, equipment and its use for the tuning and maintenance of pianos. Laboratory experience stressed. Students must supply basic laboratory tools. Summers only.
- 341 HISTORY OF MUSIC TO 1600 (4)
Prerequisite: Music 232. Main styles, forms, terminology and composers up to 1600. Individual research projects.
- 342 HISTORY OF MUSIC 1600-1750 (4)
Prerequisite: Music 232. Main styles, forms, terminology and composers from 1600-1750. Individual research projects.
- 343 HISTORY OF MUSIC 1750-1900 (4)
Prerequisite: Music 232. Main styles, forms, terminology and composers from 1750 to 1900. Individual research projects.
- 344 HISTORY OF MUSIC 1900 TO PRESENT (4)
Prerequisite: Music 232. Main styles, forms, terminology and composers from 1900 to present. Individual research projects.
- 350 MUSIC FOR ELEMENTARY TEACHERS (3)
For elementary classroom teachers, *not music majors*. The skills of singing, reading, writing, playing, and hearing music; techniques and materials used in the elementary grades.

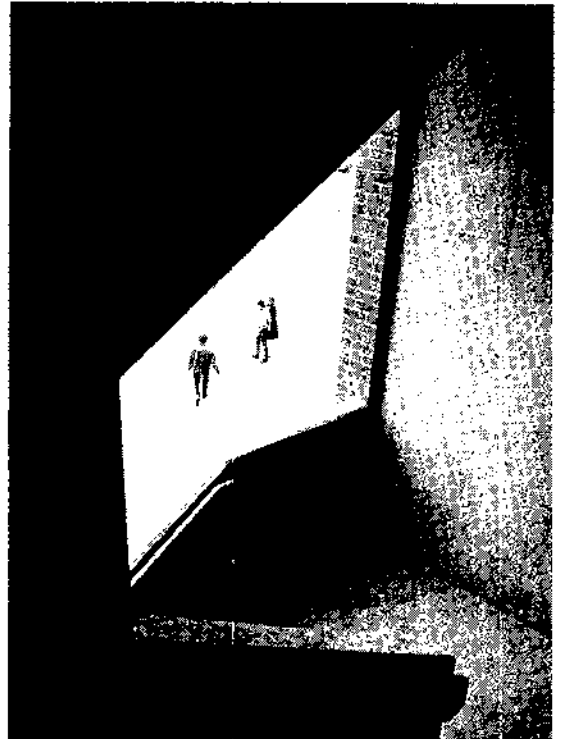
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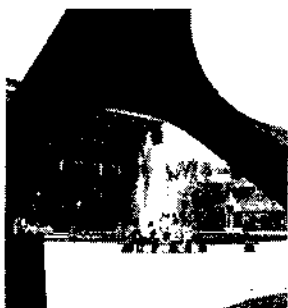
- 351 **ELEMENTARY MUSIC EDUCATION (3)**
Prerequisite: Music 232 and music major or minor. Teaching techniques, materials, and organization of the elementary music program; observations and laboratory experience.
- 380 **COMPOSITION (3)**
Prerequisite: Music 233 and successful completion of upper-division competency examination in composition. Writing pieces in part forms, variation form and sonata form for solo instruments and small ensembles; choral writing. May be repeated for credit.
- 400 **SPECIAL PROBLEMS (1-3)**
Individual study under departmental supervision.
- 402 **VOCAL PEDAGOGY (1)**
Prerequisite: 1 year of private voice study or permission of instructor. Vocal problems and their corrections; suitable collections of repertoire.
- 403 **VOCAL PEDAGOGY (1)**
Prerequisite: Music 402. Vocal problems and their corrections; suitable collections of repertoire.
- 404 **VOCAL PEDAGOGY (1)**
Prerequisite: Music 403. Vocal problems and their corrections; suitable collections of repertoire.
- 405 **VOCAL TECHNIQUE AND PEDAGOGY (2)**
Vocal problems and their corrections; suitable collections of repertoire for young soloists.
- 409 **CHORAL CONDUCTING PRACTICUM (1)**
Prerequisite: Music 307 and 309, and permission of instructor. Direction of student chamber ensemble under faculty supervision. Project includes rehearsal techniques, repertoire research and public performance. May be repeated for credit. Subject to availability of small vocal ensembles.
- 411-416a,b,c,d **INDIVIDUAL INSTRUCTION (1-4)**
Prerequisite: open to music majors and minors only; upper-division examination. One-half hour private instruction for "a" courses, one credit; one hour instruction per week for "b,c,d" courses, two to four credits ("b,c,d" courses require permission of area coordinator).
- 411a,b,c,d Organ
412a,b,c,d Piano
413a,b,c,d Strings
414a,b,c,d Winds and Percussion
415a,b,c,d Voice
416a,b,c,d Classical Guitar
- 417a **SYMPHONY ORCHESTRA (1)**
Prerequisite: permission of instructor. Rehearsal of standard symphonic repertoire leading to a public concert.
- 417b **SEMINAR IN CHORAL DIRECTION AND LITERATURE (6-12)**
Techniques of choral development, tradition, style, direction, repertoire research, conducting techniques, musical manuscripts and instrument collections in England. (Seminar participants may register for General Studies 310 and/or General Studies 311, with remaining credits taken in Music 417b.)
- 418 **PIANO PEDAGOGY (3)**
Open to all students taking applied piano (312 or higher). A study of the basic concepts involved in piano pedagogy with special emphasis on beginning study as well as advanced pedagogy involving technique, style and interpretation.
- 419 **PIANO PEDAGOGY (3)**
Open to all piano students and private teachers. A study of the basic concepts involved in piano pedagogy with special emphasis on beginning study as well as advanced pedagogy involving technique, style and interpretation. Summers only.
- 420 **ELECTRONIC MUSIC LABORATORY (4)**
Instruction in the use of the ARP Synthesizer, tape recording techniques, audio generators and modifiers for use in electronic music composition and performance. Equipment for teaching electronic music on a low budget. Group instruction and studio time in the use of this equipment. Open to non-majors. Summers only.
- 421 **CONCERT CHOIR (2)**
Prerequisite: by audition. Selected group experience, vocal ability, reading skill, musicianship and interest in serious choral music considered for membership.
- 422 **COLLEGE SYMPHONY ORCHESTRA (2)**
Prerequisite: by audition; open to all students who qualify.
- 423 **WIND ENSEMBLE (2)**
Prerequisite: by audition.
- 424 **OPERA PRODUCTION (1-2)**
Admission by audition. Preparation of opera scenes or a major musical production to include a public performance each quarter.
- 425 **CHAMBER JAZZ ENSEMBLE (2)**
Prerequisite: Music 328 or 428. Supervised small ensemble playing in jazz idioms stressing repertoire, improvisation and performance of written arrangements and compositions. One public performance per quarter required. May be repeated for credit.
- 426 **APPLIED CHAMBER MUSIC (2)**
Open to string, woodwind, piano, and voice performers by permission of instructor.
- 427a,b,c,d **CHAMBER VOCAL ENSEMBLES (2 ea)**
May be repeated for credit. Prerequisite: permission of instructor.
- 427a **Early Music Group**
Voices with early instruments performing music prior to 1600.
- 427b **Madrigal Ensemble**
Secular literature of 16th century.
- 427c **Workshop Choir**
Experimental vocal music including popular styles and jazz. Audition required.
- 427d **Chamber Choir**
Literature for small vocal ensemble without period restrictions. Opportunities for student direction.
- 428 **JAZZ ARRANGING I (3)**
Prerequisite: Music 233 or 328. Writing and arranging for small jazz ensembles. Analysis of small jazz ensemble styles.
- 429 **JAZZ ENSEMBLES (2)**
Prerequisite: by audition. Advanced performance and interpretation of contemporary jazz in an ensemble situation; recent developments in the idiom; performance of student compositions and arrangements.
- 430 **JAZZ ARRANGING II (3)**
Prerequisite: Music 428. Writing and arranging for large jazz ensembles. Analysis of large jazz ensemble style.
- 431 **ORCHESTRATION (3)**
Orchestration, with special reference to the needs of the instrumental director.
- 432 **ANALYTICAL TECHNIQUES: 20th CENTURY MUSICAL PRACTICES (3)**
Isolated phenomenon from various composers which have generated the major trends of the 20th century.

- 433 ANALYTICAL TECHNIQUES: LATE 19th CENTURY MUSICAL STYLES AND PRACTICES (4)
Techniques and practices unique to the late 19th century and their historical precedents in the works of Beethoven and Berlioz.
- 435 COMPOSITION (3)
Prerequisite: Music 380 for at least two quarters. Writing pieces of broad proportions for various media. May be repeated for credit.
- 440 COLLEGIUM MUSICUM (2)
Music literature studies from an analytical and performance viewpoint from early to pre-classic music culminating in a public performance each quarter.
- 443 HISTORY OF MUSICAL MEDIA (3 ea)
Prerequisite: Music 343. Development and literature of important musical media from their origin to the present.
- 443a Choral Music
443b Solo Song
443c Opera
443d Keyboard Music
443e Chamber Music
443f Symphonic Music
443g Concerto
443h Symphonic Music in the 20th Century
- 444, 445 NOTATION (3 ea)
Reading and interpreting early, contemporary or other extant systems.
- 445b CURRENT TRENDS IN MUSIC EDUCATION PRACTICES (2-3)
Techniques, activities and materials in a program of music development for grades K-6. May be repeated with different topics.
- 445c CURRENT TRENDS IN MUSIC EDUCATION PRACTICES (2-3)
Techniques, activities and materials in a program of music development for middle school and high school. May be repeated with different topics.
- 446 SEMINAR IN MUSIC HISTORY (3)
Prerequisite: Music 342-343. The student in consultation with the instructor will select one or more given musical developments for individual research. On-going results of this research will be shared with other members of the seminar. Focus of the course will vary from quarter to quarter. Course may be repeated for credit.
- 451 ADVANCED METHODS FOR ELEMENTARY SCHOOLS (3)
Prerequisite: Music 350 or 351. Introduction to Kodaly method; advanced teaching techniques, activities, materials and literature for elementary music teaching.
- 454 STRING TECHNIQUES AND MATERIALS (2)
Summers only.
- 455 BRASS AND PERCUSSION TECHNIQUES AND MATERIALS (2)
- 456 WOODWIND TECHNIQUES AND MATERIALS (2)
- 458 CHAMBER MUSIC READING (6)
Prerequisite: permission of instructor. Selected quartet and quintet music from the classic, romantic, impressionistic and modern periods with special emphasis on sight reading and style. Open to string, woodwind and brass players and pianists. Offered summers only.
- 459 COACHING SMALL ENSEMBLES (3)
Organization, coaching, and repertoire for small vocal and instrumental ensembles of high school students.
- 460 MARCHING BAND TECHNIQUES (3)
Marching band organization, parade marching, and show routine.
- 462 SECONDARY SCHOOL MUSIC ADMINISTRATION AND MUSIC IN GENERAL EDUCATION (3)
Philosophy, curriculum development, teaching strategies, materials, evaluation and administrative problems for secondary music teachers with emphasis on comprehensive musicianship as well as traditional methods and materials. Students will be expected to research, sing, compose, perform, improvise, conduct, instruct and react to live musical thought. Must be completed prior to student teaching.
- 463 SECONDARY SCHOOL MUSIC ADMINISTRATION AND MUSIC IN GENERAL EDUCATION (3)
Continuation of Music 462.
- 465 GENERAL MUSIC WORKSHOP (2)
Offered summers only. May be repeated for credit.
- 466 STRING TEACHER WORKSHOP (2)
Offered summers only. May be repeated for credit.
- 467 BIRCH BAY BAND MUSIC WORKSHOP (2)
Offered summers only. May be repeated for credit.
- 468 CHORAL MUSIC WORKSHOP (2)
Offered summers only. May be repeated for credit.
- 469 INSTITUTE FOR PIANO TEACHERS (2)
Focuses on piano pedagogy, musicianship, repertoire recital preparation and teaching materials with particular emphasis on the elementary and intermediate areas of piano advancement. Offered summers only.
- 470 BRASS SYMPOSIUM (3)
A concentrated one-week symposium dealing with brass pedagogy, teaching materials, and analysis of performance problems. Demonstration and discussion of the fundamentals of tone production, intonation, technical advancement and teaching materials will be conducted by nationally recognized performers as well as by members of Western's faculty. Offered summers only. May be repeated for credit.
- 470a WOODWIND SYMPOSIUM (2)
A concentrated one-week symposium dealing with woodwind pedagogy, teaching materials and analysis of performance problems. Demonstrations and discussion of tone production fundamentals, intonation problems, technical advancement and reed adjustment. Sessions covering all woodwind instruments will be conducted by noted guest consultants and teaching and ensemble materials will be covered. Offered summers only. May be repeated for credit.
- 470b PERCUSSION SYMPOSIUM (2)
A concentrated one-week symposium dealing with percussion pedagogy, teaching and ensemble materials and analysis of performance problems. Demonstration and discussion of percussion performance techniques. Sessions covering pitched and non-pitched instruments will be conducted by a noted guest consultant. Offered summers only. May be repeated for credit.
- 497 TEACHING JAZZ IMPROVISATION IN SECONDARY SCHOOLS (3)
Strategies, systems and materials for teaching jazz improvisation in secondary schools.
- 497q BRASS/WIND TECHNOLOGY (2)
Maintenance and repair of brass and woodwind instruments with emphasis on the practical needs of prospective teachers and teachers in the field. S/U grading only.

Music

- 500 SPECIAL PROJECTS (1-3)
Individual study under departmental supervision.
- 501 INSTRUMENTAL CONDUCTING AND REHEARSAL TECHNIQUES (3)
Advanced work in baton technique, interpretation, score preparation, and rehearsal technique.
- 502 CHORAL CONDUCTING AND LITERATURE (3)
Techniques in developing and conducting choral groups; score analysis of outstanding choral works; laboratory experience in conducting.
- 503 INTRODUCTION TO GRADUATE STUDY OF MUSIC (4)
Sources and availability of music, recordings, and literature about music throughout its entire history. Techniques of research, bibliography and formal writing about music. Students will be expected to prepare and defend a formal written project.
- 511 INDIVIDUAL INSTRUCTION — ADVANCED ORGAN (3)
Prerequisite: permission of the department. In addition to regularly scheduled private lessons, the student will be expected to participate in organ class performances and to hold a church-organist position throughout his residence for the degree.
- 512 INDIVIDUAL INSTRUCTION — ADVANCED PIANO (3)
Prerequisite: permission of the department. In addition to regularly scheduled private lessons, a public performance will be expected each quarter.
- 513 INDIVIDUAL INSTRUCTION — ADVANCED STRINGS (3)
Prerequisite: permission of the department. 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. Participation in a major performing group.
- 514 INDIVIDUAL INSTRUCTION — ADVANCED ORCHESTRAL WINDS AND PERCUSSION (3)
Prerequisite: permission of the department. 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. Required participation in a performance group.
- 515 INDIVIDUAL INSTRUCTION — ADVANCED VOICE (3)
Prerequisite: permission of the department. In addition to regularly scheduled private lessons, a public performance will be expected each quarter.
- 516, 517, 518 REPERTOIRE LITERATURE CLASS (1 ea)
Study and performance of solo and ensemble literature appropriate to the major instrument or voice; musical style, interpretation and technique.
- 521 TEACHING COMPREHENSIVE MUSICIANSHIP IN SECONDARY SCHOOLS (4)
Strategies, curricular design, materials, equipment, resources, philosophy for designing and teaching comprehensive musicianship in secondary schools.
- 531 ARRANGING (3)
Practical techniques in arranging and composing for large and small ensembles. Summer only.
- 533 ADVANCED COUNTERPOINT (4)
Prerequisite: Music 333. Writing and analytical study of contrapuntal forms and literature of the 16th to the 18th centuries.
- 534 COMPOSITION (4)
Prerequisite: Music 436. Composition in the classic forms for solo instruments or small ensembles.
- 535 COMPOSITION (4)
Prerequisite: Music 436. Composition for solo voice accompanied by piano or small ensembles; composition of choral works both a capella and accompanied.
- 536 COMPOSITION (4)
Prerequisite: Music 436. Composition for large instrumental groups: band, orchestra, or a combination of these with chorus, voice, or solo instrument.
- 541, 542, 543, 544 HISTORY/ANALYSIS (4 ea)
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.
541 Music from 900-1600
542 Music from 1600-1800
543 Music from 1775-1900
544 Music from 1900 to present
- 545 SEMINAR IN THE HISTORY OF MUSIC (4)
Prerequisite: permission of instructor. 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.
- 552 SUPERVISION OF ELEMENTARY SCHOOL MUSIC (3)
Advanced work in methods, materials, organization, and supervision of the music program. Summer only.
- 555 CURRICULUM FOR PERFORMANCE GROUPS (3)
Content, literature, sequence, teaching techniques, and demonstration used to meet the broad aims of music in general education.
- 690 THESIS (4-6)
Students in the composition area of the Master of Arts degree program may meet the thesis requirement by submitting a major original composition. Students selecting the performance area may meet the thesis requirement by presenting a full-length recital.





OFFICE ADMINISTRATION & BUSINESS EDUCATION

College of Business and Economics

The Department of Office Administration and Business Education is concerned with the development of programs in two major areas.

The office administration program prepares students to assume responsible supervisory and management positions in the offices of business, industry and government. A knowledge of the skills of office workers, as well as a knowledge of the concepts of office organization and management, and of the changing trends in office operations are included in the coursework in this major. The Bachelor of Science degree is awarded upon successful completion of the program.

Major course requirements are designed to provide a healthy balance in the management tools and include work in office administration, business administration, accounting, economics and computer science. Several elective options are available, dependent upon the student's interest.

The business teacher education program has the responsibility for the preparation of competent business education teachers to meet the strong demand from the secondary and post-secondary schools.

This program consists of a major in business education, with a strong emphasis on methods of teaching each of the business subjects, and a minor in business administration and economics.

Refer to the Graduate Catalog for details of the Master of Education degree in business education which is also available at Western.

OFFICE ADMINISTRATION AND BUSINESS EDUCATION FACULTY

HUBERT N. THORESON (1971) Chairman.
Associate Professor, BS, Valley City State College;
MEd, EdD, University of North Dakota.

Office Administration & Business Education

LOIS E. PETERSEN (1974) Assistant Professor. BA, Wartburg College; MEd, Oregon State University; EdD, University of North Dakota.

ADA G. WALTER (1961) Assistant Professor. BS, Winthrop College; MBA, University of Denver.

BACHELOR OF ARTS

Minor--Business Education 25 credits

- Courses to be selected under departmental advisement

BACHELOR OF SCIENCE

Major--Office Administration 101-108 credits

- Office Admin 117*, 215, 222, 223, 224, 241, 242, 243, 301, 310, 412
- Acctg 251, 252
- Bus Adm 301, 303, 308 (or Econ 381), 322, 330
- Econ 201, 202, 311, 325 or 425, 442
- Computer Science 107 or 110
- Electives (16 credits): Acctg 350, 351, 352, 353; Computer Sci 107, 110, 123, 124, 125; Off Admin 400; Econ 425; other electives under departmental advisement

**Course may be waived if student demonstrates acceptable proficiency in that area.*

Minor--Office Administration 25 credits

- Off Admin 215, 222
- Additional courses selected under departmental advisement

BACHELOR OF ARTS IN EDUCATION

Major--Business Education

Secondary 51-60 credits

- Off Admin 120*, 121*, 215, 222, 223, 241, 242, 243, 301
- Business Education 319, 421, 422, 423, 450
- Economics 201
- Bus Adm 201
- Electives under departmental advisement

This major must be accompanied by the College of Business and Economics minor. This minor shall include Acctg 251 and 252, Bus Adm 271, and 13 additional credits under departmental advisement. The professional education sequence is also required.

**Courses may be waived if student demonstrates acceptable proficiency in that area.*

GRADUATE STUDY

For the program in business education leading to the Master of Education degree, see the *Graduate Bulletin*.

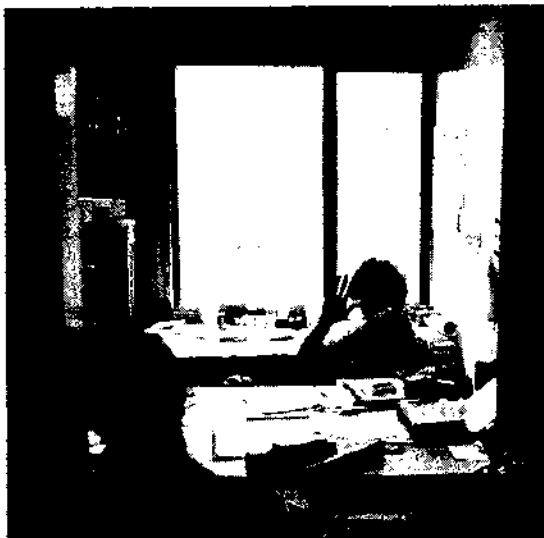
COURSES IN OFFICE ADMINISTRATION

- 116 BASIC TYPEWRITING (3)
Development of the basic techniques of typewriting. Emphasis will be on the use of the typewriter as a communication tool.
- 117 INTERMEDIATE TYPEWRITING (3)
Prerequisite: Off Admin 116 or equivalent. Continued development of skills and techniques with emphasis on the application of skill to a variety of communication activities.
- 120 BEGINNING SHORTHAND (5)
Prerequisite: Off Admin 116 or equivalent. Mastery of Gregg shorthand theory with development of reading skill and an introduction to recording and transcribing skills.
- 121 INTERMEDIATE SHORTHAND (4)
Prerequisite: Off Admin 120 or equivalent. Continued development of theory and of reading skill with increased emphasis on recording and transcribing functions.
- 150 BASIC ACCOUNTING PROCEDURES (4)
Theory and practice of bookkeeping and accounting, with emphasis on both cash and accrual systems.
- 197b BEGINNING TYPEWRITING (2)
This course is designed for students with no previous instruction in typewriting. Objectives of this course include emphasis on proper techniques, speed development and accuracy in the preparation of typewritten materials. Typewriting for personal use will be a part of this course. (Offered only through Continuing Education.)
- 201 BUSINESS CORRESPONDENCE (3)
Prerequisite: English 101 or equivalent. Development of skill in the use of correct English for business purposes.
- 215 ADVANCED TYPEWRITING (4)
Prerequisite: Off Admin 117 or equivalent. Advanced skill development with application to various communication tasks, such as rough drafts, tabulations, reports, business and legal forms. Completion of in-basket projects and a unit in power typewriting is required.
- 222 ADVANCED SHORTHAND (4)
Prerequisite: Off Admin 121 or equivalent. Continued development of reading skills with increased attention on development of accurate transcription ability and development of a comprehensive business vocabulary.
- 223 SHORTHAND TRANSCRIPTION (4)
Prerequisite: Off Admin 222 or equivalent. Emphasis on transcription skills with increased attention to production ability.
- 224 OFFICE PROCEDURES (3)
Prerequisite: Off Admin 117 or equivalent. Development of skills and procedures for performing office duties.
- 241 BUSINESS MACHINES (3)
Development of proficiency in the operation of electronic business machines.

- 242 MACHINE TRANSCRIPTION (2)
Prerequisite: Off Admin 117 or equivalent. Development of the nontranscription skills and skill in producing written communications from recorded media.
- 243 INTRODUCTION TO DATA PROCESSING (3)
Prerequisite: Off Admin 117 or equivalent. Introduction to modern business data processing practices and equipment. Emphasis on the technology and concepts of data processing systems. The impact of computerized data processing on business and society.
- 301 BUSINESS COMMUNICATIONS (4)
Prerequisite: Eng 101 or the equivalent. Business writing principles, organizational plans for different types of communications. Solutions for case problem situations must be submitted in typewritten form.
- 310 RECORDS MANAGEMENT (3)
Organization and management of office records systems, development of skills in the use of records and the managerial aspects of records management. Case problem approach is used.
- 400 DIRECTED STUDY IN OFFICE ADMINISTRATION (1-3)
Prerequisite: senior standing and departmental permission. Individual instruction.
- 412 OFFICE ADMINISTRATION AND MANAGEMENT (4)
Prerequisites: Off Admin 224, 310. Emphasis on organizing and planning office services; planning and implementing efficient work flow; staffing, training, orienting and promoting office personnel; controlling office administrative operations; and the business information processing systems.

COURSES IN BUSINESS EDUCATION

- 319 BUSINESS EDUCATION IN THE SECONDARY SCHOOL (3)
Prerequisite: junior standing. Curriculum planning with consideration of philosophy, scope and objectives.



- 400 DIRECTED STUDY IN BUSINESS EDUCATION (2-3)
Prerequisites: senior standing and permission of instructor. Individual instruction.
- 417a WORD PROCESSING FOR TEACHERS (3-4)
(Four credits with internship.) Prerequisite: departmental permission. Designed primarily for teachers interested in teaching the word processing concept. The concept will be defined, and teaching strategies, techniques and materials will be reviewed and studied. Offered summer 1977.
- 421 METHODS OF TEACHING BOOKKEEPING AND BASIC BUSINESS SUBJECTS (4)
Prerequisites: Acctg 251, 252. Study of objectives, methods, materials and evaluation procedures for teaching in these areas.
- 422 METHODS OF TEACHING TYPEWRITING (4)
Prerequisites: completion of advanced course in typewriting and departmental permission. Methods, materials and objectives involved in developing typewriting skill, with emphasis on psychological principles of motor skill development.
- 423 METHODS OF TEACHING SHORTHAND AND TRANSCRIPTION (4)
Prerequisites: completion of advanced shorthand and departmental permission. Preparation for teaching shorthand and transcription with emphasis on methodologies, objectives, materials and equipment. Student teaching demonstrations will be a part of the course.
- 450 COORDINATION OF VOCATIONAL PROGRAMS (3)
Prerequisite: Bus Ed 319 or equivalent. The course deals with objectives, content and techniques applicable to administration of work-experience programs in vocational education.
- 500 SPECIAL PROJECTS IN BUSINESS EDUCATION (2-3)
Supervised planning and development of practical creative projects in business education.
- 501 SPECIAL PROJECTS IN BUSINESS EDUCATION (2-3)
Supervised planning and development of practical creative projects in business education.
- 502 IMPROVEMENT OF INSTRUCTION IN SHORTHAND AND TRANSCRIPTION (3)
Prerequisites: graduate status and/or proficiency in a symbol shorthand system. Evaluation of methods of teaching shorthand and transcription with emphasis on research findings and their application to skill development.
- 503 PRINCIPLES AND PRACTICES IN BUSINESS EDUCATION (3)
Prerequisites: graduate status and teaching experience. Philosophies and role of business education at secondary and post-secondary levels will be examined with focus on curriculum, course content and current trends.
- 504 ORGANIZATION AND ADMINISTRATION OF VOCATIONAL PROGRAMS IN BUSINESS EDUCATION (3)
Prerequisite: undergraduate major in vocational area or departmental permission. Principles of effective organization and administration of cooperative and other vocational programs. Philosophies, current practices, trends and research in the area will be analyzed.
- 545 EVALUATION AND MEASUREMENT IN BUSINESS EDUCATION (3)
Prerequisite: graduate status and/or departmental permission. A study of the principles of evaluation methods, programs and test construction for business education subjects with statistical interpretation of test results.

Office Administration & Business Education

571 IMPROVEMENT OF INSTRUCTION IN TYPEWRITING (3)

Prerequisites: graduate status, an undergraduate major in business education, and/or departmental permission. The course is designed to present methods, materials and principles underlying successful teaching of typewriting at the secondary and post-secondary levels. A study of current research, the contributions of research to teaching methodology, and needed research in the area of typewriting will be included in this course.

572 IMPROVEMENT OF INSTRUCTION IN BOOKKEEPING AND ACCOUNTING (3)

Prerequisite: graduate status and/or departmental permission. Approaches to teaching recordkeeping, bookkeeping and accounting on the secondary and post-secondary levels with emphasis on critical evaluation of methodology, course content and materials. Research studies and areas needing investigation will be examined.

573 IMPROVEMENT OF INSTRUCTION IN THE BASIC BUSINESS SUBJECTS (3)

Prerequisite: graduate status and/or departmental permission. A study of current trends and research in the methodology of teaching business subjects. Consumer education issues will be an integral part of the course.

574 IMPROVEMENT OF INSTRUCTION IN DATA PROCESSING (3)

Prerequisite: graduate status and/or departmental permission. A study of data processing instruction in the secondary school curriculum including unit record and electronic data processing systems. Materials, equipment, terminology and methodology of teaching a high school data processing course will be emphasized.

690 THESIS (6)

Prerequisite: approval of the student's graduate committee. Field project or a research study under direction of a faculty committee. The field project or thesis may be done off campus between periods of residence work.





PHILOSOPHY

College of Arts and Sciences

The Department of Philosophy offers a wide range of courses in most of the traditional areas of philosophical concern. These may be combined into programs leading to a major or minor in philosophy, or in many cases may be taken to satisfy general education requirements of the College.

Work in philosophy also fits well into many pre-professional programs. For example, for purposes of preparation for law school it is highly desirable; indeed some law schools historically have listed it as the preferred undergraduate major. It is also a preferred major for jobs in government, business, and so on, which require a liberal arts background.

Philosophy is among the oldest of intellectual disciplines. Many areas of study now separate 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 them with profit, and the faculty invites interested students to join them in this pursuit.

PHILOSOPHY FACULTY

- STANLEY M. DAUGERT (1962) Chairman.
Professor. AB, MA, PhD, Columbia University.
- THOMAS E. DOWNING (1968) Assistant Professor. AB, Wayne State University; PhD, Stanford University.
- A. HUGH FLEETWOOD (1962) Associate Professor. AB, MA, PhD, The University of Michigan.
- HALLDOR C. KARASON (1949) Associate Professor of Education and Philosophy. BA in Ed, Western Washington State College; MA, PhD, University of Washington.
- PHILLIP MONTAGUE (1966) Associate Professor. BS, Loyola University; PhD, Stanford University.
- PAUL J. OLSGAMP (1975) Professor of Philosophy and President of the College. BA, MA, University of Western Ontario; PhD, University of Rochester.
- RICHARD L. PURTILL (1962) Professor. BA, MA, PhD, University of Chicago.

BACHELOR OF ARTS

Major 50 credits

- Philosophy 102, 111, 112
- Philosophy 202
- Philosophy 303, 304, 306, 310
- One course from Philosophy 305, 307, 308
- Philosophy 404, 410, 420, 425
- Electives under departmental advisement

Minor 25 credits

- Philosophy 102, 111, 112, 202, 310
- Electives under departmental advisement

TEACHER EDUCATION

Minor 25 credits

- Philosophy 102, 111, 112, 202, 310
- Electives under departmental advisement

DEPARTMENTAL HONORS

A philosophy major who wishes to graduate "with honors" must meet the general requirements for all honors students. In addition, he must take advanced courses in philosophy beyond the major. He must achieve a grade average of 3.3 in philosophy courses.

COURSES IN PHILOSOPHY

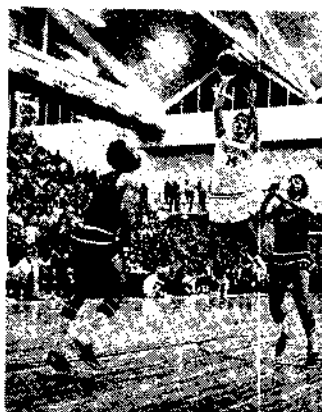
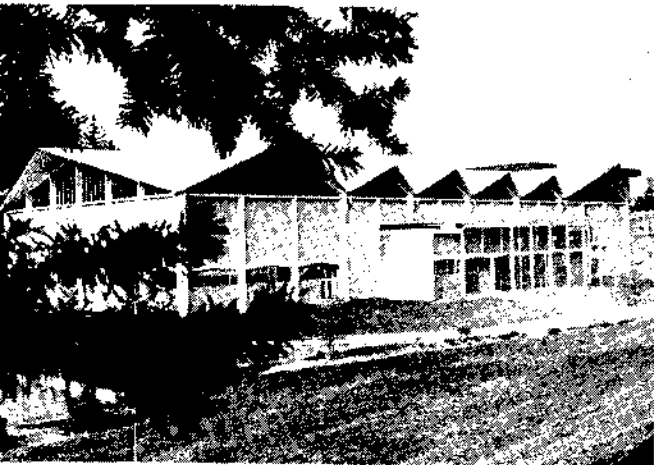
- 102 INTRODUCTION TO LOGIC (3)
Introduction to the techniques of formal reasoning. Acceptable general education alternative to Math 151.
- 107 LOGICAL THINKING (3)
An aid to speaking and writing so as to reflect clear, critical and responsive thinking, covering definition, classification, fallacies and techniques of good argument.

The following three courses are all introductory philosophy courses. They are not sequential and none of them presupposes any of the others.

- 111 INTRODUCTION TO PHILOSOPHY: PHILOSOPHIC PROBLEMS (3)
Great recurrent philosophical problems and some of the answers which have been developed; reading and discussion of selected writings.
- 112 INTRODUCTION TO PHILOSOPHY: MORAL PHILOSOPHY (3)
Nature of moral problems and judgments; emphasis upon meaning of such concepts as "goodness," "rightness," "evil," "duty" and "happiness."
- 113 INTRODUCTION TO PHILOSOPHY: PHILOSOPHY OF RELIGION (3)
Nature of religion, especially theism. Nature and existence of God, problem of evil. Selected subjects from the following: role of faith and reason, religious experience and religious language, immortality, free will.
- 202 INTERMEDIATE LOGIC (4)
Prerequisite: Phil 102. Systems of logic and their application to philosophical problems.
- 207 PHILOSOPHY AND FANTASY (3)
Examination of some philosophical themes in the imaginative writing of C. S. Lewis, J.R.R. Tolkien and others.
- 215 INTRODUCTION TO EXISTENTIALISM (3)
Prerequisite: Phil 111. Major philosophers of the existentialist school, philosophical problems and answers as seen by existentialism.
- 301 MORALITY, MEDICINE AND THE LIFE SCIENCES (3)
Prerequisite: one philosophy or one biology course. An investigation of moral problems that arise in connection with medical practice and research in the life sciences. Some of the more prominent of these concern genetic engineering, euthanasia, etc.
- 302 ADVANCED LOGIC (4)
Further development of the tools and techniques of logic; applications in mathematics, science, and philosophy.
- 303 PHILOSOPHY OF LANGUAGE (3)
Prerequisite: Phil 202. The nature of symbols; notions of synonymy, meaning, and reference; semantical and syntactical analysis applied to natural and artificial languages.
- 304 HISTORY OF PHILOSOPHY: ANCIENT TO EARLY MIDDLE AGES (4)
Prerequisites: Phil 102 or 202 and one additional philosophy course. Great philosophical thinkers from the early Greeks to the early Middle Ages; special attention to Plato and Aristotle.
- 305 HISTORY OF PHILOSOPHY: MIDDLE AGES TO RENAISSANCE (4)
Prerequisites: Phil 102 or 202 and one additional philosophy course. Great philosophical thinkers from the 12th to the 17th centuries, including St. Thomas Aquinas, St. Bonaventure, Duns Scotus, William of Occam, Roger and Francis Bacon.
- 306 HISTORY OF PHILOSOPHY: RENAISSANCE TO THE AGE OF REASON (4)
Prerequisites: Phil 102 or 202 and one additional philosophy course. Great philosophical thinkers including Descartes and the rationalists, Locke and the empiricists.
- 307 HISTORY OF PHILOSOPHY: THE NINETEENTH AND TWENTIETH CENTURIES (4)
Prerequisites: Phil 102 or 202 and one additional philosophy course. Kantian and post-Kantian philosophy with some attention to other significant movements such as utilitarianism, early existentialism, and pragmatism.



- 308 AMERICAN PHILOSOPHY (3)
Prerequisites: Phil 102 or 202 and one additional philosophy course. Main currents in American philosophical thought from Jonathan Edwards to the present.
- 310 THEORY OF KNOWLEDGE (3)
Prerequisites: Phil 202 and one course numbered above 200. The attempt to understand the possibility, nature, origins, and limits of knowledge; problems and concepts.
- 330 SOCIETY, LAW AND MORALITY (3)
Concepts and principles involved in analysis and appraisal of social institutions with attention to natural rights, natural laws, social utility, social function and justice.
- 350 ORIENTAL PHILOSOPHY AND RELIGION (3)
Prerequisite: upper-division standing. Major philosophical and religious traditions of the Orient.
- 400 CONFERENCE IN PHILOSOPHY (2-5)
Prerequisite: permission of instructor. Special problems for individual students.
- 404 SEMINAR IN PHILOSOPHY (3)
Prerequisite: permission of instructor. Concentration upon the thought of an individual philosopher, a particular problem, or a movement. Course may be repeated.
- 405 PHILOSOPHY OF ART AND CRITICISM (3)
Philosophical study of beauty and of the creation, appreciation, and criticism of works of art.
- 410 METAPHYSICS (3)
Prerequisites: Phil 202 and one additional course numbered above 200. Philosophical issues surrounding such notions as particular and universal, space, time, existence, substance and attribute; views of contemporary and traditional philosophers.
- 411 PHILOSOPHY OF SCIENCE (3)
Prerequisite: permission of instructor. Varying theories as to the nature, presuppositions, limitations and interrelations of the sciences.
- 420 ETHICAL THEORY (3)
Prerequisite: Phil 112. Critical analysis of writings of several major theorists in ethics—ancient, modern, and contemporary and their treatment of ethical problems.
- 425 PHILOSOPHY OF MIND (3)
Prerequisites: Phil 202 and one additional course numbered above 200. The nature of mind and the meaning of such concepts as intelligence, attention, will, emotion, and feeling and imagination.
- 460 PHILOSOPHY OF HISTORY (3)
Prerequisite: seven credits in philosophy. The idea of history; concepts and categories allied to it—process, permanence and change, cause, time.



PHYSICAL EDUCATION

College of Arts and Sciences

The Department of Physical Education offers a wide variety of activities for those students interested in the development of life-time sports skills and/or the promotion of personal fitness and physical development. In addition to team sports and individual and dual activities, classes are offered in several outdoor pursuits; including skiing, mountaineering, sailing, horsemanship, ice skating, hiking and alpine travel.

All students are eligible to participate in intramural sports, dance, and swimming programs. An extensive intercollegiate athletic program is available for both men and women students.

For students planning a professional career in physical education, health education or recreational leadership, several major and minor concentrations are offered which may lead to rewarding careers with either educational agencies or in private enterprise.

The Arts and Sciences major in physical education offers career opportunities through coaching, sports writing, dance, pre-physical therapy, and business sports options.

PHYSICAL EDUCATION FACULTY

- MARGARET H. AITKEN (1946) Chairman. Professor. BA, University of Washington; MA, EdD, Teachers College, Columbia University.
- EVELYN E. AMES (1964) Associate Professor. BS, University of Nevada; MS, Washington State University; PhD, University of Maryland.
- M. CHAPPELLE ARNETT (1960) Professor. BS, Centenary College; MS, Purdue University; EdD, University of Missouri.
- ROY CLUMPNER (1975) Assistant Professor. BS, University of Wisconsin; MA, California State University; PhD, University of Alberta.
- PATRICIA A. FRIEDLAND (1972) Assistant Professor. BS, Oregon State College; MS, University of Oregon.
- LYNDA M. GOODRICH (1973) Assistant Professor. BA in Ed, MA, Western Washington State College.

- ALTA J. HANSEN (1961) Associate Professor. BS, Pacific University; MS, PhD, University of Oregon; BS in PT, University of California Medical Center.
- BOYDE LONG (1966) Associate Professor. BS, MA, University of New Mexico.
- JAMES R. LOUNSBERRY (1959) Associate Professor. BA in Ed, Central Washington State College; MS, EdD, University of Washington.
- CALVIN MAC FARLANE
- CHARLES R. RANDALL, JR. (1962) Associate Professor. BA, Eastern Washington State College; MA, Washington State University.
- RALPH A. VERNACCHIA (1973) Assistant Professor. BA, Montclair State College; MS, Ohio University; PhD, The University of Utah.
- DON W. WISEMAN (1962) Associate Professor. BA, Idaho State University; MS, Washington State University.
- EVELYN D. WISEMAN (1970) Assistant Professor. Teacher Training—Homerton College, Cambridge, England; Dip in Ed, University of Birmingham; MEd, Western Washington State College.

BACHELOR OF ARTS IN EDUCATION

Physical Education Majors

Physical education major programs are available for men and women students. Options within the program offer a variety of opportunities for students to prepare for secondary, elementary, or for K-12 programs. Students majoring in physical education are required to take PE 200, Introduction to Physical Education, the first quarter they enter the major.

The physical education options designated as Option I: K-12 Specialist; Option II: Secondary; Option III: Elementary, have similar requirements and courses to be selected from four core areas. Core areas are as follows: Core A: Professional Activities; Core B: Scientific Foundations; Core C: Professional—Curriculum, Methods, Practicum; Core D: Professional—Developmental.

Students should first select an option as a major; then in each of the four core areas, a number of credits to be taken in each core are indicated. Students select, *under advisement*, courses which they will take from each of the four areas. *Selection of courses must be arranged with a departmental adviser.* All students are encouraged to complete a minor to be granted academic competency in another teaching area.

Physical Education Majors: Options I, II, III

- Physical Education 200 required.
- Option I: K-12 Specialist; minimum 59 credits (supporting course: Biology 348).
- Option II: Secondary; minimum 49 credits (supporting course: Biology 348).
- Option III: Elementary; minimum 44 credits (supporting course: Biology 348).

Core Areas

Core A: Professional Activities

- 14 credits in at least 10 courses must be taken in Core A and one course must be from each of the following areas: team sports, individual and dual sports, dance, aquatics. In addition, major students (Options I, II) must show advanced proficiency, two credits, in intercollegiate activities, performance activities, and/or officiating. It is recommended that students take additional credits in Outdoor Pursuits (PE 157, 158 or 159, 160, 161 or 167, 170, 171)
- Professional Activities Courses: PE 203, 208, 209, 211, 223, 232, 234, 236, 238, 241, 242, 244, 245, 247, 250, 251, 254, 256
- Options I and II: 14 credits and a minimum of 10 different professional activity courses
- Option III: 8 credits and a minimum of 6 different professional activity courses

Competency above the beginning level must be established before taking courses from the professional sequence. Beginning courses in the above areas cannot be applied to the major and minor requirements.

Core B: Scientific Foundations

- Courses: PE 201, 202, 302, 303, 307, 407, 485
- Options I, II, III: 17 credits

Core C: Professional — Curriculum, Methods, Practicum

- Courses: PE 306, 313, 326, 401, 402, 411, 481, 482, 492
- Option I: 15-17 credits
- Option II: 8 credits
- Option III: 14-17 credits

Core D: Professional — Administration, Evaluation, Athletic Injuries, First Aid

- Courses: PE 304, 308, 309, 310, 403, 404, 410, 490
- Health Education 252 or 352
- Option I: 12 credits
- Option II: 8 credits
- Option III: 5 credits

Teaching Competence

Recommendation for teaching competence for physical education normally requires a completion of a major or an augmented minor (30 credit hours) with a minimum grade average of 2.5. Participation in intramural and/or club sport activities is encouraged for all majors and minors during four quarters of the first two years.

Physical Education

Minor—Physical Education

Secondary 27 credits

(For teaching competency, 30 credits.)

- PE 200
- 12 credits from the professional activity sequence
- 8 credits selected from PE 201, 202, 302, 303, 404, 407, 485
- PE 304 or Health Ed 252 or 353, PE 307, 401

Biology 348-349 should be taken as part of the general education requirement. Concentrated study in one sport area is recommended with additional participation in activity classes and intercollegiate teams in other sports.

Minor—Physical Education

Elementary 25 credits

(For teaching competency, 30 credits.)

- 8 credits: PE 209, 211, 244, 251, 256
- 8 credits: PE 201, 202, 302, 303, 307, 485
- 7-9 credits: PE 306, 326, 313, 403
- Health Ed 252 or 352
- 2-4 credits under advisement

Biology 348-349 should be taken as part of the general education requirement.

Minor—Athletic Coaching (Men & Women)

30 credits

- 7-9 credits selected from PE 380-387
- 4 credits selected from PE 341-347
- PE 208, 304
- 6 credits in PE 491
- 8 credits selected from PE 302, 303, 307, 309, 310, 406, 410, 485

Biology 348-349 should be taken as part of the general education requirement. Concentrated study in one sport area is recommended with additional participation in activity classes and intercollegiate teams in other sports.

Completion of the athletic coaching minor does not meet requirements for teaching competency in physical education.

Minor—Health Science 25 credits

- Health Ed 349, 352, 350, 447, 449 or 450
- Home Econ 250
- Biology 348
- 2 credits under departmental advisement

Biology 349 should be taken as part of the general education requirement.

Minor—Educational Dance 25 credits

- PE 122, 126, 209, 223, 326

- 16 credits under departmental advisement

Minors must plan, under departmental advisement, to take additional course work to attain teaching competency.

BACHELOR OF ARTS (MEN AND WOMEN)

Major—Physical Education 85-90 credits

The Arts and Sciences physical education major provides concentrated study of the concepts and skill of human movement, a study of man engaging in motor performance in his daily life and in other motor performances yielding aesthetic values or serving as an expression of his physical and competitive nature. The major is career oriented to prephysical therapy, research and graduate study, recreational leadership or professional roles of coaching or writing in sports.

The major requires demonstrated competency in a number of professional activities, a background knowledge in the scientific foundations of human movement and the cultural implications of sport in society, and an elective core selected as to the individual's professional goals.

85 credits, selected as follows:

- PE 200
- Professional activities and skill competencies: select 18 credits from PE 100 and 200 level courses; departmental advisement is required in this selection
- Scientific foundations of human movements: select 25 credits from PE 201, 202, 302, 303, 307, 402, 485, 490. Biology 348-349 should be included as part of the general college requirement
- Socio-cultural aspects of sports and physical education: select credits from PE 308, 309, 310, 407, 491
- Specialization area: select 24-35 credits from one of the following specializations:
 - Coaching of Sports: PE 341-346; PE 380-387; PE 406, 410
 - Journalism: complete the journalism minor, see English Department section of General Catalog
 - Dance: complete dance minor
 - Leisure Studies Option: completion of leisure studies minor, see Interdepartmental section of General Catalog
 - Pre-Physical Therapy: see requirements listed in the Professional Transfer Programs section of General Catalog
 - Business Administration: complete the business administration minor, see Business Administration section of General Catalog

Minor—Physical Education 26-30 credits

- PE 200
- 8-10 credits from professional activities PE 203-256
- 8-10 credits from scientific foundations: PE 201, 202, 302, 303, 307, 402, 485, 490
- 8-10 credits from socio-cultural aspects: PE 308, 309, 310, 407, 491

Minor—Athletic Coaching
(men & women) 30 credits

- 7-9 credits selected from PE 380-387
- 4 credits selected from PE 341-346
- PE 208, 304
- 6 credits in PE 491
- 8 credits selected from PE 302, 303, 307, 309, 310, 406, 410, 485

Biology 348-349 should be taken as part of the general education requirement. Concentrated study in one sport is recommended with additional participation in activity classes and intercollegiate teams in other sports.

Major Concentration—Leisure Studies

See Interdepartmental Programs section for detailed requirements.

Minor—Leisure Studies

See Interdepartmental Programs section for detailed requirements.

BACHELOR OF SCIENCE**Major—Community Health** 110 credits

- Health Ed 349, 350, 352, 407, 447, 451
- Home Econ 250
- Chem 121, 122, 251
- Biology 101, 345, 348, 349, 370
- Psych 201, 313, 314
- Soc 202, 340
- Huxley 350a
- PE 303
- Electives (4 credits)

Minor—Health Science 25 credits

- Health Ed 349, 350, 352, 406, 447
- Home Econ 250
- 2 credits selected under advisement
- Biology 348
- Biology 349 recommended

GRADUATE STUDY

For concentrations in physical education leading to the Master of Education degree, see *Graduate Bulletin*.

ACTIVITIES COURSES

Activities courses, with the exception of varsity sports, may not be repeated for credit. Courses marked "m" are for men students only; those marked "w" are for women only.

Beginning courses, or equivalent, are prerequisite to intermediate courses, which are in turn prerequisite to advanced courses in any given activity.

101-109 DEVELOPMENTAL (1 ea)

- 102 Conditioning
- 103 Jogging
(repeatable to a maximum of 3 credits)
- 108 Weight Training
(repeatable to a maximum of 3 credits)

111-119 AQUATICS (1 ea)

- 112 Beginning Swimming
(For non-swimmers.)
- 113 Intermediate Swimming
Prerequisite: PE 112 or ability to swim twenty-five yards and support self in deep water.
- 114 Advanced Swimming
Prerequisite: PE 113 or ability to swim 100 yards with one stroke and to use a variety of other strokes.
- 118 Scuba Diving (2 credits)
Prerequisite: student must pass swim test.
(The student pays cost of basic equipment.)

120-129 DANCE (1 ea)

- (See Theatre/Dance Department for additional dance offerings.)
- 120 Beginning Social Dance
 - 122 Beginning Folk and Square Dance
 - 123 Intermediate Folk and Square Dance
 - 125 Modern Dance
 - 126 Intermediate Modern Dance
 - 128 Ballet I
 - 129 Ballet II

130-139 DUAL SPORTS (1 ea)

- 130 Beginning Handball
 - 131 Beginning Squash
 - 132 Beginning Badminton
 - 133 Intermediate Badminton
 - 134 Fencing
 - 136 Beginning Tennis
 - 137 Intermediate Tennis
 - 138m Beginning Wrestling
 - 139 Beginning Racketball
- The student furnishes equipment for PE 130, 131, 136, 137, 139.

140-149 TEAM SPORTS (1 ea)

- 141 Field Hockey
- 142 Basketball
- 143 Softball
- 144 Speedball and Soccer
- 145 Volleyball
- 148 Lacrosse
- 149 Rugby

150-169 INDIVIDUAL SPORTS (1 or 2 ea)

- 150 Archery
- 151 Gymnastics and Tumbling
- 152 Beginning Bowling
(Bowling alley fee, \$15.)
- 153 Intermediate Gymnastics
Prerequisite: PE 151m or w or equivalent.
- 154 Golf
- 156m,w Track and Field
- 157 Beginning Skiing

Physical Education

- 158 Intermediate Skiing
- 159 Advanced Skiing
- 160 Sailing and Canoeing
Prerequisite: swimming test.
- 161 Mountain Climbing (2)
- 162 Basic Horsemanship
- 163 English or Western Equitation
Prerequisite: PE 162.
- 166 Ice Skating
- 167 Bicycling (1)
- 168 Karate (1)

The student enrolling in 157, 158, 159, 160, 161, 162, 163, 166 pays cost of transportation and individual instruction. Students in 157, 158, 159, 161, 165, 166, 167 also furnish own equipment.

- 170 HIKING AND ALPINE TRAVEL (2)
- 171 KAYAKING (2)
- 172 CREW (1)
- 173 RIFLERY (1)
- 180-193 INTERCOLLEGIATE SPORTS (1 ea)
 - 180m Intercollegiate Football
 - 180w Intercollegiate Field Hockey
 - 181m,w Intercollegiate Basketball
 - 182m Intercollegiate Baseball
 - 183m,w Intercollegiate Track and Field
 - 184m Intercollegiate Wrestling
 - 185m Intercollegiate Golf
 - 186m,w Intercollegiate Tennis
 - 189m Intercollegiate Cross Country
 - 190m Intercollegiate Crew
 - 192w Intercollegiate Volleyball

199 SPORTS CLINIC (2)

Participation in a week workshop in one of the following sports: basketball, gymnastics, track and field, volleyball, or wrestling. Repeatable for a maximum of six credits.

PROFESSIONAL COURSES

200 INTRODUCTION TO PHYSICAL EDUCATION (2)

The course is to furnish students with a basic knowledge and understanding of the philosophical, historical, psychological, sociological and scientific foundations of physical education. The major areas to be treated in addition to the latter are: career orientation, professional organizations, research area, relationship between physical education and athletics, physical fitness and skill competency testing.

201 BIOMECHANICS I (2)

Prerequisites: physical education or industrial design major or minor. Analysis of prerequisites of efficient movement, including physical qualities of strength, flexibility and endurance, and basic mechanical principles of gravity, equilibrium, force and leverage; basic locomotor movements and calisthenic-type activities.

202 BIOMECHANICS II (2)

Prerequisite: PE 201. Application of basic mechanical principles to sports, rhythmic and aquatic skills; buoyancy and motion; use of implements; angles of spin and rebound; trajectory of projectiles. Not open to students who have taken PE 302.

203-256 PROFESSIONAL ACTIVITIES

Required of majors and/or minors in physical education. Prerequisite: for women—competency in skills and knowledges as established by proficiency tests given when student enters the major field. For men—completing test or completion of 100 level course in this activity.

- 203 Aquatics (or demonstrate advanced competence) (1)
- 208 Weight Training and Body Conditioning (2)
- 209 Recreational Dance (2)
- 211 Educational Gymnastics (2)

- 223 Modern Dance (2)
- 232 Badminton (1)
- 234 Fencing (1)
- 236 Tennis (2)
- 238 Wrestling (2)
- 241 Field Hockey (1)
- 242 Basketball (2)
- 242 Basketball (2)
- 244 Soccer (2)
- 244 Soccer and Speedball (2)
- 245 Volleyball (2)
- 245w Volleyball (2)
- 247 Football Techniques (2)
- 250 Archery (1)
- 251 Gymnastics (2)
- 251 Gymnastics (2)
- 254 Golf (1)
- 256 Track and Field (2)
- 256 Track and Field (2)

216 LIFESAVING AND WATER SAFETY (2)

Prerequisite: advanced level in swimming proficiency test. Instruction leading to qualification for the American Red Cross Lifesaving Certificate.

217 WATER SAFETY INSTRUCTORS' COURSE (2)

Prerequisite: current American Red Cross Advanced Lifesaving Certificate. Stroke analysis and methods of teaching lifesaving and aquatics skills; instruction leading to qualification as an American Red Cross Water Safety Instructor.

280 SPORTS CONDITIONING (1)

A program of conditioning established in consultation with the instructor to meet specific athletic needs of the student.

302 KINESIOLOGY (5)

Prerequisite: Biol 348 or equivalent. Important muscles of the body; origin, insertion, and action; principles of human movement; performance analysis of basic locomotor movements, daily living activities, and sports skills; laboratory work included.

303 PHYSIOLOGY OF EXERCISE (5)

Prerequisites: Biol 348. Nature of neuromuscular activity, circulation and respiration adjustment during exercise, metabolic and environmental aspects, fatigue and training, fitness and health; includes laboratory experiments.

304 ATHLETIC INJURIES AND TRAINING (3)

Prerequisite: Biol 348. Care and prevention of athletic injuries; procedures for building physical stamina; experience in taping procedures. Laboratory fee.

306 PHYSICAL EDUCATION FOR ELEMENTARY SCHOOL (3)

Prerequisite: Psych 316. Purposes and requirements of the program; developmental aspects of curriculum for classroom teachers.

307 MOTOR LEARNING (3)

Prerequisite: 10 credits in PE professional sequence. Introduction to motor learning; presentation and discussion of the learning and retention processes as they relate to physical activities; a synthesis of current research findings concerned with learning gross motor skills; emphasis on practical experiences related to teaching methodology and coaching techniques.

308 INTERNATIONAL PHYSICAL EDUCATION AND SPORT (3)

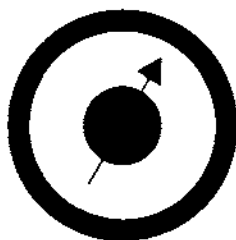
Prerequisite: PE 200. An analysis of various physical education and sport programs throughout the world, with an emphasis on socialist countries, Western European countries, and Canada.

- 309 **PSYCHOLOGY OF SPORT (3)**
A study of psychological principles and states which are present in sporting activities both at recreational and highly competitive levels in our society. Particular emphasis is placed on evaluation and assessment of personality, sport as a stress seeking domain, emotional states, motivation, aggression, relationship of motor and intellectual performance, and personality theory and dynamics as they relate to sport.
- 310 **SOCIOLOGY OF SPORT (3)**
A study of the sociological implications of sport in contemporary American society. Particular interest is given to political, religious, and economic aspects of sport and society as well as such additionally related areas as social mobility, discrimination, and female participation in sporting activities.
- 313 **PHYSICAL EDUCATION LABORATORY EXPERIENCE WITH CHILDREN (1-3)**
Prerequisites: PE 306 or 311 or taken concurrently. Teaching K-6 grade children.
- 326 **DANCE FOR CHILDREN (3)**
Creative dance, basic rhythms, simple folk and square dance for children.
- 341-347 **SPORTS OFFICIATING (2 ea)**
Officiating techniques for individual and team sports.
341m Football
341w Field Hockey
342m Basketball
342w Basketball
343 Track and Field
344 Tennis
345 Volleyball
346 Gymnastics
347 Wrestling
- 380-387 **COACHING SPORTS (2-3 ea)**
Practical and theoretical aspects of coaching the sport with special emphasis on advanced skill development and current methodology and resource materials being utilized.
380 Football (3)
381 Basketball (3)
382 Baseball (2)
383 Track (3)
384 Wrestling (2)
385 Volleyball (2)
386 Gymnastics (2)
387 Tennis (2)
- 399 **KAYAKING AND WHITE WATER TRAINING (2)**
Prerequisite: permission of instructor. An introduction to water safety and general development of white water judgment and skills on rivers classed 2-3-4 on the international scale of 1 to 6.
- 400 **SPECIAL PROJECTS IN PHYSICAL EDUCATION (2-5)**
Prerequisites: senior status and permission of instructor. Individual instruction in special projects under supervision.
- 401 **METHODS SEMINAR AND PROFESSIONAL PRACTICUM (5)**
Prerequisite: junior status and completion of 20 hours in the major program. Seminar, observation, and practical experience in teaching physical education in secondary schools.
- 402 **CORRECTIVE PHYSICAL EDUCATION (3)**
Prerequisites: Biol 348 or equivalent; PE 302. Implications of growth patterns, coordinations and postural deviations relating to the physical education program; conditioning techniques, corrective procedures.
- 403 **PHYSICAL EDUCATION PROGRAM FOR THE ELEMENTARY SCHOOL (3)**
Prerequisites: Psych 316, PE 311, 326. Criteria for selecting activities; selection and maintenance of facilities and equipment; evaluative procedures and techniques; administrative policies.
- 404 **ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION FOR SECONDARY SCHOOL (3)**
Prerequisites: PE 307. Criteria for the selection of program activities, the organization of classes, personnel policies, purchase and care of equipment.
- 406 **THE ADMINISTRATION OF ATHLETICS (3)**
Prerequisite: senior status. Organization and administration of policies and procedures for interschool athletic programs with special emphasis on management of contests, financing, care and maintenance of facilities and equipment.
- 407 **HISTORY AND PHILOSOPHY OF PHYSICAL EDUCATION (3)**
Prerequisites: PE major or minor; senior status. Philosophical and historical considerations of physical education with emphasis on social, cultural and aesthetic aspects of sports and dance.
- 410 **INTRAMURAL AND INTERSCHOOL PROGRAMS (2)**
Program content and planning for athletic events in secondary schools.
- 411 **INDIVIDUALIZED INSTRUCTION FOR SECONDARY PHYSICAL EDUCATION (2)**
Prerequisite: professional activity sequence equivalent. Utilization of inquiry, problem-solving and direct teaching methods.
- 445 **CURRENT TRENDS IN PHYSICAL EDUCATION (2-6)**
445a Physical Education for the Elementary School (3)
445f Coaching Clinic for Women (2)
Prerequisite: senior or graduate status.
445m Track & Field Coaching Clinic for Men and Women (2)
Analysis and in-depth study of techniques and training methods in track and field events. Utilization of event films, seminars, lectures and practical experience to explore and study each track and field event. Coaching psychology is also covered.
445p Sports Medicine Programs for the Male and Female Athlete (2)
Prerequisite: PE 304. A workshop for teachers and coaches on athletic conditioning for prevention of injuries common to sports participation. Guest orthopedists, physical therapists and athletic trainers will present their views followed by discussion and demonstrations.
445q Coaching Clinic in Soccer (2)
Prerequisite: senior or graduate status.
445r Sport Psychology Workshop (2)
This workshop is designed for coaches, physical education teachers and administrators. Topics and laboratory experiences will include the various aspects of psychosocial principles which lead to improved performance effectiveness of athletes as well as the quality of the learning experience for the student. The proposed topics are application of psychometric techniques to evaluate individual athletes; hypnosis and sport; case study evaluative techniques; group dynamics; positive image psychology and goal-setting techniques; and seminar situations which allow participants to explore such concepts.

Physical Education

- 481 **MOVEMENT EDUCATION (3)**
Prerequisite: PE 211 or 306. History, philosophy and rationale for a movement education approach in the teaching of physical skills. A study of the potential application and influence of movement education in current physical education curricula. Uses and abuses of existing movement education programs. Principles of movement education for the development of future physical education curricula.
- 482 **GAMES AND SPORTS: A MOVEMENT EDUCATION APPROACH FOR ELEMENTARY AND MIDDLE SCHOOLS (3)**
Prerequisite: PE 306 or equivalent. Developing problem-solving strategies, modified games/sports, creative games in cooperative and competitive activities. Use of learning centers/station.
- 485 **HUMAN GROWTH AND MOTOR DEVELOPMENT (3)**
Growth characteristics and sequence of motor development to maturity; implications for motor performance.
- 490 **MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION (3)**
Application of the theory of measurement, evaluation, and appropriate statistical processes to physical education programs; practical experiences involving test selection, administration and evaluation and interpretation of results in public school and college physical education programs.
- 491 **FIELD EXPERIENCE IN PHYSICAL EDUCATION ACTIVITIES (3)**
Prerequisites: senior standing and permission of department. Practical experience in local public schools and voluntary agencies in conducting activity programs. Course may be repeated once.
- 492 **SEMINAR AND PRACTICUM IN PHYSICAL EDUCATION (2)**
Prerequisites: upper-division status, permission of department. Seminar and individualized practicum in teaching physical education activities. The course may be repeated.
- 495 **PHYSICAL EDUCATION FOR THE MENTALLY RETARDED (3)**
Prerequisite: senior or graduate status. The characteristics and needs of the mentally retarded child as they relate to physical education; adaptation of methods, materials and techniques.
- 496 **MOVEMENT EDUCATION FOR THE EXCEPTIONAL CHILD (3)**
Prerequisite: permission of instructor. Use of movement experiences for child-centered education for exceptional children; methods, activities in gymnastics, games and sports, body competencies and creative movement.
- 497w **OUTDOOR EXPERIENTIAL EDUCATION: A MEANS OF PHYSICAL EDUCATION (3)**
Prerequisite: teaching experience or permission of instructor. The course examines the rationales of outdoor programs (such as "Project Adventure," "Outward Bound") activity and the problems and possibilities of this approach to physical education are explored experientially. Concurrent enrollment in PE 170 is advised. Also offered as Leisure Studies 497c.
- 500 **PROBLEMS IN PHYSICAL EDUCATION (2-5)**
Prerequisite: teaching experience. Controversial issues in the field; the professional problems pertinent to the individual members of the group.
- 501 **SEMINAR: PROFESSIONAL LITERATURE (3)**
Prerequisite: teaching experience. Selected research, published books, dissertations and periodicals which have influenced physical education thought and practice.
- 502 **DEVELOPMENTAL AND ADAPTED PHYSICAL EDUCATION (5)**
Prerequisites: Biol 348, PE 302 and 402. Development of programs of adapted activities for the low-fitness and handicapped elementary and secondary school student, with emphasis on common postural deviations, screening techniques and adapted activities.
- 503 **PHYSICAL EDUCATION EQUIPMENT AND FACILITIES (3)**
Functional design and planning of gymnasiums and other physical education facilities, and the purchase and care of athletic and physical education equipment.
- 504 **CURRICULUM IN PHYSICAL EDUCATION (4)**
Prerequisite: teaching experience. Physical education programs based on the needs, interests, abilities of students.
- 506 **RESEARCH DESIGN IN PHYSICAL EDUCATION (4)**
Prerequisite: graduate status; Ed 501 or taken concurrently. Purpose and design of various methods with emphasis upon experimental, descriptive, survey methods usually incorporated in schools, agencies, colleges, computer application.
- 507 **MOTOR LEARNING: ADVANCED (3)**
Prerequisite: PE 307 or permission of instructor. Factors affecting the acquisition of skill; individual and group differences, retention, transfer of training, motivation in learning motor skills.
- 530 **SEMINAR: ADMINISTRATION OF PHYSICAL EDUCATION AND ATHLETICS (3)**
Prerequisite: teaching experience. Administration of school physical education and athletic programs; current problems, plant, personnel, structure and organization, public relations and emergent patterns.
- 531 **SEMINAR: COMPARATIVE PHYSICAL EDUCATION (3)**
Prerequisite: PE 407. Physical education systems in major countries; backgrounds, types, aims and present function; comparison with the American system.
- 534 **SEMINAR: SUPERVISION OF INSTRUCTION IN PHYSICAL EDUCATION (3)**
Prerequisite: teaching experience. Fundamentals for supervision of physical education instruction in the public schools; procedures, organization, evaluation of programs.
- 540 **SEMINAR: APPLIED EXERCISE PHYSIOLOGY AND DESIGN OF PHYSICAL ACTIVITY PROGRAMS (3)**
Prerequisite: PE 303. Scientific and behavioral bases of exercise and stress testing exercise prescription, stress and adaptation to stress, cardiovascular and respiratory dynamics, metabolism, counseling, and exercise programming.
- 541 **SEMINAR: SPORT PSYCHOLOGY (3)**
Prerequisite: teaching experience. Application of data from psychology to sport activity, athletics, performance and coaches.
- 542 **SEMINAR: SOCIOLOGY OF SPORT (3)**
Prerequisite: teaching experience. Role and nature of sport in society; affluence and sport, urban life and leisure, amateur and professional sport, politics and sport.
- 543 **SEMINAR: BIOMECHANICS (3)**
Prerequisite: PE 302. Application of mechanical principles to analysis of motor skills and athletic events.

- 545 SEMINAR: PERCEPTUAL-MOTOR DEVELOPMENT: IMPLICATIONS FOR PROGRAM (3)
Prerequisite: PE 485. Review of research in perceptual-motor development and application to program in physical education and special education.
- 690 THESIS (1-6)
Prerequisite: formal advancement to candidacy for the master's degree in physical education.
- ### COURSES IN HEALTH EDUCATION
- 150 CONSUMER HEALTH (2)
Analysis, selection, and evaluation of health products and services; appraisal of health information, misconceptions, superstitions; consumer protection agencies.
- 151 SOCIETY AND DRUGS (2)
Classification, psychopharmacology, use and misuse of mood and behavior modifying drugs; research; public law, and use and misuse of over-the-counter drugs.
- 152 SOCIETY AND SEX (2)
Sociological, psychological, and biological aspects of human sexuality.
- 252 FIRST AID AND PERSONAL SAFETY (2)
First aid for common injuries and illnesses based on the American Red Cross Standard and Advanced First Aid and Personal Safety course. The student qualifies for the American Red Cross Certificate.
- 349 CONTEMPORARY HEALTH ISSUES I (3)
Prerequisite: junior status. Topics covered: overweight/obesity and weight control, consumer health, human sexuality and licit and illicit drugs.
- 350 CONTEMPORARY HEALTH ISSUES II (3)
Prerequisite: junior status. Topics covered: cancerous diseases, cardio-vascular and other chronic and degenerative diseases; communicable diseases, respiratory ailments, allergies and internal disorders. (Not available to those who have taken Health Ed 150, 151 and 152.)
- 351 BASIC FIRST AID AND CARDIO-PULMONARY RESUSCITATION (1)
First aid using a multi-media program including units on cardio-pulmonary resuscitation. Off campus only.
- 352 ADVANCED FIRST AID AND EMERGENCY CARE (3)
The course is designed to develop the functional first aid capabilities required by persons who are responsible for giving emergency care to the sick and injured. American Red Cross certificates are given on completion of course requirements.
- 400 SPECIAL PROJECTS IN HEALTH SCIENCE (2-5)
Prerequisite: senior status and permission of instructor. Special problems for individual students.
- 406 HEALTH PROBLEMS OF SCHOOL AGE CHILDREN (3)
Prerequisite: junior status. The role of the elementary school teacher in identifying children with health problems and offering appropriate referral; identifying and incorporating school and community health services to the best advantage.
- 407 HISTORICAL PERSPECTIVES OF HEALTH EDUCATION (3)
Prerequisites: junior status, health science major or minor, and Health Ed 349, 350 and 447. Analyze definitions of health, evaluate philosophical approaches to health education; determine rationale behind different concepts of health education; identify factors which contribute to formation of health education concepts; identify significant movements and events which have contributed to progress in the field of health education. Normally offered alternate years.
- 445 CURRENT TRENDS IN HEALTH EDUCATION (1-3)
Prerequisite: teaching experience. Seminars or workshops for the study of current health education topics. May be repeated with different topics.
- 447 COMMUNITY HEALTH (3)
Prerequisite: 10 credits in biology, health education, home economics, or Huxley. Analysis and application of models of health behavior; epidemiology of communicable and non-communicable diseases; transmission of infectious diseases; analysis of community, national and world health problems; involvement with governmental and voluntary health agencies; comprehensive health care models.
- 449 HEALTH EDUCATION IN ELEMENTARY SCHOOLS (3)
Prerequisites: Health Ed 349 and 350 or equivalent. Basic principles and application of methods in elementary school health instruction, curriculum resource materials, school health services.
- 450 HEALTH EDUCATION IN SECONDARY SCHOOLS (3)
Prerequisites: Health Ed 349 and 350 or equivalent. Basic principles and application of methods in secondary school health instruction; curriculum resource materials, school health services for secondary schools.
- 451 FIELD EXPERIENCE IN COMMUNITY HEALTH (16)
Prerequisites: Health Ed 349, 350, 447 and health science major (community health). Practicum in health-related community agencies. (S/U grading.)
- 452 FIRST AID INSTRUCTOR'S COURSE (2)
Prerequisite: current American Red Cross first aid certificate. Instructional methods, skills, resource materials applicable to teaching first aid. On completion of the course the student qualifies for American Red Cross certification in standard or advanced first aid.
- 460 HEALTH EDUCATION CURRICULUMS (2)
Prerequisite: teaching experience. Current health education curriculum designs will be analyzed. Application to instructional and learning experiences.
- 497f HEALTH EDUCATION TEACHING RESOURCES (3)
Prerequisite: teaching experience. Experience with newly prepared health education teaching resources relating to safety, poison prevention, preparenting, parenting, alcohol education, and body systems. (Summer, 1977.)
- 500 PROBLEMS IN HEALTH EDUCATION (2-5)
For the graduate student concerned with a special problem in the field.



PHYSICS & ASTRONOMY

College of Arts and Sciences

The undergraduate major provides a broad coverage of basic physical topics and principles and combines both lecture and laboratory work. Students may choose from one of a number of programs which allow different relative emphasis on physics and supporting mathematics, computer science or other science courses. Our strong astronomy program will be of particular interest to many students. Combined with the general education program, students are well prepared for a varied career choice, e.g. high school teaching, graduate study and research-development work in governmental and industrial laboratories. Admission requirements are flexible enough to accommodate students who are beginning college-level work in mathematics and physics as well as those who can be granted advanced placement and credit for service-related experience or accelerated high school science and mathematics programs. Similarly, community college students with technical and academic credit in general physics and calculus can enter these programs without

undue loss of credit and time.

The department has always given first priority to instruction and has acquired facilities, faculty and technical staff to support a strong curriculum including master's degree programs. Students have opportunity to participate in senior and graduate research projects in experimental nuclear and solid state physics, environmental pollution and in studies in theoretical physics.

The department provides an extensive program of student employment in laboratory instruction and technical work which provides valuable experience and financial support and promotes close association of faculty and students.

PHYSICS AND ASTRONOMY FACULTY

*W. LOUIS BARRETT (1968) Chairman,
Associate Professor, BS, University of Idaho; MS,
PhD, University of Washington.

- RICHARD A. ATNEOSEN (1968) Associate Professor. BS, MS, University of Minnesota; PhD, Indiana University.
- WILLARD A. BROWN (1956) Associate Professor. BS, University of Washington; MAT, Washington State University; EdD, University of Florida.
- MELVIN DAVIDSON (1967) Professor of Physics and Director of the Computer Center. AB, Whitman College; PhD, Rensselaer Polytechnic Institute.
- WILLIAM J. DITTRICH (1951) Associate Professor. BS, MS, University of Washington.
- RICHARD H. LINDSAY (1961) Professor. BS, University of Portland; MA, Stanford University; PhD, Washington State University.
- RAYMOND R. McLEOD (1961) Professor. BA, MA, University of British Columbia; PhD, Purdue University.
- **ALEX MAKSYMOWICZ (1969) Associate Professor. BS, Massachusetts Institute of Technology; PhD, University of California, Berkeley.
- ROBERT J. QUIGLEY (1970) Associate Professor. BS, MS, California Institute of Technology; MA, PhD, University of California, Riverside.
- AJIT S. RUPAAL (1964) Acting Chairman 1977-78. Professor. BSc, MSc, Panjab University; PhD, University of British Columbia.
- LESLIE E. SPANEL (1968) Associate Professor. BS, University of Missouri, Rolla; PhD, Iowa State University, Ames.
- DONALD L. SPRAGUE (1965) Associate Professor. BS, MS, PhD, University of Washington. Stephens Institute of Technology.
- RICHARD D. VAWTER (1968) Associate Professor. BS, Texas Technological University; MS, State University of Iowa; PhD, State University of New York.
- J. JOSEPH VEIT (1963) Professor. BSc, University of London; MSc, University of Birmingham; PhD, University of London.

Minor--Physics

27 credits plus Supporting Courses

- Physics 231 (or 131)
- Physics 331, 332 (or Physics 132, 133)
- Physics 381 and 384, Physics 235
- Physical Science 492 or Physics 492
- Electives, 3 credits (or 6 credits if Physics 131, 132, 133 is taken)
- Supporting courses: 14 credits in mathematics including calculus

Major Concentration--Physics-Mathematics

70 credits

This concentration provides depth leading to recommendation for teaching competence in both areas; it satisfies requirements for both a major and a minor.

- Mathematics 121 and Physics 231
- 20 credits in physics under departmental advisement
- 20 credits in mathematics under departmental advisement
- 20 additional credits including methods courses in one or both of these fields

Major Concentration--Chemistry-Physics

See Chemistry Department section of catalog for details.

BACHELOR OF ARTS IN EDUCATION

Recommendation for Teaching Competency

Students are certified for academic competency in physics upon completion of the physics minor or equivalent. Consultation with approval by the department chairman is required.

Employability will be enhanced if teaching competency in physical science or chemistry is also obtained.

Major--Physics

Secondary 45 credits plus Supporting Courses

- Physics 231
- Physics 235, 331, 332, 335 or 355, 381, 382, 384, 385, 398 (one credit)
- Physical Science 492 or Physics 492
- Electives under departmental advisement, 11 credits
- Supporting courses: 15 credits in mathematics including calculus

*On Sabbatical Leave 1977-78

**On Sabbatical Leave 1978-79

BACHELOR OF ARTS

Major--Physics

53 credits plus Supporting Courses

- Physics 231
- Physics 331, 332, 355, 371, 381, 382, 383, 384, 385, 386, 391, 392
- Either Physics 407 or Gen Sci 405
- Upper division electives, 6 credits, recommended are statistical mechanics, mechanics and optics
- Supporting courses: 35 credits in mathematics, including Math 121, 124, 125, 126, 224, 301 (or 201-202), 331, 332

Also recommended: reading knowledge of a foreign language and 10 credits in chemistry.

Minor--Physics

25 credits plus Supporting Courses

- Physics 231
- Physics 331, 332
- Physics 371 and either of 355 or 471; or Physics 381, 382, 384 and 385; or Physics 391 and 392
- Supporting courses: 18 credits in mathematics including Math 125

Physics & Astronomy

Minor—Astronomy

28 credits plus Supporting Courses

- Physics 231 (or 131)
- Physics 331, 332 (or 132, 133)
- Astronomy 315, 316, 317
- Physics 381

Major—Astronomy Emphasis

64 credits plus Supporting Courses

This concentration provides emphasis in astronomy and depth in physics courses that are relevant to astronomy.

- Physics 231
- Physics 331, 332, 335, 355, 381, 382, 383, 384, 385, 386, 407, 435, 441
- Astronomy 315, 316, 317, 416
- Upper-division electives: 6 credits recommended are statistical mechanics (462), quantum mechanics (391-392) and relativity theory (489)
- Supporting courses: 30 credits in mathematics and computer science including Math 121, 124, 125, 126, 301 (or 201-202), 331, 332
- Chemistry 121, 122

Major Concentration —

Physics-Mathematics 110 credits

This combined concentration provides depth in both fields and satisfies the requirements for both a major and a minor.

- Math 121 and Physics 231
- 100 credits in mathematics and physics under advisement

Recommended courses include Physics 331, 332, 371, 381, 382, 383, 384, 385, 386, 391, 392 and other upper-division electives; Computer Science 210; Math 125, 126, 301 (or 201, 202), 331, 332, and upper-division electives. Courses will normally be distributed equally between mathematics and physics, depending somewhat on the student's high school background. Ten to fifteen credits in related courses may be included.

Major Concentration —

Physics-Mathematics Honors Program

110 credits

This combined major satisfies requirements for a major and a minor. It is open to superior students; a grade average of 3.0 is required for admission to and continuation in this program. Apply for admission jointly to the departments of mathematics and physics during the second year of college study in lower division calculus and general physics.

- Math 121, 124, 125, 126, 224, 301, 312, 331, 332, 430, 431

- Computer Science 210
- 8 credits from approved 300 and 400 level mathematics courses (at least 4 credits in the latter)
- Physics 231, 331, 332, 371, 381, 382, 383, 384, 385, 386, 391
- 15 credits in upper-division physics courses, including Physics 392, 441, 442 or Physics 485, 486, 489
- Supporting courses: 5 credits under advisement

BACHELOR OF SCIENCE

Major 110 credits

- Physics 231
- Physics 331, 332, 335, 355, 371, 381, 382, 383, 384, 385, 386, 391, 392, 407, 462
- Math 124, 125, 126, 224, 301 (or 201 and 202), 331, 332
- Upper-division electives: 15 credits selected from 356 and 400 level courses excluding 492
- Supporting courses: 8 credits in computer science, chemistry, geology, or biology selected under advisement

DEPARTMENTAL HONORS

Physics majors who wish to graduate "with honors" should consult the department chairman for special requirements.

GRADUATE STUDY

For concentrations in physics and in physical science leading to the Master of Education and the Master of Science degrees, see *Graduate Bulletin*.

COURSES IN PHYSICS

Laboratory instruction is included in Physics 101, 132, 133, 235, 231, 331, 332, 335, 355, 356, 435, 455.

101 PHYSICS FOR THE LIBERAL ARTS (4)

A survey of our physical universe for non-science students. Various sections emphasize special topics such as household physics and environmental physics.

111a,b,c SPECIAL TOPICS IN PHYSICS AND PROBLEMS OF SOCIETY (2)

Selected topics in scientific subjects that are particularly important to our contemporary technological society.

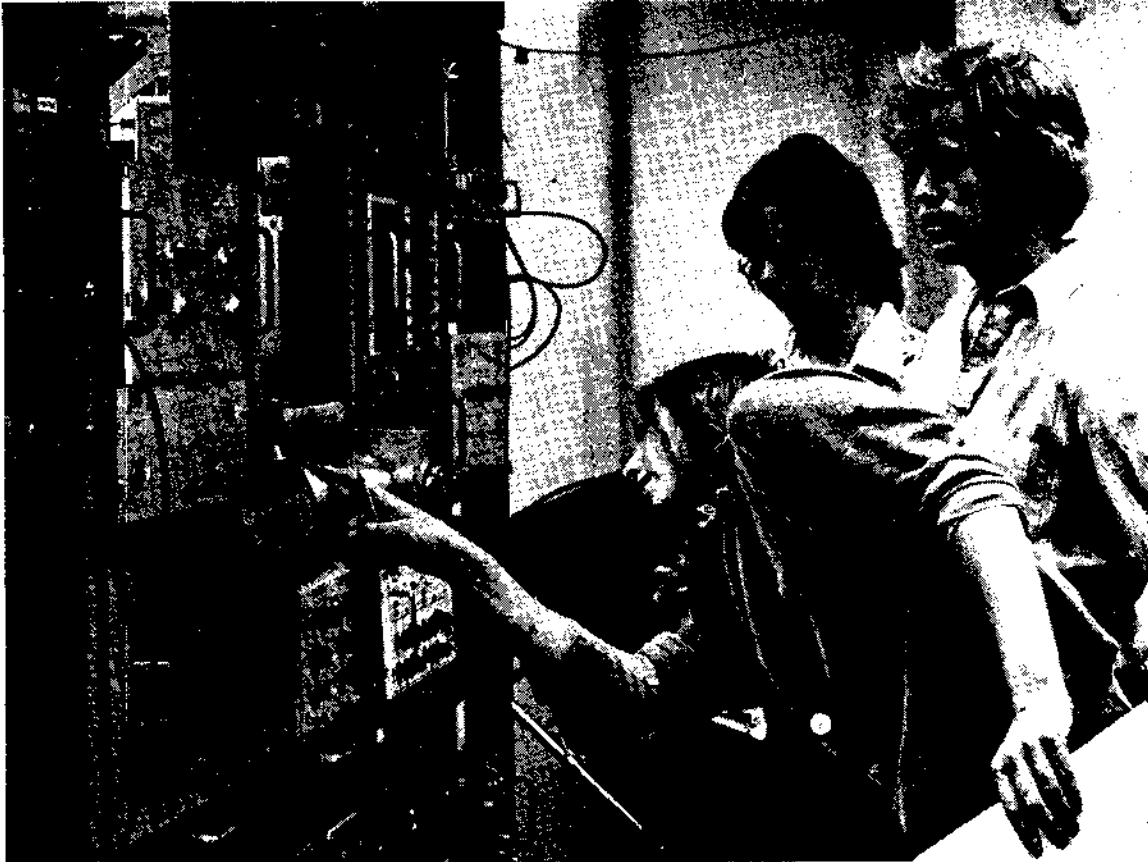
131 PRINCIPLES OF PHYSICS I (5)

Prerequisites: high school algebra and geometry or equivalent; concurrent enrollment in college-level algebra recommended. Description of motion, energy and pressure. Especially suited for earth, biological science students and those in the pre-medical program.

- 132 PRINCIPLES OF PHYSICS II (5)
Prerequisite: Physics 131. Heat and thermodynamics. Principles of electricity and magnetism. Laboratory introduces elementary electronics and measuring instruments.
- 133 PRINCIPLES OF PHYSICS III (5)
Prerequisite: Physics 132. Relativity, light and optical instruments, atomic and nuclear physics.
- 197a SOLAR ENERGY (2)
Prerequisite: one quarter of physics or astronomy. The nature of solar energy. Hydroelectric generation, wind energy conversion, space heating and cooling, water heating, photovoltaic conversion, thermal electric conversion, ocean thermal gradients, bio-conversion. The U.S. energy problem.
- 197b SCIENCE OF HIGH FIDELITY (2)
Introduction to high fidelity audio components. Fundamentals of electronics, acoustics and mechanics as applied to music reproduction. Evaluation, installation and operation of audio components.
- 231 GENERAL PHYSICS WITH CALCULUS (5)
Prerequisite: Math 124 (concurrent registration with department approval). Kinematics and dynamics of particles and rigid bodies.
- 235 GEOMETRICAL OPTICS (2)
Prerequisite: high school algebra and trigonometry. Reflection and refraction at plane and spherical surfaces; thin lenses and their aberrations; optical instruments; lecture and laboratory.
- 301 PHYSICS AND ENVIRONMENTAL PROBLEMS (3)
Prerequisite: general education science program. To acquaint the student with some of the specific details of contemporary problems in the area of nuclear energy, air and noise pollution and to show how the study of physics is relevant to the solution of these problems. Normally offered alternate years.
- 302 AIR QUALITY CONTROL INTERNSHIP (1-5)
Prerequisite: permission of department. Part-time internship with the Northwest Air Pollution Authority. Priority given to seniors; where the number of applicants exceeds the available intern positions, competitive selection will be made. Requests for internships should be filed with the department one quarter in advance of registration for this course.
- 306 THE PHYSICAL FOUNDATIONS OF MUSIC (4)
Prerequisite: junior standing. A non-mathematical introduction to the nature of sound. Particular attention will be given to the musical and physical aspects of sound phenomena. The acoustic and electronic methods of producing and modifying sound will be discussed. Some topics included are: the synthesis and analysis of musical instruments, the distinction between "natural" scales and the tempered scale. Laboratory. Also offered as General Science 306.
- 307 PHYSICS OF ELECTRONIC SOUND REPRODUCTION (3)
Prerequisite: junior standing. Discussion of storage (and retrieval) of complex sound waves on records and on magnetic tape. Principles of operation and discussion of performance of phonograph cartridges, different types of microphones, amplifiers and speakers. Impedance matching. Not intended for science majors.
- 311 RADIOLOGICAL PHYSICS (3)
Prerequisites: Physics 133 and Math 121. A course designed to provide the student with a working knowledge of radiation and its physical and biological effects. Radiation hazards to man and the environment from a variety of radiation sources will be discussed as well as the development of radiation protection standards and procedures. Normally offered alternate years.
- 321 ATMOSPHERIC PHYSICS (3)
Prerequisite: one year of college physics. A study of the structure, energetics and motion of the atmosphere especially as these processes relate to the diffusion and transport of air pollutants. Normally offered alternate years.
- 331 WAVES AND THERMODYNAMICS (5)
Prerequisites: Physics 231 and Math 125. Mechanical and acoustical waves; kinetic theory; classical thermodynamics.
- 332 ELECTRICITY AND MAGNETISM (5)
Prerequisites: Physics 331 and Math 126. Laws of electrostatics; d.c. circuits; magnetic fields of steady currents, magnetic induction, induced electromagnetic forces; magnetic properties of matter.
- 335 PHYSICAL OPTICS (4)
Prerequisites: one year college physics and Math 125. Interference; laser light and theory of coherence; interferometers; Fraunhofer and Fresnel diffraction; holography; polarization; laboratory. Normally offered alternate years.
- 355 FUNDAMENTALS OF ELECTRONICS (3)
Prerequisite: Physics 332 or concurrent (133 with permission of instructor). Solid state diodes and transistors, bipolar junction and FET transistors and transistor amplifiers. Laboratory. Normally offered alternate years.
- 356 ELECTRONIC CIRCUITS (3)
Prerequisites: Math 125, Physics 355. Multistage amplifiers, feedback and feedback oscillators, modulation and demodulation; laboratory. Normally offered alternate years.
- 361 THERMODYNAMICS (3)
Prerequisites: Physics 332 and Math 126. Kinetic theory and the laws of thermodynamics. Normally offered alternate years.
- 371 ELECTRIC AND MAGNETIC FIELDS (4)
Prerequisites: Physics 332 and Math 224. Integral and differential representation of electric and magnetic field laws; Maxwell's equations and propagation of electromagnetic waves in free space; alternating current and complex representation of alternating current and voltage; R-C, R-L, R-L-C circuits; power factor in A.C. circuits; and response to R-L and R-C circuits to applied step voltage. Normally offered alternate years.
- 380 MILESTONES IN MODERN PHYSICS (3)
Prerequisite: one college-level physics course. Important discoveries in modern physics will be discussed by reviewing original works in selected areas. Areas to be selected from include special relativity; discovery of nuclei, electrons, x-rays, elementary particles; atomic and nuclear models; Schroedinger wave equation and the uncertainty principle; fission and fusion. Not intended for physics majors. (Summer only.)
- 381, 382, 383 MODERN PHYSICS (4 ea)
Prerequisites: Physics 133 and Math 126; or Physics 332. (May be taken concurrently—permission of department required.) Concurrent enrollment in Physics 384-5-6 sequence required for physics majors and minors, recommended for others; to be taken in sequence. Theory of relativity; basic interactions of elementary particles; quantum properties of waves and particles; atomic models; quantum mechanics applied to atomic structure; multi-electron atoms; molecular physics, structure and property of solids; structure, properties, and decay of atomic nuclei; basic nuclear reactions.
- 384, 385, 386 MODERN PHYSICS LABORATORY (1 ea)
Prerequisites: Physics 381-2-3 sequence (or concurrent enrollment). Experiments in modern physics.

Physics & Astronomy

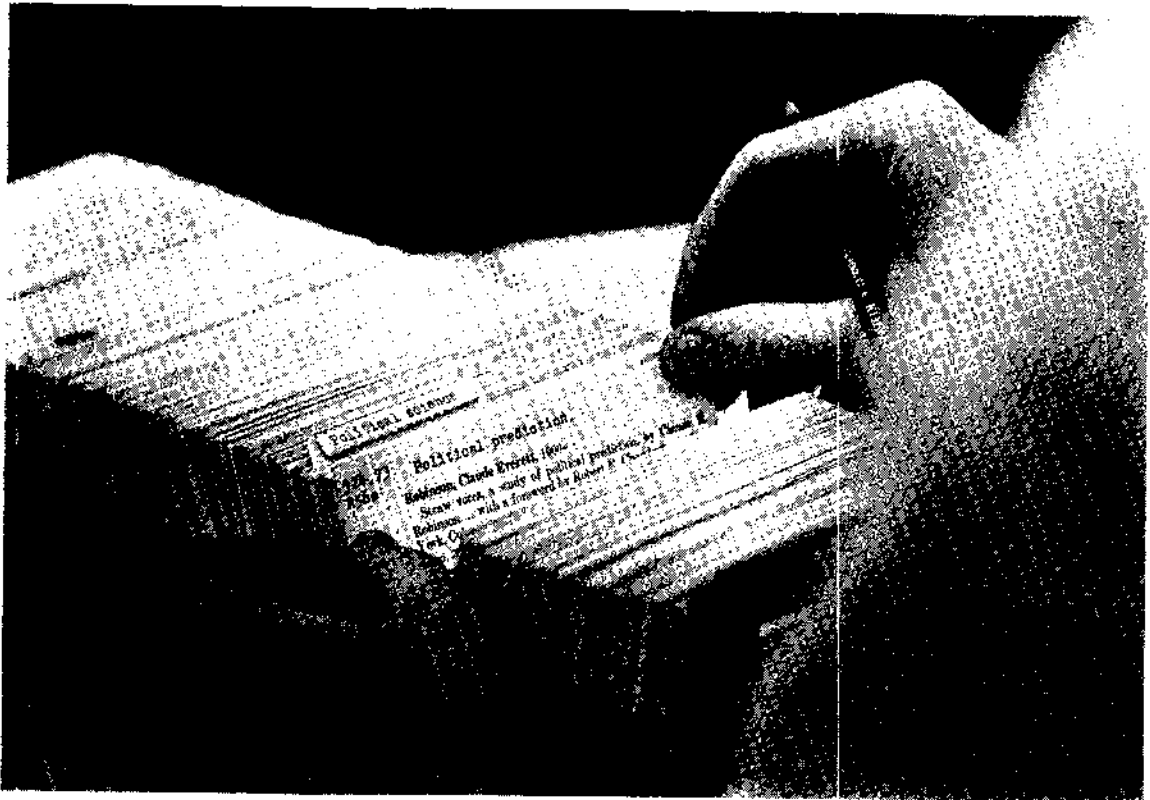
- 391 **QUANTUM MECHANICS I (4)**
Prerequisites: Physics 381, Math 331 (may be taken concurrently). Basic principles and postulates of quantum mechanics; solution of Schrodinger equation for one-dimensional systems, simple harmonic oscillator, and hydrogen atom. Normally offered alternate years.
- 392 **QUANTUM MECHANICS II (3)**
Prerequisites: Physics 391, Math 332 (may be taken concurrently). Stationary state and time-dependent perturbations; electron spin and identical particles; applications. Normally offered alternate years.
- 398 **LABORATORY DEVELOPMENT (1 ea quarter)**
Laboratory programs and instructional methods in general physics laboratories. Limited to maximum of three credits.
- 400 **SPECIAL PROJECT OR PROBLEMS (1-3)**
Prerequisite: permission of instructor. Special projects or independent study under supervision.
- 407 **HISTORY AND PHILOSOPHY OF PHYSICS (3)**
Prerequisite: one year college physics. Topics in the history and philosophy of physics; the relation of physics to other sciences, technology and society. Normally offered alternate years.
- 431 **INTRODUCTION TO SOLID STATE PHYSICS (4)**
Prerequisite: Physics 382. Phonons and lattice vibrations; free electron theory of metals; electrical conductivity; thermal properties; energy band theory; diamagnetism and paramagnetism. Normally offered alternate years.
- 435 **LASERS AND SPECTROSCOPY (3)**
Prerequisite: Physics 381. Theory of lasers; selected topics of modern optics with emphasis on coherence, interferometry and spectroscopy in the visible region; laboratory. Normally offered alternate years.
- 441, 442 **CLASSICAL DYNAMICS (3 ea)**
Prerequisites: Physics 332 and a course in differential equations. Lagrangian mechanics, perturbation techniques for dynamical systems, theory of oscillations, central forces and scattering theory. Normally offered alternate years.
- 451 **ELEMENTS OF NUCLEAR PHYSICS (3)**
Prerequisites: Physics 371, 383; Math 331. Basic nuclear properties, nuclear models; interaction of radiation with matter; radioactive decay; elementary nuclear reactions. Normally offered alternate years.
- 455 **PULSE AND DIGITAL ELECTRONICS (3)**
Prerequisites: knowledge of elementary electronics and permission of instructor. Applied digital electronics, practical applications leading to an understanding of truth tables, gates, counters, decoders, multiplexers, LED displays, flip flops, RAMS, and ROMS.
- 462 **THERMAL PHYSICS (3)**
Prerequisite: Physics 382. Laws of thermodynamics, macroscopic properties of matter; Maxwell, Fermi and Bose statistics; applications to gases, solids and astrophysics. Normally offered alternate years.
- 471 **ELECTROMAGNETIC THEORY (3)**
Prerequisites: Physics 371 and Math 331. Potential theory. Maxwell's field equations in dielectric and conducting media, propagation of electromagnetic waves in dielectric and conducting media; reflection and refraction at a boundary between two media, rectangular wave guide. Relativistic electromagnetics. Normally offered alternate years.
- 485, 486 **MATHEMATICAL METHODS OF PHYSICS (3 ea)**
Prerequisites: 20 credits in physics; Math 331 and linear algebra. Physical applications of linear vector spaces and operators with emphasis on Fourier transform; Green's functions, and other special functions (Legendre, Bessel, gamma, erf, etc.). Physics 486— Introduction to and physical applications of group theory, probability theory and numerical analysis. Normally offered alternate years.
- 489 **RELATIVITY THEORY (3)**
Prerequisites: 24 credits in physics including Physics 381; Math 332. Special relativity is reviewed including the Lorentz-Einstein transformation of Maxwell's equations. Tensor analysis and Riemannian geometry is entered into sufficiently to sketch the four major Einstein predictions: (1) advance of the perihelion of planetary orbits; (2) the bending of light in a gravitational field; (3) the Einstein red shift; (4) retardation of light in a gravitational field. Normally offered alternate years.
- 492 **HIGH SCHOOL PHYSICS PROGRAMS (3)**
Prerequisites: general physics; Physics 381 (or concurrent). Materials and methods of curricula such as PSSC and HPP.
- 498 **RESEARCH PROJECTS IN PHYSICS (6)**
Prerequisite: permission of instructor. Investigation of a problem in physics under the sponsorship and supervision of the physics faculty; project must extend over a minimum of two quarters.
- 500 **SPECIAL PROBLEMS IN ADVANCED PHYSICS (1-3)**
Prerequisites: graduate standing and permission of the instructor. Detailed study of a special problem in physics.
- 531, 532 **SOLID STATE PHYSICS (3 ea)**
Prerequisite: Physics 431 or equivalent. Physics 531 prerequisite to 532. Crystal structure and reciprocal lattice space; dielectric properties; ferroelectric crystals; magnetism and superconductivity.
- 541 **HAMILTONIAN DYNAMICS (3)**
Prerequisites: 45 credits in physics including Physics 442. Variational principles; Hamilton's equations; canonical transformation theory.
- 542 **SPECIAL TOPICS IN MECHANICS (3)**
Prerequisite: Physics 541.
- 551, 552 **NUCLEAR THEORY (3 ea)**
Prerequisite: 45 credits in physics including Physics 451 or equivalent; Physics 551 prerequisite to 552. Theory and experimental basis for the structure of the atomic nucleus and nuclear properties and reactions.
- 571 **ELECTRODYNAMICS (3)**
Prerequisites: 45 credits in physics including Physics 471. Electromagnetic waves; wave guides and resonant cavities; radiation.
- 572 **SPECIAL TOPICS IN ELECTROMAGNETIC THEORY (3)**
Prerequisite: Physics 571.
- 581 **QUANTUM THEORY (3)**
Prerequisites: 45 credits in physics including Physics 392 or equivalent. Interaction of radiation with matter; approximation methods in quantum theory; scattering theory.
- 582 **SPECIAL TOPICS IN QUANTUM THEORY (3)**
Prerequisite: Physics 581.
- 598 **GRADUATE SEMINAR (1-3)**



- 690 RESEARCH (3-12)
Prerequisite: permission of instructor and department chairman. Investigation of an original problem in physics under supervision terminating in a master's thesis.
- 699 SPECIAL PROBLEMS IN ADVANCED PHYSICS (3-6)
Prerequisites: graduate standing and permission of instructor. Detailed study of a special problem in physics.

COURSES IN ASTRONOMY

- 103 ASTRONOMY FOR THE LIBERAL ARTS (4)
A survey of astronomy including the solar system, stellar evolution, galactic structure and cosmology. Not recommended for science majors.
- 123 RELATIVITY FOR NON-SCIENTISTS (2)
Prerequisite: mathematics entrance exam or equivalent. Basic evidence for and consequences of the theory of relativity with applications to astronomy. Space-time events, the twin paradox, curved space, black holes and the expanding universe.
- 190 ASTRONOMY AND RELATIVITY THEORY WORKSHOP FOR HIGH SCHOOL STUDENTS (5)
Prerequisites: intended for, but not restricted to, students who have completed the junior year of high school; high school students must submit a letter of recommendation from a high school science or mathematics teacher. Not open to students with previous college-level credit in physics or astronomy. S/U grading. (Summer only.)
- 315 SOLAR SYSTEM ASTRONOMY (4)
Prerequisite: Physics 131 or 231 or equivalent. Study of the structure and evolution of the solar system. Topics include: our sun as a star, planets, planetary satellites, asteroids, comets, eclipses, planet motions and atmospheres.
- 316 STELLAR ASTRONOMY (4)
Prerequisite: Physics 131 or 231 or equivalent. Study of the structure, evolution and motion of the stellar systems such as binary stars, nebula, planetary star systems, star clusters and galaxies. Other topics will include neutron stars, black holes, pulsars, quasars, supernova and cosmic rays.
- 317 COSMOLOGY (3)
Prerequisites: completion of three credits of college astronomy and three credits of college physics; one and one-half years of high school algebra or equivalent. Study of the various theories of the origin and evolution of the universe.
- 333 EXTRATERRESTRIAL LIFE (3)
Prerequisite: three credits of college physics or astronomy. Life in and beyond the solar system; interstellar intelligence and communication; radio search for extraterrestrial life; life detection experiments; problems of interstellar travel.
- 400 SPECIAL PROJECTS OR PROBLEMS (1-3)
Prerequisite: permission of instructor. Special projects or independent study under supervision.
- 404 TELESCOPE DESIGN AND CONSTRUCTION (1-3)
Prerequisites: Astronomy 204 and upper-division standing. Design and construction of a telescope including optical design and lens grinding.
- 415 GALACTIC ASTRONOMY (3)
Prerequisite: Astronomy 316. Radio signals from space, molecules between the stars; exploding galaxies; quasars and pulsars; radio cosmology; structured galaxies. Normally offered alternate years.
- 416 ASTROPHYSICS (3)
Prerequisites: Physics 381, 382, 383, and two quarters of calculus. Theories of stellar processes and stellar evolution. Normally offered alternate years.
- 498 SEMINAR ON CURRENT TOPICS IN ASTRONOMY (1-3)
Prerequisite: three credits in college astronomy at 200 level or higher. Investigation and discussion of current topics in astronomy.



POLITICAL SCIENCE

College of Arts and Sciences

THE DISCIPLINE

Whether we like it or not, government affects every part of our lives—what taxes we pay, what news we may hear, what wars (if any) we fight, the quality of the food we eat, water we drink, air we breathe—ultimately, whether we live or die. Many other questions which at times may loom large in our lives are decided by government: whether workers may organize into unions, whether marijuana smokers will go to jail, whether abortion is a crime.

It should not come as a surprise to learn that political science is one of the oldest fields of academic inquiry. The systematic investigation of government was going on in ancient Greece long before many of the other fields we today call "science" got their start. This is only logical, since the form of government determines whether there even will be free inquiry, and the political process

determines whether resources will be set aside for the study of molecules and atoms. Even the purest mathematician and the most theoretical physicist must know something about how government operates and how it influences them if they are to have any hope of influencing it.

Courses in political science attract many kinds of students, including those who want to become specialists in the art and science of government; perhaps even those who want to run for governor 20 years from now. It also attracts those who seek immediate post-graduate employment in the vast field of public and private organizations dealing with government. And it attracts those who wish to learn to become competent and effective citizens.

THE DEPARTMENT

The Department of Political Science is one of

unusual breadth of interest, approaches to the study of political science, academic backgrounds, ideological orientations and fields of specialized interests. An examination of the course descriptions will illustrate that there are few areas of human concern in regard to political systems which are not treated.

The specialized interests of departmental members are so broad as to limit detail here. Some are particularly interested in relations among nations, including war and peace, espionage and international organizations. One emphasizes international law, including environmental law. Others are specialists in a particular area, such as East Asia, Africa, North America or Europe. Still others are especially interested in the study of political parties, interest groups, government administration, problems of poverty and minorities in relation to government, legislative systems, and the judiciary, with emphasis on decisions of the Supreme Court of the United States. The Presidency is closely examined, as are state and local legislative bodies, executives, courts and political processes. Environmental politics and administrations are also considered. Political theory receives detailed study, both in several historical periods and in its contemporary and empirical aspects.

SPECIAL PROGRAMS

The department has several special programs of which students should be aware. It is an integral part of the Canadian-American studies program, which presently offers a minor. It is equally involved in the East Asian studies program, which provides a minor. Other special programs include the pre-law program, public policy and administration, social studies education program, and those related to the law enforcement assistance program, having particular concern in training persons in the area of law enforcement and criminal justice. For several years, also, the department has been closely involved with the Washington State Legislature, having a number of legislative internships which allow a student to work closely with a legislator during the yearly sessions. There are also summer administrative internships which the department may assist students in obtaining. Students may also intern in governmental offices in Whatcom County.

TO WHAT CAREERS MAY POLITICAL SCIENCE LEAD?

So you complete a political science major. What can you do with your major in vocational terms?

Run for President? Obviously. Such former political science majors as Woodrow Wilson and John F. Kennedy have made it. Others, like Hubert Humphrey, have tried, and obtained at least the Vice-Presidency. Still others, perhaps now in Congress, are among those to be considered in the future. At a less exalted level, one may contest for many offices in state and local, as well as national, government.

For those who prefer not to hold elective office (or who do not succeed), there are tens of thousands, indeed millions, of jobs at all levels of the United States' many political systems. Whether an appointive administrative post or in elective office, there are many possible avenues of employment and career satisfaction for those in political science. Many students go on to law school, where their pre-law program in political science is often a strong factor in their success.

Research and executive positions are found in a variety of organizations interested in influencing or improving government. For example, organizations representing various industries, farmers groups, or war veterans; labor organizations; taxpayers' associations and chambers of commerce; "good government" leagues, the National Municipal League, and the National Civil Service League; leagues of municipalities or other units of local government; the Council of State Governments; and citizen-supported or university-sponsored bureaus of governmental research.

Beyond these aspirations, there are possibilities for graduate study in political science, leading to a Master of Arts degree at Western or elsewhere, and a Ph.D. in those institutions offering that degree. A career in teaching at levels including junior and senior high school, or teaching and research at the university level, are all possible for those who have had extensive exposure to political science.

Many political science graduates go into business. They enter into international companies such as American Express or are employed by various air lines. They enter banks, insurance companies, real estate agencies, industries and other enterprises closely involved with government. Others enter related governmental fields such as planning, personnel, budgeting and research. Some become city managers. A very few have reached into the White House itself, as perhaps a liaison officer to the Congress for higher education, or into the Office of Management and Budget in the executive office of the President. It should be noted that a professional political scientist, Dr. Henry Kissinger, has earned the stature of perhaps the second most powerful figure in the United States government. Many others high in the federal, state, and local bureaucracies come from a major and perhaps graduate study in political science.

Political Science

POLITICAL SCIENCE FACULTY

- RALPH E. MINER (1970) Chairman. Associate Professor. BA, San Jose State College; MA, PhD, University of Oregon.
- ALFRED S. ARKLEY (1970) Assistant Professor. AB, Harvard College; MA, Columbia University; MA, PhD, Michigan State University.
- MICHAEL W. BARNHART (1968) Assistant Professor of Political Science and Executive Assistant to the President. BA, Western Washington State College; MA, PhD, University of Washington.
- DAVID E. CLARKE (1966) Associate Professor. BA, MA, Trinity (Cambridge); PhD, Stanford University.
- JAMES W. DAVIS (1974) Professor and Dean of the College of Arts and Sciences. BA/Ed, Valley City State; MA, PhD, University of Minnesota.
- MAURICE H. FOISY (1970) Associate Professor. BA, Gonzaga University; MA, Georgetown University; PhD, University of Oregon.
- JOHN J. HEBAL (1962) Associate Professor. PhB, University of Wisconsin; MA, University of Alabama; PhD, University of Minnesota.
- EUGENE J. HOGAN (1969) Assistant Professor. BA, Gonzaga University; MA, Georgetown University; PhD, University of Oregon.
- *ELLIS S. KRAUSS (1970) Associate Professor. AB, Brooklyn College of the City University of New York; MA, PhD, Stanford University.
- GERARD F. RUTAN (1969) Professor. BA, MA, University of Montana; PhD, University of North Carolina at Chapel Hill.
- HENRY G. SCHWARZ (1969) Professor of Political Science and History. BA, MA, PhD, University of Wisconsin.
- JOHN J. WUEST (1960) Professor. BS, MS, University of Southern California; PhD, University of California, Los Angeles.
- DAVID W. ZIEGLER (1967) Associate Professor. BA, Oberlin College; MA, PhD, Harvard University.

The department's faculty and staff are most open to questions about the program and its career potential. Persons seeking more information should visit the department in Arntzen Hall, or telephone (206) 676-3468. Written inquiries should be directed to the Department of Political Science, Western Washington State College, Bellingham, Washington 98225.

BACHELOR OF ARTS

Major 65 credits

- Political Science 250
- Additional credits selected from not fewer than four of the areas listed below; at least 20 credits in one area; at least 10 credits in another area. No course may be counted in more than one area.

Comparative Politics: Political Science 291, 301-309, 343, 365 or 366, 372, 402, 406, 416, 417a, 417b, 417c, 417d, 417h, 430, 431, 432

Politics and Government: Political Science 340, 343, 345, 346, 353, 365 or 366, 417a, 423, 426, 427, 429, 440, 441, 443, 445b, 450, 455, 480, 481, 497c

*On Sabbatical Leave 1978-79 (two quarters)

Public Policy and Administration: Political Science 320, 346, 353, 365 or 366, 413, 414, 415, 417g, 420, 421, 422, 423, 424, 425, 426, 427, 429, 444a,b, 481

Public Law: Political Science 311, 313, 365 or 366, 410, 411, 413, 415, 416

Political Theory: Political Science 360, 365, 366, 417f, 424, 460, 461, 462, 463, 464, 465, 467, 480, 481

International Relations: Political Science 270, 305, 365 or 366, 376, 411, 417a, 417b, 417c, 417d, 445a, 470, 476

Minor 25 credits

- Political Science 250
- Remaining credits from at least 2 areas

Minor—Canadian and

Canadian American Studies 30 credits

Program Adviser: Dr. Gerard Rutan

See Interdepartmental Programs section for specifications.

Minor—East Asian Studies 30 credits

Program Adviser: Dr. Henry Schwarz

This may be added to the major for a major concentration.

See Interdepartmental Programs section for specifications.

Major-Minor Concentration—Public Policy and Administration 99 credits, minimum

Program Adviser: Dr. Maurice Foisy

Students majoring in political science having a particular interest in governmental administration may choose a concentration in public policy and administration as an alternative to the 65-credit major. This option entails a major program with preparation relevant to problems and techniques of policy and administration in public agencies.

The total course requirement of 99-119 credits, depending upon course options selected, satisfies both a major and a minor in political science.

- English 101 (subject to waiver, see General College Requirements) and 301 or 302 or 401
- Speech 204 or 488
- Anthropology 201 or Sociology 202
- Psychology 201, and 320 or 315
- Economics 201
- Mathematics 250 (Math 103 or qualifying exam a prerequisite)

- Accounting 251, 252, 356
- Political Science 250, 313 or 410 or 413, 320, 353, 365, 423, 427, 429 or 465, and 463
- Plus *one* course from *each* of the following groups:
 - (1) Business Administration 301, 401, or Political Science 424
 - (2) Business Administration 322 (BA 301 a prerequisite), Political Science 417g or 422
 - (3) Political Science 346, 420, 421, 467, or Huxley 430, or one course from the College of Ethnic Studies
 - (4) Political Science 414, 425, 426, Economics 410 (Econ 202 or permission of instructor required), or 442 (Econ 202 or permission of instructor required)
 - (5) Political Science 440, 441, 443, 444a

Students choosing the public policy and administration concentration are encouraged to complete Math 251 and 252 as electives within their total programs.

Modifications in the above program can be made through the public policy and administration adviser for those individual students having previous credit or work experience in areas covered by the listed courses.

Legislative internships are awarded on a competitive basis. See Pol Sci 443 catalog description.

Where possible, students choosing the public policy and administration concentration will serve in administrative internships in federal, state, or local government agencies. Credit toward the concentration for such internships is limited to a maximum of 10 credits with 5 of these in lieu of 5 credits from certain political science 300-400 courses. These arrangements must be made one quarter in advance on an individual basis through the public policy and administration adviser in the Political Science Department. See Pol Sci 444a,b catalog description.

BACHELOR OF ARTS IN EDUCATION

Program Adviser: Dr. Alfred S. Arkley

The Political Science Department has two programs and participates in another for the student who is preparing to teach at the elementary and secondary levels. These programs are designed to help the student to achieve the following objectives:

1. To learn the basic concepts of political science.
2. To know, to evaluate and be able to utilize current political science curricula.
3. To relate political socialization research to social studies education.

Those preparing for secondary school teaching

may take either the political science - social studies major-minor concentration or the political science minor. Those preparing for elementary school teaching may take the political science courses which satisfy the academic study in-depth requirement for the elementary teacher professional concentration.

Major-Minor Concentration--

Political Science-Social Studies 96 credits

Political science-social studies for junior and senior high school teachers.

- Political Science--53 credits: Political Science 101, 250, 270, 291, 311, 320, 481, 482; political science electives under advisement to total 13 credits (Note: Pol Sci 482 is not offered every year--substitute Social Studies Ed 426 when Pol Sci 482 is not in current year's schedule)
- History--23 credits: History 391; history electives under advisement to total 20 credits
- Social Science--20 credits: electives under advisement from anthropology, economics, geography, psychology and sociology

(Completion of this program with a minimum 2.5 grade point leads to teaching competency recommendations for both political science and the social studies.)

Minor 35 credits

- Political Science 101, 250, 270, 481, 482 (Note: Pol Sci 482 is not offered every year--substitute Social Studies Ed 426 when Pol Sci 482 is not in current year's schedule)
- Electives under departmental advisement to total 10 credits

(Completion of this minor with a minimum 2.5 grade point leads to a teaching competency recommendation in political science.)

Minor--East Asian Studies 30 credits

See Interdepartmental Programs section for specifications.

Minor--Canadian and

Canadian American Studies 30 credits

See Interdepartmental Programs section for specifications.

DEPARTMENTAL HONORS

In addition to the general requirements for all honors students, a political science major who wishes to graduate "with honors" must complete:

Political Science

Political Science 496 with the advice of the departmental honors adviser and two years of foreign language (or a satisfactory reading knowledge of a foreign language). He must also submit a senior thesis and have a grade average of 3.5 in upper-division political science courses.

INTERNSHIPS

Students are encouraged to obtain internships in state, local, or national government agencies, political parties, and interest groups. Credit may be obtained by prior arrangement. The academic relevance and adequacy must be determined by the department through a written evaluative report.

GRADUATE STUDY

For concentrations in political science and public policy and administration leading to the Master of Arts degree, see *Graduate Bulletin*.

COURSES IN POLITICAL SCIENCE

- 101 GOVERNMENT AND POLITICS IN THE MODERN WORLD (5)
Introduction to concepts of politics; types of governments, and political problems in the world today.
- 170 A CITIZEN'S GUIDE TO FOREIGN POLICY (5)
Issues and trends in international politics; United States foreign policy and how it is made; public influence on policy; sources of information on current events.
- 287, 337, 437 FOREIGN STUDY (2-5)
Prerequisite: Pol Sci 101 or equivalent. A study of political science topics particularly appropriate to the location of the course offering. These courses are offered only through the WWSO Study Abroad program. Contact Foreign Study Office, Miller Hall 353, for information.
- 250 THE AMERICAN POLITICAL SYSTEM (5)
Consideration of the system and process of American politics and government with primary focus on the national level.
- 270 INTRODUCTION TO INTERNATIONAL POLITICS (5)
Interaction of states and other factors in the international system in terms of basic relationships of war and peace.
- 291 INTRODUCTION TO COMPARATIVE POLITICS (5)
Basic structures, functions, and socio-cultural environments of foreign political systems; methods of comparative study.
- 301 BRITISH MODEL PARLIAMENTARY SYSTEMS (5)
Prerequisite: Pol Sci 101 or 250 (or Gen St 200 with permission of instructor) or 291. Introduction to Parliamentary political systems; analysis of selected structures; examination and comparison of selected parliamentary polities.
- 302 WESTERN EUROPE (5)
Prerequisite: Pol Sci 101 or 291. Governments and politics of selected western European states.
- 303 SOVIET UNION AND EASTERN EUROPE (5)
Prerequisite: Pol Sci 101 or 291. The political system of the Soviet Union and other communist states in Eastern Europe.
- 304 LATIN AMERICA (5)
Prerequisite: Pol Sci 101 or 291. Political, socio-economic and cultural problems of Latin America.
- 305 INTERNATIONAL POLITICS IN THE MIDDLE EAST (3)
Prerequisite: Pol Sci 101 or 170 or 270. The interplay of Zionism and Arab nationalism; the individual and collective responses of the Arab states to the creation of Israel.
- 307 EAST ASIA (5)
Prerequisite: Pol Sci 101 or 291. Survey course covering China, Japan, and Korea since the mid nineteenth century.
- 308 SUB-SAHARAN AFRICAN POLITICAL SYSTEMS (5)
Prerequisite: Pol Sci 101 or 291. Politics of independent black African states with emphasis on nation-building and economic development; governments of white dominated southern portion. Not offered every year.
- 309 SOUTHEAST ASIA (5)
Prerequisite: Pol Sci 101 or 291. Selected political systems.
- 311 JURISPRUDENCE (5)
Prerequisite: Pol Sci 250 (or Gen St 200 with permission of instructor). An introduction to the origins of the legal and juridical systems found in the Western world; emphasis upon jurisprudential development, philosophies, and legal structures. Examination of legal reasoning, terminology, and concepts.
- 313 AMERICAN CONSTITUTIONAL LAW (5)
Prerequisites: Pol Sci 250 and upper-division standing. Significant Supreme Court decisions in interpreting major parts of the Constitution. Emphasis on the development of constitutional law in the areas of separation of powers, federal division of powers, and individual civil rights.
- 320 PUBLIC ADMINISTRATION (5)
Prerequisite: Pol Sci 250 (or Gen St 200 with permission of instructor), or one course from Psych 201 or 340, Econ 201, or BA 101. Consideration of contemporary concepts of organizational structure and behavior, administrative processes and procedures, and individual behavior in complex public organizations.
- 340 POLITICAL PARTIES (5)
Prerequisite: Pol Sci 250 (or Gen St 200 with permission of instructor). The origin, development, structure, organization, and activities of political parties. Various party theories are presented and discussed in the light of current political conditions and changing patterns of political participation and political leadership.
- 343 POLITICAL COMMUNICATION (5)
Prerequisite: Pol Sci 101 or 250 (or Gen St 200 with permission of instructor). Channels of communication in politics as they affect policy-making, political and electoral behavior, and political development; the role of face to face communication, communication within and between political organizations, the media, political polling, and political propaganda in the political process.

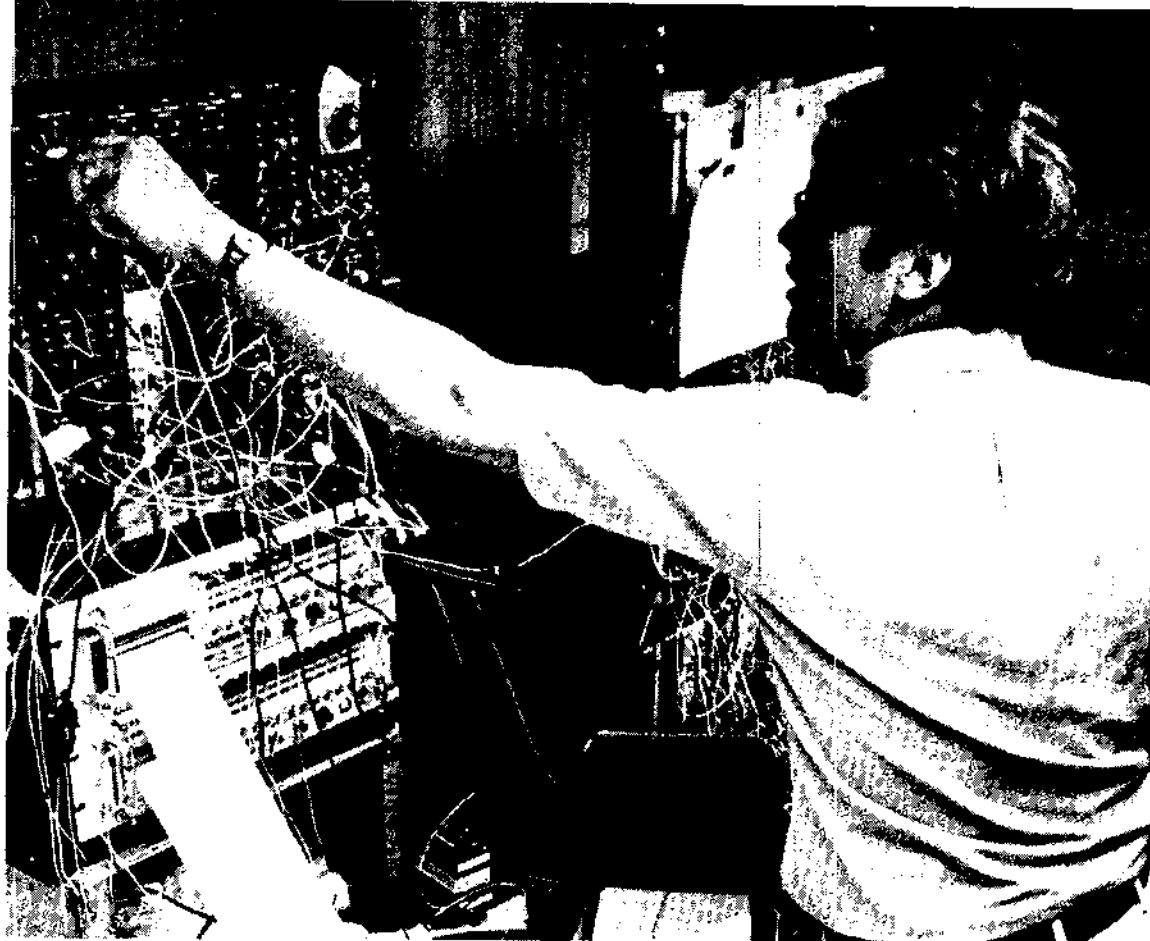
- 345 **WOMEN AND POLITICS (3)**
Prerequisite: Pol Sci 101 or 250 (or Gen St 200 with permission of instructor). Exploration of the history and current ideas of women's organizations. Investigation of the changing role of women in American politics including legal status, economic position, and political behavior. Not offered every year.
- 346 **POVERTY, MINORITIES, AND GOVERNMENT (5)**
Prerequisite: Pol Sci 250 (or Gen St 200 with permission of instructor). Federal, state, and local programs affecting minorities and the poor especially in large city ghettos; some emphasis on Washington State.
- 353 **STATE AND LOCAL POLITICAL SYSTEMS (5)**
Prerequisite: Pol Sci 250 (or Gen St 200 with permission of instructor). Sub-national levels of government and intergovernmental relations; developing and administering policies for problems of race, population, pollution, crime, poverty, housing, resource depletion.
- 360 **INTRODUCTION TO POLITICAL THEORY (5)**
Prerequisite: Pol Sci 101 or 250 (or Gen St 200 with permission of instructor). Origin and evolution of major concepts of political theory.
- 365 **POLITICAL INQUIRY (5)**
Prerequisite: Pol Sci 101 or 250 (or Gen St 200 with permission of instructor). Introduction to methods of political analysis with emphasis upon the contribution of science and philosophy to political knowledge and political action. Techniques for identifying and defining problems for analysis.
- 366 **RESEARCH IN POLITICS (5)**
Prerequisite: Pol Sci 101 or 250 (or Gen St 200 with permission of instructor). Fundamentals of research design, including basic methods for the collection and analysis of political data.
- 372 **POLITICAL CHANGE: AN INTRODUCTION TO POLITICAL DEVELOPMENT (5)**
Prerequisite: Pol Sci 101. Basic concepts such as modernization, social mobilization, institutionalization examined in a few selected countries.
- 376 **AMERICAN FOREIGN POLICY (5)**
Prerequisite: Pol Sci 250 or 270. Background organization of American foreign policy; the conduct of diplomatic relations with other states; current issues and problems in foreign affairs.
- 400 **SELECTED READINGS AND RESEARCH (2-5)**
Prerequisite: permission of department. Supervised readings and/or research in a selected area of political science.
- 402 **REGIONAL EUROPEAN SOCIETY AND POLITICS (3)**
Prerequisite: Pol Sci 101 or 291. Government and society in selected countries from the Scandinavian, Alpine, Benelux and Iberian European regions.
- 406 **CANADA (5)**
Prerequisite: Pol Sci 250 (or Gen St 200 with permission of instructor) or 291. Canadian social and political systems; governmental structures and functions; social, political, economic problems and foreign relations.
- 410 **LAW AND SOCIETY (5)**
Prerequisite: Pol Sci 250 (or Gen St 200 with permission of instructor). A comparative study and analysis of public policy on outstanding contemporary socio-political issues.
- 411 **INTERNATIONAL LAW (5)**
Prerequisite: Pol Sci 270. Origin, principles, and problems. Not offered every year.
- 413 **LAW AND PUBLIC ADMINISTRATION (5)**
Prerequisites: Pol Sci 313 and 320. Consideration of the relationships between the law, organizational behavior, and the public administrative process. Consideration of law in relation to agency mission, agency interests, and strategies of program implementation. Not offered every year.
- 414 **THE REGULATORY PROCESS (3)**
Prerequisite: Pol Sci 320. Administrative regulation in relation to the political process. Not offered every year.
- 415 **CRIMINAL JUSTICE SYSTEMS (3)**
Prerequisite: permission of instructor. Introduction to the study and practice of law, with particular reference to the formulation of criminal law, law enforcement, judicial administration, and the administration of penal and corrective policy in the United States.
- 416 **COMPARATIVE LEGAL CULTURES (3)**
Prerequisite: Pol Sci 311 or 313. Contemporary foreign legal cultures/systems, e.g., in Great Britain (common law tradition), France (continental European civil law tradition), USSR (socialist law), compared/contrasted with the U.S. legal culture/system, etc.; and specific or functionally selected aspects of them and trans-national legal problems.
- 417 **SEMINARS IN SPECIAL PROBLEMS (3 ea)**
417a State Policy, Espionage, and Intelligence Utilization
Prerequisite: permission of instructor.
417b Seminar in International Politics
Prerequisite: Pol Sci 270.
417c Contemporary Latin American Issues
Prerequisite: Pol Sci 304.
417d Selected Problems in East Asian Politics
Prerequisite: Pol Sci 307.
417f Political and Social Simulations
417g Modern Bureaucratic Politics
Prerequisite: Pol Sci 320.
417h Contemporary Canadian Politics
(Not offered every year.)
- 420 **ENVIRONMENTAL POLITICS AND ADMINISTRATION (5)**
Prerequisite: Pol Sci 320. Problems in air and water pollution, forest policies, food supply, minerals, recreation and wilderness areas, and power. Not offered every year.
- 421 **METROPOLITAN AREA GOVERNMENT (5)**
Prerequisite: Pol Sci 353. Decision-making structures of central city and suburban political systems; regional interaction, federal-state-local relations; problems related to minorities, poverty, and growth.
- 422 **STAFFING THE PUBLIC BUREAUCRACY (5)**
Prerequisite: Pol Sci 320. Comparative analysis of public personnel systems in selected countries, with special attention to the United States; general principles of public administration and specialized aspects such as recruitment, training, and employee morale. Not offered every year.
- 423 **THE AMERICAN PRESIDENCY (3)**
Prerequisite: Pol Sci 250 (or Gen St 200 with permission of instructor). 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.
- 424 **THEORY OF PUBLIC ORGANIZATIONS (5)**
Prerequisite: Pol Sci 320. Consideration of organization theory as related to public organizations and the political system.
- 425 **THE BUDGETARY PROCESS (5)**
Prerequisite: Pol Sci 320. Consideration of public budgeting as both a political and administrative process.

Political Science

- 426 **POLITICS AND PUBLIC FINANCE (5)**
Prerequisite: Pol Sci 250 (or Gen St 200 with permission). Consideration of the American political system as it relates to the development and maintenance of the structure of taxation and the distribution of governmental benefits.
- 427 **POLICY-MAKING AND POLICY ANALYSIS (5)**
Prerequisite: Pol Sci 250 (or Gen St 200 with permission of instructor). Consideration of the relationships between political, economic and social inputs into policy-making systems and the nature and consequences of policy outputs for various groups and sectors of the polity. Particular attention is paid to the possibility and problems of objective analysis conducted from within the boundaries of the subject political system.
- 429 **ADMINISTRATION AND DEMOCRACY (5)**
Prerequisite: Pol Sci 320. Relationships of various administrative forms, processes, and behaviors to varying theoretical conceptions and empirical descriptions of democracy. Not offered every year.
- 430 **MODERN CHINESE POLITICS (5)**
Prerequisite: Pol Sci 307. Governments and political movements in the twentieth century.
- 431 **MODERN JAPANESE POLITICS (5)**
Prerequisite: Pol Sci 291 or 307. Politics and government since the Meiji Restoration. Japan as a case study of political development; political, socio-economic, and cultural problems in contemporary Japan.
- 432 **MODERN KOREAN POLITICS (3)**
Prerequisite: Pol Sci 307. The development of modern Korean political systems from the 19th century to the present. The contemporary political systems of both North and South Korea will be considered. Not offered every year.
- 440 **STATE LEGISLATURES (5)**
Prerequisite: Pol Sci 353. Interaction of elected executives, legislators, administrators, political parties, pressure groups, the press, and public in the legislative process at the state level, with some emphasis on Washington State.
- 441 **CONGRESS: PEOPLE AND POLITICS (5)**
Prerequisite: Pol Sci 250 (or Gen St 200 with permission of instructor). The politics and policies of the National Congress in the internal organization of the U.S. Senate and House of Representatives and in their external relations with the President, the bureaucracy, interest groups, and the voters.
- 443 **LEGISLATIVE INTERNSHIP (5-15)**
Prerequisite: permission of department. 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.
- 444a,b **ADMINISTRATIVE INTERNSHIP (5, 5)**
Prerequisite: two courses in public administration area and permission of department. Part-time internships in administrative agencies of the federal, state, and local governments. Priority given to seniors. Where the number of applicants exceeds the available intern positions, competitive selections will be made. Requests for internships should be filed with the department one quarter in advance of registration for this course.
- 445a **CURRENT TRENDS IN INTERNATIONAL POLITICS (3)**
Prerequisite: Pol Sci 101 or 250 (or Gen St 200 with permission of instructor) or equivalent. Current events in the light of long term trends in world politics; attention to sources of information and scholarly as well as journalistic interpretations of events.
- 445b **CURRENT PROBLEMS IN AMERICAN GOVERNMENT AND POLITICS (3)**
Prerequisite: upper-division standing. Discussion and assessment of current changes in the laws, institutions, policies and political processes of American government. Issues and problems, drawn from scholarly journals, journals of opinion, magazines, and newspapers, will provide focus. This course will study current changes and contemporary issues and problems from both a scholarly and journalistic perspective.
- 448 **LEGISLATIVE PROCESSES (3)**
Prerequisite: Pol Sci 353. A seminar focused on activities of special interest groups, agencies of state government, and the Executive Branch as they contribute to and affect state legislative processes. Particular attention given to budgeting, program planning, partisan issues, and the activities of public agencies seeking legislative action and financial support. Emphasis will be upon Washington State's bicameral system and the legislative systems of other states as appropriate.
- 449 **POLITICS AND SOCIAL CHANGE (3)**
Prerequisite: upper-division standing. Selected controversies in contemporary American society and the phenomena of related political activities. It is assumed that changes in social values will appear as abrasions to the established political order. Emphasis given to agencies of national and state government affected by the responses of the political system(s) to the pressures of groups manifesting varying social and economic values.
- 450 **POLITICS, CAMPAIGNS AND ELECTIONS (5)**
Prerequisite: Pol Sci 340. Voters and voting behavior; candidates and campaign strategy; the resources of politics—workers, money, and mass media.
- 455 **COMMUNITY POWER STRUCTURES (5)**
Prerequisite: Pol Sci 353. Interrelation of formal and informal decision-making structures at metropolitan and regional levels and below; power structure and "elite" literature. Not offered every year.
- 460 **POLITICAL THEORY: ANCIENT AND MEDIEVAL (3)**
Prerequisite: Gen St 121 or Pol Sci 360. Origin and evolution of major concepts in Western political thought from Pericles to Machiavelli. Not offered every year.
- 461 **POLITICAL THEORY: RENAISSANCE AND MODERN (3)**
Prerequisite: Gen St 122 or Pol Sci 360. Origin and evolution of major concepts in Western political thought from Machiavelli to Edmund Burke. Not offered every year.
- 462 **POLITICAL IDEOLOGY (3)**
Prerequisite: Gen St 123 or Hist 107 or Pol Sci 360. Origin and evolution of ideology. Liberalism, conservatism, socialism, anarchism, Marxism, fascism, national socialism, and their contemporary variants.
- 463 **AMERICAN POLITICAL THOUGHT (5)**
Prerequisites: History 203, 204, or equivalent, or Pol Sci 101 and/or 250 (or Gen St 200 with permission of instructor). Major concepts in American political thought from the Colonial period to the present.
- 464 **CONTEMPORARY POLITICAL THEORY (5)**
Prerequisite: Pol Sci 360. Recent developments in formal theory, including contributions from behaviorism, modern political economy, holistic or system theories, and normative theory.
- 465 **THEORIES OF DEMOCRACY (3)**
Prerequisite: Pol Sci 360. Survey and analysis of theories of democracy, from ancient to modern. Normative and empirical theories with emphasis on contemporary theory and research findings. Not offered every year.

- 467 **POLITICS, TRANSFORMATION AND ENVIRONMENTAL CONSTRAINT (5)**
 Prerequisite: Pol Sci 101 or 250. Incompatibility between the growth-oriented goals of contemporary political cultures and environmentally derived "steady-state" imperatives. Alienation and environmental degradation as the dual result of the "conquest of nature" ideology. The politics of transformation and value-change. (Also offered as Huxley 467.)
- 470 **NATIONAL DEFENSE POLICY (5)**
 Prerequisite: Pol Sci 270. Causes of military competition; weapons and strategy; defense spending; arms control, disarmament, and other alternatives to arms races.
- 476 **CHINA, JAPAN AND THE U.S.: WAR AND PEACE IN EAST ASIA (5)**
 Prerequisite: Pol Sci 270 or 307. Background, contemporary problems, and future alternatives in American-East Asian relations. Emphasis on role of cultural images, foreign policy decision-making, diplomatic and economic relations in bringing about conflict or alliance.
- 480 **POLITICS, GOVERNMENT, AND RELIGION (3)**
 Prerequisite: permission of instructor. Relationships between political activity and government structures on the one hand, and religious perceptions and organizations on the other; problem areas in relationships between politics, government, and religion; role of religion (perceptions and organizations) in modern political life and governmental structures. Not offered every year.
- 481 **POLITICAL SOCIALIZATION (5)**
 The content, process, and function of political socialization at individual, institutional and societal levels.
- 482 **TEACHING POLITICS AND GOVERNMENT (5)**
 Prerequisites: 15 credit hours in political science and Social Science Ed 425 or 426 or teaching experience. The course surveys and evaluates current and proposed political science curricula in the elementary and secondary schools. Teaching materials are evaluated in terms of stated objectives and influence upon student political orientations and behavior. Also covered is current research on the influence of the school upon student political socialization. This course is intended for experienced and pre-service teachers. Not offered every year.
- 483a,b **SIMULATION AND GAMES WORKSHOP IN POLITICS (2 ea)**
 Prerequisite: junior or senior status. Games and simulations of political processes related to social studies teaching at the middle school and high school levels. (a) Simulation introduction and administration. (b) Simulation evaluation and construction.
- 496a,b,c **HONORS TUTORIAL (2-5 ea)**
- 497d **TOWARD 1980: A WORKSHOP IN AMERICAN ELECTORAL REFORM (2)**
 To be offered summer, 1977.
- 500 **SPECIAL PROBLEMS (3-5)**
 Individual studies to meet the needs of a student's program.
- 501 **POLITICAL SCIENCE AS A DISCIPLINE (5)**
 History of political science; description and critique of fields; trends and challenges.
- 502 **RESEARCH TECHNIQUES IN POLITICAL SCIENCE (5)**
- 503 **PUBLIC POLICY AND ADMINISTRATION (5)**
 Consideration of current and emerging problems facing public organizations.
- 505 **SEMINAR IN COMPARATIVE GOVERNMENT AND POLITICS (5)**
 Principles of government and politics in existing and developing states.
- 510 **SEMINAR IN AMERICAN PUBLIC LAW (5)**
 The tradition and emerging trends.
- 520 **SEMINAR IN PUBLIC ORGANIZATIONAL THEORY (3)**
 Organizational theory and practice in public settings.
- 521 **SEMINAR IN PUBLIC POLICY ANALYSIS (3)**
 Advanced problems in public policy analysis.
- 523 **SEMINAR IN POLITICS AND PUBLIC FINANCE (3)**
 Advanced problems in politics and public finance.
- 525 **SEMINAR IN MODERN POLITICAL ECONOMY (3)**
 Prerequisite: permission of instructor. Consideration of contemporary theories of political economy: the political aspects of resource allocation, and the politics of the distribution of governmental benefits and burdens. Consideration is also given to various exchange theories of collective decision-making in democratic systems.
- 530 **SEMINAR IN MODERN CHINESE POLITICS (3)**
 Prerequisite: Pol Sci 430 and permission of instructor. Individual readings and research.
- 531 **SEMINAR IN MODERN JAPANESE POLITICS (3)**
 Prerequisites: Pol Sci 431 and permission of instructor.
- 540 **SEMINAR IN THE POLITICAL PROCESS (5)**
 The influence of organizations and individuals in the formation of public policy.
- 550 **SEMINAR IN STATE AND LOCAL GOVERNMENT (3)**
 Problems at sub-national levels, both American and other, internally and in relation to national levels.
- 560 **SEMINAR IN POLITICAL THEORY (3)**
 Function and history of political theory; the crisis in traditional theory; emerging trends.
- 690 **THESIS (6-9)**





PSYCHOLOGY

College of Arts and Sciences

For much of the recorded history of serious inquiry about the nature of things, scholars have repeatedly called for the study of man himself. Yet the study of psychology as the scientific investigation of man's behavior and experience is, in this decade, rounding out only its first century of existence. As a new field of inquiry, psychology offers an unusually large number of unexplored and dynamic frontiers for those who are seriously interested in understanding man's adjustments and maladjustments to his complex environment.

Although psychologists are now found in a vast number of different areas of employment, they are basically distributed into two broad categories: research and applied psychology. Psychologists may now be found in the communications media, aerospace industry, computer technology, social service, environmental protection, mental hospitals and mental health clinics, population control, vocational guidance clinics, public schools, foreign

service, engineering design, advertising, personnel work and many more. The largest numbers will be found in the practice of counseling and psychotherapy and in the colleges and universities doing teaching and research.

Active participation by students in this rapidly-expanding branch of knowledge is a major goal of the programs of undergraduate study of psychology at Western. This participation takes a number of different forms but among the most significant of these are:

- Formal classwork and seminars
- Individual research which begins after the first course and early in the student's college career
- Work on individual projects jointly with faculty members
- Participation in selected off-campus field experiences which cannot be duplicated in classroom or laboratory

With a faculty of more than 30 men and women,

all of whom hold the doctoral degree, the department is able to offer a general program and advanced study in most of the specialized areas of psychology. A core program in general psychology is offered to insure that all students will experience a sound basic background that will provide effective preparation for advanced study as well as a meaningful basis for a liberal education. Since the number of required courses is relatively small, students can complete the major from a variety of course offerings under advisement. Planned concentrations have been designed to guide students who wish to complete their requirements beyond the core program by following a prescribed program of studies in the following areas: Child Development, Human Services, Social Psychology, and Biopsychology. These concentrations are described following the description of the core requirements. Additional concentrations can be designed in cooperation with the student's adviser.

Recognizing that active learning experiences are most beneficial to the student, the department encourages students to become personally involved in research projects of their own design or in the many on-going research interests of the faculty. The core curriculum includes experiences which develop the student's ability to participate effectively in a wide variety of research activities.

In addition to its undergraduate offerings the department offers the M.A. and M.S. degree in General Psychology, with concentration available in School Psychology. In cooperation with the Department of Education, the M.Ed. degree is offered in School Counseling. Complete descriptions of these programs are included in the Graduate Bulletin.

PSYCHOLOGY FACULTY

- PETER J. ELICH (1961) Chairman. Professor. BA, University of Washington; MEd, Western Washington State College; PhD, University of Oregon.
- HENRY L. ADAMS (1957) Professor. BA, MA, University of Kentucky; PhD, University of Illinois.
- DON F. BLOOD (1951) Professor of Psychology and College Examiner. BA in Ed, Central Washington State College; MA, PhD, State University of Iowa.
- WILLIAM C. BUDD (1953) Professor. BA, Hamline University; BS, MA, PhD, University of Minnesota.
- STEPHEN L. CARMEAN (1964) Professor. BA, MA, PhD, University of Illinois.
- LOWELL T. CROW (1968) Professor. BS, MA, University of South Carolina; PhD, University of Illinois.
- GEORGE T. CVETKOVICH (1969) Professor. BA, Youngstown State University; MA, Akron State University; PhD, Kansas State University.
- CAROL J. DIERS (1963) Professor. BA, BA in Ed, Western Washington State College; MA, University of British Columbia; PhD, University of Washington.
- FREDERICK W. GROTE, JR. (1970) Assistant Professor. AB, Dartmouth College; PhD, University of North Carolina.
- ELVET G. JONES (1957) Professor. BA, MA, University of British Columbia; PhD, University of Minnesota.

- B. L. KINTZ (1965) Professor. AB, MA, PhD, University of Iowa.
- RONALD A. KLEINKNECHT (1970) Associate Professor. BA, MS, PhD, Washington State University.
- LOUIS G. LIPPMAN (1966) Professor. BA, Stanford University; MA, PhD, Michigan State University.
- MARCIA Z. LIPPMAN (1969) Associate Professor. BA, MA, Michigan State University; PhD, University of British Columbia.
- WALTER J. LONNER (1968) Professor. BA, MA, University of Montana; PhD, University of Minnesota.
- WILLIAM R. MacKAY (1962) Associate Professor. AB, Brown University; MA, EdD, University of California, Berkeley.
- ROBERT D. MARX (1970) Associate Professor. AB, University of Michigan; PhD, University of Illinois.
- EVELYN P. MASON (1959) Professor. BA, Mills College; MA, PhD, Washington University.
- ROBERT D. MEADE (1965) Professor. BA, Indiana University; MA, PhD, University of Pennsylvania.
- HAYDEN L. MEES (1970) Professor. AB, University of California; MS, PhD, University of Washington.
- LAURENCE P. MILLER (1968) Associate Professor. BA, University of California, Los Angeles; MA, San Fernando Valley State College; PhD, The Ohio State University.
- FRANK A. NUGENT (1961) Professor. BS, New Jersey State Teachers College; MA, Columbia University; PhD, University of California, Berkeley.
- DAVID M. PANEK (1965) Associate Professor. BA, Beloit College; MS, University of Wisconsin; PhD, Washington State University.
- NORVAL L. PIELSTICK (1973) Associate Professor. BA, Linfield College; MA, Washington State University; PhD, University of Illinois.
- MERLE M. PRIM (1969) Associate Professor. BA, University of Washington; MS, San Diego State College; PhD, Washington State University.
- EARL R. REES (1970) Assistant Professor. BA, Southern Illinois University; MA, PhD, Brown University.
- RONALD W. SHAFFER (1970) Assistant Professor. BA, California State College, Los Angeles; MA, PhD, University of New Mexico.
- CHRISTOPHER J. TAYLOR (1968) Associate Professor. AB, Wittenberg University; MS, PhD, Ohio University.
- SAUNDRA J. TAYLOR (1968) Associate Professor. BA, DePauw University; MA, Bowling Green State University; PhD, Ohio University.
- RICHARD W. THOMPSON (1967) Professor. BA, MA, PhD, Michigan State University.
- ROBERT M. THORNDIKE (1970) Professor. BA, Wesleyan University; PhD, University of Minnesota.
- VERNON O. TYLER, JR. (1965) Associate Professor. BS, University of Washington; MA, University of Iowa; PhD, University of Nebraska.
- JAMES W. WILKINS, JR. (1967) Associate Professor. AB, MA, Kent State University; PhD, Michigan State University.
- PAUL WOODRING (1939) Distinguished Service Professor of the College. BSEd, Bowling Green State University; MA, PhD, Ohio State University. Honorary degrees: LHD, Kalamazoo College; PhD, Coe College; LittD, Ripon College; LHD, Bowling Green State University; LLD, University of Portland.

BACHELOR OF ARTS

Major 60 credits

Required Courses

- Psych 201, 306, 307
- Two courses from Psych 311-316
- Two courses from Psych 321-326

Psychology

- One course from Psych 401-403
- One course from Psych 404-406
- One course from Psych 411-412
- In addition to the required courses, an additional 15 elective credits in psychology are required. Consult your adviser in psychology for assistance in selecting your elective courses

Elective Concentrations

The core program of required courses is designed to insure a solid background in general psychology. The requirements for the B.A. in psychology can be met by the 45 credit core program and any 15 credits in psychology. Several concentrations of elective courses have been developed to guide students in the selection of their elective credits.

General: Advisers -- R. Meade and P. Elich. Students who wish to maximize breadth of study in psychology are advised to select their electives according to the following program.

- At least one course from each of the following pairs: Psych 311, 312; 313, 314; 315, 316; 321, 322; 323, 324; 325, 326
- Two courses from each of the following groups: Psych 401-403; 405, 407

Mental Health Services: Advisers -- R. Marx and D. Panek

- Core program to include: Psych 313, 314, and one course from 311, 312, 315, 316
- Psych 402, 432, 433
- Two quarters of Psych 449

Child Development: Advisers -- F. Grote and M. Lippman

- Core program plus three courses from Psych 457-461

Social Psychology: Adviser -- G. Cvetkovich

- Core program to include Psych 315, 403
- Two of the following: Psych 440, 441, 442

Industrial Psychology: Adviser -- C. Taylor

- Core program to include Psych 311, 315, 321, and 322 (312 and 313 recommended)
- Psych 320 and 420

Biopsychology: Advisers -- R. Thompson, L. Crow and M. Prim

- Core program to include: Psych 312, 316, 325, 326, 403, 406
- Electives from Psych 321-324, 409, 442; Biology 310, 312, 321, 366, 368, 370, 424, 460, 465, 478, 490

Students who are planning to pursue graduate study in psychology are advised to take a supporting sequence of 15 credits (beyond the 101 survey course) in biology, chemistry, mathematics or physics.

Minor 24 credits in Psychology

- Psych 201
- One course from: Psych 311-316
- One course from Psych 321-326
- Electives under advisement (Psych 305, 306, 307 are recommended)

BACHELOR OF ARTS IN EDUCATION

Major Elementary

Prospective elementary teachers are advised to take the Arts and Science concentration in Child Development.

Minor 20 credits

- Psychology 201
- 15 credits in psychology other than the required professional educational psychology courses; recommended courses include 306, 307

DEPARTMENTAL HONORS

In addition to the general requirements for all honors students, a psychology major who wishes to graduate "with honors" will develop a program of studies with the departmental honors adviser, complete Psychology 425 and prepare a thesis which he will defend before a faculty committee.

GRADUATE STUDY

For concentrations in psychology leading to the Master of Education, the Master of Arts, or the Master of Science degrees, see *Graduate Bulletin*.

COURSES IN PSYCHOLOGY

Courses in educational psychology include Psych 316, 351, 371, 372, 353, 451, 491, 492. With the exception of Psych 316 and 353, these courses are not applicable to the arts and science major or minor.

197c INTRODUCTION TO COLLEGE LEARNING (1)

Techniques designed to assist students in improving the effectiveness of their college learning experience. S/U grading.

201 INTRODUCTION TO PSYCHOLOGY (5)

Examination of basic psychological processes utilizing results of research investigations; participation in at least two experiments or equivalent activities.

300 SPECIAL PROBLEMS (1-3)

Prerequisite: permission of instructor.

- 305 **ADVANCED GENERAL PSYCHOLOGY (5)**
Prerequisite: Psych 201. An integrative course covering broad philosophical issues in psychology as well as more specific issues of contents and methodologies in psychology. Specific content areas include psychophysics, perception, learning and memory, cognitive processes, motivation, and analyses of decision making and problem solving.
- 306 **EXPERIMENTAL PSYCHOLOGY AND STATISTICS I (5)**
Prerequisite: Psych 201. Introduction to experimental methodology in psychology and statistical treatment of results. Lectures and laboratory.
- 307 **EXPERIMENTAL PSYCHOLOGY AND STATISTICS II (5)**
Prerequisite: Psych 306. Design and conduct of psychological research investigations and statistical treatment of results; individual research project; lectures and laboratory.
- 311 **PSYCHOLOGICAL TESTS AND MEASUREMENT (5)**
Prerequisite: Psych 201. Philosophy, history and development of psychological measurement. Reliability, validity, standardization and norms. A study of representative tests of intelligence, special abilities, personality, interests and values. Students will review non-restricted instruments of various types in small groups.
- 312 **PSYCHOLOGY OF INDIVIDUAL DIFFERENCES (5)**
Prerequisite: Psych 201. Research strategies, correlational procedures and inferential processes. The nature-nurture question. Elements of genetics, heredity and behavior genetics. Dimensions of differences in intelligence by race, social class, age and sex. The effect of cultural influences on intelligence.
- 313 **PERSONALITY (5)**
Prerequisite: Psych 201. An examination of the three major approaches to personality development; psychodynamic, behavioral and humanistic. Historical and philosophical development; research issues; and current applications.
- 314 **ABNORMAL PSYCHOLOGY (5)**
Prerequisite: Psych 201. Human behavior patterns culturally labeled as abnormalities, or as mental illness; their etiology, incidence, treatment, and social attitudes toward such patterns. Presents an historical review of the concepts used to explain such behavior and a review of the research relating to the treatment of psychoses and neuroses.
- 315 **SOCIAL PSYCHOLOGY (5)**
Prerequisite: Psych 201. 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.
- 316 **DEVELOPMENTAL PSYCHOLOGY (5)**
Prerequisites: Psych 201 or Gen St 105. Basic principles of development with special attention to the preschool and elementary school-age child. Topics include behavior genetics, early experience, language, cognition, personality, and social development.
- 317 **HUMAN SEXUALITY (5)**
Prerequisite: Psych 201. Developmental aspects of sexuality, physiology and anatomy of sex, human sexual behavior, sex roles and stereotypes, sexism, homosexuality, treatment of sexual problems, research in sexuality. A research or term paper required.
- 318 **PSYCHOLOGY AND CULTURE (3)**
Prerequisite: Psych 201. Cultural and ecological factors and their effect on perception, thinking, language, intelligence, sexuality, and other psychological variables. An examination of the "universality" of traditional EuroAmerican psychological theories.
- 319 **PERSONALITY THEORIES AND SEX ROLES (4)**
Prerequisites: Psych 201 and 313. This course will examine major personality theories and their philosophical assumptions; historical perspective and empirical findings about sex roles, culturally and cross-culturally. The course will focus on the psychological ramifications of sex role development for men and women.
- 320 **INDUSTRIAL PSYCHOLOGY (4)**
Prerequisite: Psych 201 or Gen St 105. Application of psychological principles to industrial problems of personnel selection and appraisal, human relations, marketing, training and engineering psychology.
- 321 **LEARNING (5)**
Prerequisite: Psych 201. A survey of the major principles of learning, with special emphasis upon the sources of, evidence for, and theoretical implications of these principles. May be substituted for Psych 351 for teacher certification.
- 322 **MOTIVATION (5)**
Prerequisite: Psych 201. 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.
- 323 **SENSORY PROCESSES (5)**
Prerequisite: Psych 201. The mechanisms by which man and lower animals process information through various sensory modalities. The adaptive significance of sensory processes.
- 324 **PERCEPTION (5)**
Prerequisite: Psych 201. Classical and contemporary descriptions of human perceptual behavior are discussed together with specific perceptual phenomena such as perceptual constancies, perception of intersensory stimuli, creativity, and levels of awareness. Examples are drawn from music, art, verbal and nonverbal communication.
- 325 **COMPARATIVE PSYCHOLOGY (5)**
Prerequisite: Psych 201. Phylogenetic comparison of animal behavior, learning, motivation and sensory processes in selected species of animals.
- 326 **PHYSIOLOGICAL PSYCHOLOGY (5)**
Prerequisite: Psych 201. The biological foundations of behavior.
- 342 **THINKING AND IMAGINATION (3)**
Prerequisite: Psych 201. Empirical studies and theories relevant to the topics of intuitive and analytical thought, creativity, and fantasy. (Formerly Psych 443.)
- 346 **PSYCHOLOGY OF RELIGION (3)**
Prerequisite: Psych 201 or Gen St 105. A study of certain major works in the psychology of religion. Works by James, Freud and Jung will be included.
- 347 **HUMANISTIC PSYCHOLOGY (3)**
Prerequisite: Psych 313. Course will review the personality theories, practices and research generated by the contemporary humanistic view of man. Some work of such leaders in this third force in psychology as Adler, Allport, May Maslow, Rogers, Frankl and Fromm.

Psychology

- 349 **PSYCHOLOGY IN LITERATURE (3)**
Prerequisite: Psych 201. Approximately ten literary works with an especial psychological content will be examined primarily through class discussion. A majority of the books will be twentieth century American and European novels. Novels will be selected because of their literary description of various psychological phenomena. Each will be analyzed in terms of appropriate psychological theories and concepts.
- 351 **PSYCHOLOGY OF HUMAN LEARNING AND INSTRUCTION (3)**
Prerequisite: Gen St 105 or Psych 201; not open to those with credit in 321. Application of psychological principles of learning to classroom teaching.
- 353 **ADOLESCENT PSYCHOLOGY (4)**
Prerequisites: Psych 351 or 201. Basic principles of development with special attention to the secondary school age child; implications for educational practices.
- 371 **EVALUATION IN THE SECONDARY SCHOOL (3)**
Evaluation of student achievement in secondary school with particular emphasis upon teacher-made tests and application of statistical procedures to test results.
- 372 **EVALUATION IN THE ELEMENTARY SCHOOL (2)**
Basic techniques for evaluation of student achievement, with particular emphasis on observational techniques and standardized tests appropriate to grades K-6.
- 396a,b,c **HONORS TUTORIAL (2-5)**
- 397b **EXPLORATIONS IN CREATIVITY (5)**
Prerequisite: Psych 201. Critical readings-discussion format. Survey of Eastern and Western philosophies, practices and research findings as they relate to creativity.
- 397c **MARINE INVERTEBRATE BEHAVIOR (5)**
Prerequisite: Psych 201 or Biol 101. Behavior analysis of selected marine animals. Comparative, physiological and ethological aspects of behavior theory and data are examined. Lectures and laboratory. (Offered summer only—Shannon Point.)
- 400 **ADVANCED PSYCHOLOGICAL RESEARCH PROBLEMS (3)**
Prerequisite: Psych 307 and permission of instructor. Individual project in psychology based on empirical research. S/U grading.
- 401 **SEMINAR IN INDIVIDUAL DIFFERENCES AND PSYCHOLOGICAL MEASUREMENT (3)**
Prerequisites: Psych 307 (may be taken concurrently), 311 or 312. Major issues and methods in the study of individual differences and measurement. Laboratory and research.
- 402 **SEMINAR IN PERSONALITY AND ABNORMAL PSYCHOLOGY (3)**
Prerequisites: Psych 307 (may be taken concurrently), 313 or 314. Major issues and methods in the study of personality and abnormal psychology. Laboratory and research.
- 403 **SEMINAR IN SOCIAL PSYCHOLOGY AND DEVELOPMENTAL PSYCHOLOGY (3)**
Prerequisites: Psych 307 (may be taken concurrently), 315 or 316. Major issues and methods in the study of social and developmental psychology. Laboratory and research.
- 404 **SEMINAR IN LEARNING AND MOTIVATION (3)**
Prerequisites: Psych 307 (may be taken concurrently), 321 or 322. Major issues and methods in the study of learning and motivation. Laboratory and research.
- 405 **SEMINAR IN PERCEPTION AND SENSORY PROCESSES (3)**
Prerequisites: Psych 307 (may be taken concurrently), 323 or 324. Major issues and methods in the study of perception and sensation. Laboratory and research.
- 406 **SEMINAR IN COMPARATIVE AND PHYSIOLOGICAL PSYCHOLOGY (3)**
Prerequisites: Psych 307 (may be taken concurrently), 325 or 326. Major issues and methods in the study of comparative and physiological psychology. Laboratory and research.
- 411 **SEMINAR IN HISTORY AND SYSTEMS OF PSYCHOLOGY (4)**
Prerequisites: senior status, permission of instructor. An historical perspective of the development of psychological systems and theories and the impact of these developments on contemporary psychology.
- 412 **SEMINAR IN PSYCHOLOGICAL THEORY (4)**
Prerequisites: senior status, permission of instructor. A seminar examining the philosophical assumptions of science in general and psychology in particular.
- 420 **ADVANCED INDUSTRIAL PSYCHOLOGY (5)**
Prerequisites: Psych 306 and 320. Psychological theories, methodology and findings related to the problems of business and industry, lectures, and laboratory.
- 425 **HONORS SEMINAR (3)**
Prerequisite: permission of instructor. Intensive examination of selected problems in psychology.
- 431 **INTRODUCTION TO SCHOOL AND COMMUNITY COUNSELING (4)**
Prerequisites: 15 credits in psychology, junior status. Roles of counselors and other psychological specialists in an integrated program in schools and community. Ethical considerations. Survey of counseling theories and techniques, guidance, consultation and other outreach activities. Counseling minorities, issues in training, practice and licensing. Appropriate training and use of paraprofessionals. Research activities of counselors.
- 432 **INTERVIEWING THEORY AND PRACTICE (4)**
Prerequisite: permission of instructor will be granted upon determination that student has had either academic or practical experience which would familiarize him/her with varieties of human behavioral problems, differences in attitudes, and differences in emotional responses to the interaction with other people. This course will teach skills and underlying psychological principles which facilitate communication between individuals, particularly in the helping interview. Focus will be on developing awareness of one's own impact on others, listening skills, and a variety of interviewing techniques appropriate for a large number of interpersonal settings. Format includes demonstrations of techniques, practice using role playing feedback, and lecture on theoretical aspects of interviewing. Evaluation based on interviewing performance and examination of reading material.
- 433 **MENTAL HEALTH PRINCIPLES, PROGRAMS AND PROBLEMS (3)**
Prerequisites: Psych 432 (must be taken concurrently with or prior to 449). Survey and analysis of community problems and resources as they affect the psychological welfare of the individual. Selective review of current approaches, facilities and philosophies in community mental health as they reflect the shift toward greater assumption of treatment responsibilities by the community, more adequate safeguards for individual human rights, and the development of preventive treatment strategies.

- 440 **SOCIAL PSYCHOLOGY AND SOCIAL ISSUES (3)**
Prerequisites: Psych 306, 315. Recent empirical and theoretical work on human conflict, aggression and competition. Normally offered alternate years.
- 441 **CROSS-CULTURAL PSYCHOLOGY (3)**
Prerequisites: Psych 306 and permission of instructor. A seminar approach to selected theoretical and methodological problems and issues relating to cross-cultural research as a major method in psychology. Normally offered alternate years.
- 442 **SOCIAL BEHAVIOR IN ANIMALS (3)**
Prerequisite: Psych 306. Comparison of social organization and behavior patterns in various species; aggression, population control, communication systems; evolution of behavior. Normally offered alternate years.
- 445 **CURRENT TRENDS IN PSYCHOLOGY**
Prerequisite: 20 credits in psychology. Selected topics in psychology which vary from quarter to quarter. Consult time schedule and Department of Psychology for further information.
- 449 **FIELD EXPERIENCES IN PSYCHOLOGY (5)**
Prerequisite: 20 credits in psychology (Psych 443, or concurrent, required for students in mental health concentration). Topics included are mental health, child development, behavior problems of adolescence, and other relevant topics. Field work combined with readings and seminars. This course may be taken two times for credit only by students in the psychology mental health services concentration. All other students are limited to one quarter credit.
- 451 **MOTIVATION IN THE CLASSROOM (3)**
Prerequisite: Psych 201 or 351. To acquaint teachers and prospective teachers with principles of human motivation as they apply to the school and learning environment. To develop skills in the teacher for promoting individual and group motivation.
- 452 **GUIDANCE STRATEGIES FOR TEACHERS (3)**
Prerequisite: permission of instructor. Primarily for the practicing teacher and the prospective teacher. Principles of interpersonal behavior, development of skills needed to interact effectively with students and fellow professionals, and to create productive healthy learning environment. Includes appropriate use of school counselor and other specialists as consultants and as referral sources, appropriate use of standardized tests and cumulative records, parent conference techniques, and group interaction in the class. The relationship of guidance activities to the curriculum will be explored.
- 455 **ADVANCED CHILD PSYCHOLOGY (3)**
Prerequisite: Psych 316 or equivalent. Selected topics in child development. Research and theory in child development and behavior.
- 457 **DEVELOPMENTAL PSYCHOLINGUISTICS (5)**
Prerequisites: Psych 306, 307 prerequisite or concurrent, one course from Psych 311-316, and one from Psych 321-326. Experimental findings and theoretical interpretations of the biological, psychological, and linguistic aspects of language; special attention to implications for a theory of language acquisition.
- 458 **COGNITIVE DEVELOPMENT (5)**
Prerequisites: Psych 306, 307 prerequisite or concurrent, one course from Psych 311-316, and one from Psych 321-326. Historical, theoretical and empirical aspects of cognitive development of children; critical analysis of research and methodology.
- 459 **EARLY EXPERIENCE (5)**
Prerequisites: Psych 306, 307 prerequisite or concurrent, one course from Psych 311-316, and one from Psych 321-326. Effects of early experience upon behavior of the organism of different stages of development.
- 461 **CHILD LEARNING (5)**
Prerequisites: Psych 306, 307 prerequisite or concurrent, one course from Psych 311-316, and one from Psych 321-326. Early learning from a developmental viewpoint. Emphasis upon experiential factors affecting early growth and maturation.
- 471 **STANDARDIZED TESTS (3)**
Prerequisite: Psych 371 or 311. Standardized group tests commonly used in the public schools; selection and administration of tests; interpretation of norms.
- 490 **MEASUREMENT IN PSYCHOLOGICAL RESEARCH (3)**
Prerequisite: permission of instructor. Fundamental properties of psychological research data are discussed, including the necessary and desirable qualities of data, procedures for evaluating the quality of data, techniques for gathering and scaling data prior to statistical analysis. S/U grading only. Not open to students with credit in Psych 311.
- 496a,b,c **HONORS TUTORIAL (2-5)**
- 500 **SPECIAL PROBLEMS (1-3)**
Prerequisite: permission of instructor. S/U grading only.
- 501 **PSYCHOLOGICAL FOUNDATIONS (3 ea)**
Prerequisite: admission to MA/MS program. 501a,c,e offered every year in fall, winter and spring quarter, respectively; 501g,h,i offered when fall quarter occurs during an even-numbered year; 501b,d,f offered when fall quarter occurs during an odd-numbered year. These alternating courses are also scheduled for fall, winter and spring quarters, respectively.
501a Systems of Psychology
501b Perception
501c Learning
501d Motivation
501e Social
501f Personality
501g Developmental
501h Physiological
501i Behavior Pathology
- 502, 503 **DESIGN AND ANALYSIS OF EXPERIMENTS (3 ea)**
Prerequisite: Psych 306; 502 prerequisite to 503. Multidimensional analysis of variance, trend analysis, and analysis of covariance. Offered winter and spring quarters only.
- 504 **MULTIVARIATE ANALYSIS I (3)**
Prerequisites: Psych 503 or permission of instructor. Topics in elementary multivariate analysis including product-moment and other indices of bivariate relationship, partial correlation and multiple correlation.
- 505 **MULTIVARIATE ANALYSIS II (3)**
Prerequisite: Psych 504. Topics in advanced multivariate analysis including canonical analysis, discriminant function analysis, cluster analysis and factor analysis. Logical and geometric properties of multivariate techniques and interpretation of research results are stressed.
- 506 **TOPICS IN QUANTITATIVE PSYCHOLOGY (1-6, repeatable to a maximum of 6 credits)**
Prerequisites: Psych 503 or Psych 505. Specific content of course to be arranged by agreement of instructor and students. Examples of appropriate content would be: computer applications in psychological research; mathematical models of behavior; statistical consulting. S/U grading.

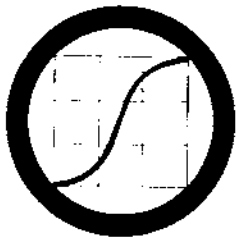
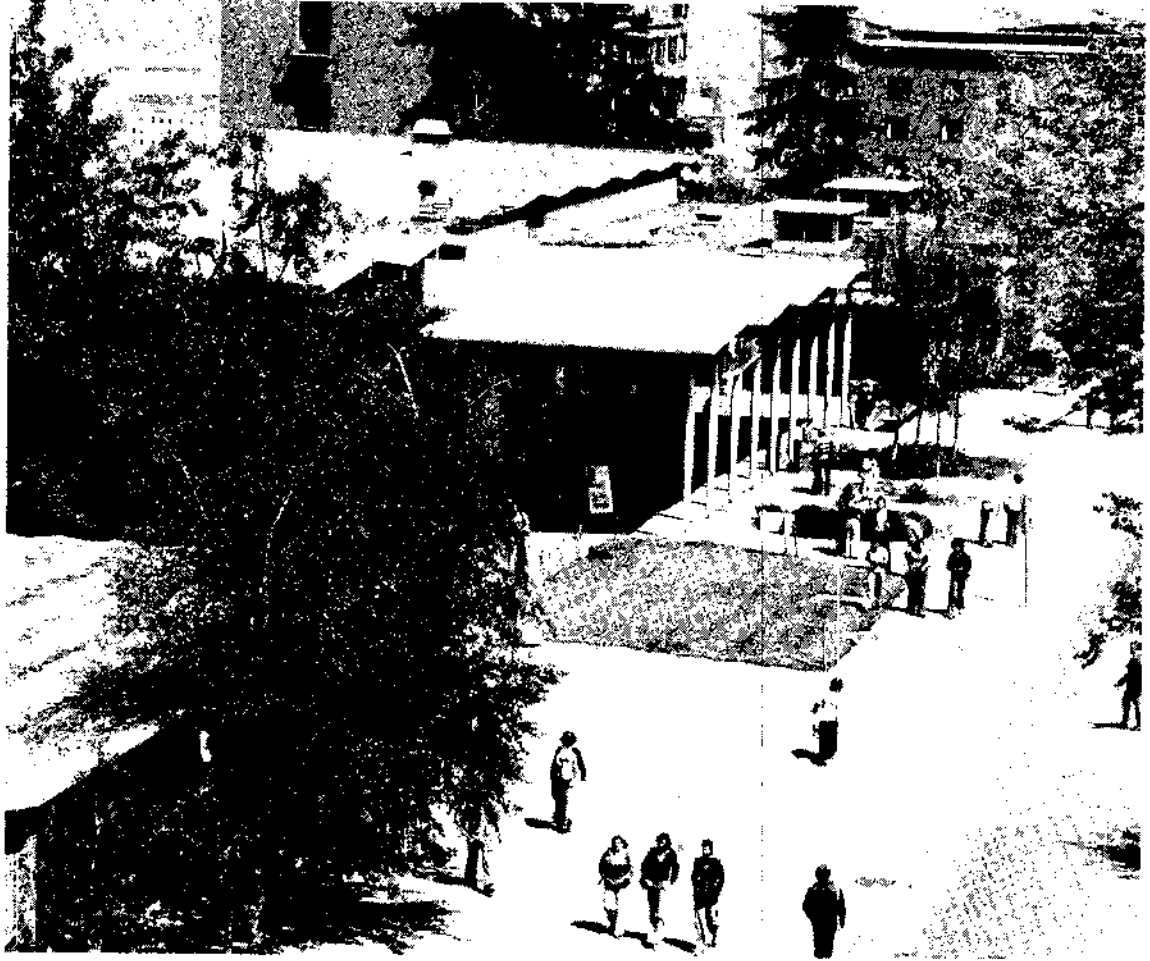
Psychology

- 510 RESEARCH PRE-PRACTICUM (2)
Prerequisite: permission of instructor. Student participates as an apprentice in on-going faculty research. To be distinguished from Psych 582, in which the research is initiated and conducted by the student under faculty supervision. S/U grading.
- 511 INSTRUMENTATION FOR PSYCHOLOGICAL RESEARCH (2)
Typical technological solutions to problems encountered in original research; lecture and laboratory.
- 512 CONSTRUCTION OF PSYCHOLOGICAL MEASURING DEVICES (2)
Prerequisite: Psych 413 or equivalent.
- 520 SEMINAR IN PERCEPTION (3)
Prerequisite: Psych 501b or permission of instructor.
- 521 SEMINAR IN LEARNING (3)
Prerequisite: Psych 501c or permission of instructor.
- 522 SEMINAR IN MOTIVATION (3)
Prerequisite: Psych 501d or permission of instructor.
- 523 SEMINAR IN SOCIAL PSYCHOLOGY (3)
Prerequisite: Psych 501e or permission of instructor.
- 524 SEMINAR IN PERSONALITY (3)
Prerequisite: Psych 501f or permission of instructor.
- 525 SEMINAR IN PHYSIOLOGICAL PSYCHOLOGY (3)
Prerequisite: Psych 501h or permission of instructor.
- 526 SEMINAR IN COMPARATIVE PSYCHOLOGY (3)
Prerequisite: permission of instructor.
- 527 SEMINAR IN DEVELOPMENTAL PSYCHOLOGY (3)
Prerequisite: Psych 501g or permission of instructor.
- 528 SEMINAR IN BEHAVIOR PATHOLOGY (3)
Prerequisite: Psych 501i or permission of instructor.
- 529 SEMINAR IN ADVANCED MEASUREMENT THEORY (3)
Prerequisite: Psych 512 or permission of instructor.
- 530 SEMINAR IN CURRENT PHILOSOPHICAL ISSUES IN PSYCHOLOGY (3)
Prerequisite: Psych 501a or permission of instructor.
- 551 INTRODUCTION TO PROFESSIONAL PSYCHOLOGY (3)
Prerequisite: admission to MA/MS program in psychology. Basic orientation to historical antecedents, present functions and roles of professional psychologists in private practice, industry and social services agencies, including psychotherapy, clinical assessment, mental health consultation, crisis intervention, community psychology, personnel selection. Legal, ethical and interdisciplinary issues will also be considered. Normally offered fall quarter.
- 552 STRATEGIES OF BEHAVIOR CHANGE (3)
Prerequisite: admission to MA/MS program in psychology. In-depth coverage of selected current psychotherapeutic strategies including theoretical rationale, techniques used and evaluative research supporting their use. Comparisons of several approaches and evaluated effectiveness for various client populations will be covered.
- 553 INTRODUCTION TO COUNSELING PSYCHOLOGY (3)
Prerequisite: available only to M.Ed. candidates. Basic orientation to professional psychology and behavioral approaches, relation of theories to treatment techniques, relevant research, and an applied project.
- 555 PSYCHOLOGY OF OCCUPATIONS (3)
Prerequisite: Psych 431 or permission of instructor. Sources of occupational materials; theories of career development; applications to vocational counseling.
- 556 PROBLEMS AND ISSUES IN PSYCHOLOGICAL ASSESSMENT (4)
Prerequisites: Psych 311, 471, or equivalent, admission to School Psychology concentration and permission of instructor. Problems and issues related to the technical aspects of assessment, the concepts of personality and intelligence involved and the use of the assessment procedures.
- 557 INDIVIDUAL APPRAISAL IN COUNSELING (3)
Prerequisites: Admission to M.Ed. program and permission of instructor. Collection, evaluation, application, and interpretation of data available to the school counselor.
- 559 PSYCHOLOGICAL ASSESSMENT (4)
Prerequisites: Psych 556 and permission of instructor. Development of skill in administering and interpreting the results of individually administered intelligence tests and in reporting results.
- 561 SEMINAR IN SCHOOL PSYCHOLOGICAL AND COUNSELING SERVICES (3)
Prerequisite: admission to M.Ed. program or to School Psychology concentration. Consideration of the issues and special problems in the application of counseling and clinical theories and research to school psychology and educative settings.
- 562 PRACTICUM IN PSYCHOLOGICAL EVALUATION (4)
Prerequisites: Psych 559 and permission of instructor. Development of skill in making behavioral analyses and incorporating the results with those of other assessment procedures in formulating treatment decisions and plans.
- 564 INDIVIDUAL COUNSELING TECHNIQUES (5)
Prerequisite: admission to M.Ed. program or to School Psychology concentration. Skill development in individual counseling, psychotherapy and behavior modification techniques using actual interviews, simulations, video tape and other laboratory procedures. Prerequisite to practicum in individual therapy.
- 565 GROUP PROCESSES IN COUNSELING (3)
Prerequisite: admission to M.Ed. program or to School Psychology concentration. Current group counseling and psychotherapy techniques, task directed, encounter, decision-making and communication techniques will be covered. Prerequisite to practicum in group psychotherapy and counseling.
- 570 PRACTICUM (1-10, not to exceed a total of 15)
Prerequisite: admission to School Psychology concentration or to M.Ed. program. Professional practice under assigned departmental supervision. Course can be repeated. S/U grading.



- 580 SEMINAR IN COLLEGE TEACHING OF PSYCHOLOGY (3)
- 581 PRACTICUM IN COLLEGE TEACHING OF PSYCHOLOGY (1-12)
Prerequisite: permission of the instructor. S/U grading only.
- 582 PRACTICUM IN RESEARCH IN PSYCHOLOGY (1-12)
Prerequisites: Psych 510 and permission of instructor. Student initiates and conducts a project under faculty supervision. S/U grading.
- 648 PROFESSIONAL INTERNSHIP (1-6)
Prerequisites: available only to students admitted to M.Ed. School Counseling or MA/MS School Psychology concentration and upon permission of program adviser. Supervision during employment in professional practice after completion of academic work for master's degree. Thesis may be taken concurrently with approval.
- 649 SEMINAR IN COUNSELOR SUPERVISION AND CONSULTATION (4)
Planning, organizing and implementing counseling and consulting experiences for graduates in counseling in the public schools or other agencies. Development of effective techniques for assessment in counseling and consulting competence are studied. Recommended for practitioners in the

- field eligible for continuing certification and who wish to be prepared to supervise or assist in the supervision of counseling practicum students or counseling interns.
- 653 ADVANCED COUNSELING THEORY AND PRACTICE (4)
Prerequisite: master's degree and/or initial certification in counseling. S/U grading.
- 655 ADVANCED SEMINAR IN VOCATIONAL COUNSELING (4)
Prerequisite: master's degree and/or initial certification in counseling. S/U grading.
- 661 ADVANCED SEMINAR IN PROFESSIONAL ISSUES IN COUNSELING PRACTICE (4)
Prerequisite: master's degree and/or initial certification in counseling.
- 670 INTERNSHIP (1-6)
Prerequisites: Psych 570 and permission of instructor. Available only to students in M.Ed. School Counseling or MA/MS School Psychology concentration. An extension of Psych 570 with increasingly independent responsibilities for practice in a professional setting. Primary supervision is by appropriate staff in the cooperating agency.
- 690 THESIS (1-6)
S/U grading only.



SOCIOLOGY

College of Arts and Sciences

In common with the other branches of science, sociology is not simply a point of view but rather a method for discovery and a body of information specifically about social organization and behavior. Sociology begins with the simple assumption that organization and behavior are not random events. Its fundamental purpose is to discover the patterns which underlie social events and to describe these patterns in a parsimonious and concise manner.

The programs leading to degrees in sociology at Western are designed to provide the student a strong academic and practical training. Through formal class work and seminars, the student is introduced to the method and theory of sociological inquiry. This preparation may be extended if the student chooses to become involved in one of many research projects in the department. Working under faculty supervision, the student may choose to pursue more thoroughly such areas as demography, human ecology, social psychology, criminology or social

organization. For students interested in the application of sociology, opportunities for training in human resources planning and field experience are also provided.

The department currently houses a number of facilities for sociological research. The Demographic Research Laboratory contains complete U.S. Census Bureau data, local surveys, collections of vital statistics and census maps. There are two social psychology laboratories for the experimental study of social behavior. The department also houses a computer laboratory, funded by the National Science Foundation; it contains cathode ray terminals, a hard-copy terminal, a graphic display unit, and a hard-copy plotter. Additionally, several members of the faculty are involved in field research, employing the local community and region as a laboratory.

With a faculty of nine members, all holding the

doctoral degree, the department is able to offer degree concentrations in general sociology, social psychology, demography/ecology, criminology, and human resources planning. In addition, students interested in pre-professional training in social services will find an adviser and suggested curriculum in the department.

The department has programs leading to the B.A. and B.S. in sociology. The Bachelor of Arts degree is designed to provide students with a liberal arts education, with individual specialization in sociology under advisement. While employment prospects are difficult to identify with precision for a general liberal arts degree, it has been the case for most of this century that such degree holders remain more likely to be employed, to be employed throughout their lifetimes as market conditions change, and to report higher lifetime incomes and job satisfaction throughout their working life than any other general category in the labor force. Former graduates holding the B.A. currently fill numerous positions in both the public and private sectors; many have pursued advanced studies in sociology and other related fields. The B.S. degree is designed to provide students with a theoretical and substantive background in sociology, together with accessory skills in mathematics and computer science.

SOCIOLOGY FACULTY

- G. EDWARD STEPHAN (1970) Chairman.
Professor. BA, San Francisco State College; PhD, University of Oregon.
- DONALD J. CALL (1958) Associate Professor. BA, MA, PhD, University of Oregon.
- GEORGE F. DRAKE (1968) Associate Professor. BA, MA, University of California, Berkeley; PhD, University of Wisconsin.
- CHARLES GOSSMAN (1968) Associate Professor. BA, University of Puget Sound; MA, PhD, University of Washington.
- PHILIP L. KNOWLES (1976) Assistant Professor. BA, Western Washington State College; MA, PhD, University of Nevada, Reno.
- E. R. MAHONEY (1970) Associate Professor. BA, Chico State College; PhD, University of Oregon.
- *D. PETER MAZUR (1960) Professor of Sociology and Demography. BA, Stetson University; MA, University of Colorado; PhD, University of Washington.
- INGEBORG L. E. PAULUS (1971) Associate Professor. BA, MA, University of British Columbia; PhD, University of London.
- JOHN G. RICHARDSON (1974) Assistant Professor. BA, University of the Pacific, Stockton; MA, PhD, University of California, Davis.

BACHELOR OF ARTS

Major 70 credits

Elective Concentrations

The following concentrations are offered to assist

*On Sabbatical Leave Fall 1977 & Winter 1978

students in selecting an undergraduate program which meets specific needs and interests while at the same time guaranteeing sufficient breadth to avoid over-specialization. Courses listed as being taught through other departments will count toward the 70-credit major in sociology; non-departmental courses must be approved by the department in order to count toward the major.

Students are advised to select the general sociology concentration unless they have a particular concentration interest.

Core Program

- Soc 202, 302, 310, 315

General Sociology: Adviser - consult departmental secretary

- Core program
- Soc 303, 330, 321
- Additional sociology electives to total 70 credits

Criminology: Advisers - Paulus, Call

- Core program
- Soc 351, 352, 353, 354, 452
- Soc 454 or Pol Sci 415
- Soc 465 or Psych 353
- Additional sociology electives to total 70 credits

Demography/Ecology: Advisers—Gossman, Mazur

- Core Program
- Soc 321, 322, 323, 415, 421, 422
- Math 121, 220
- Comp Sci 110
- Geog 440
- Additional sociology or mathematics electives to total 70 credits

Human Resources Planning: Adviser - Drake

- Core program (substitute Soc 311 for 310)
- Soc 313, 321, 340, 415, 421
- Pol Sci 320, 425
- Comp Sci 110
- Additional sociology electives to total 70 credits

Social Psychology: Advisers --Mahoney, Knowles

- Core program
- Soc 330, 331, 430, 431, 432, 433
- Psych 403
- Additional sociology, psychology or mathematics electives to total 70 credits

Minor 25 credits

- Soc 202
- Soc 302
- Soc 321 or 330
- Electives under departmental advisement

Sociology

BACHELOR OF SCIENCE

Major 90 credits

- Math 121, 220, 241, 341, 342
- Computer Science 110, 211
- Soc 202, 302, 303, 310, 321, 330, 415, 421, 430, 492
- Additional credits under advisement in mathematics, computer science, sociology or cognate areas

DEPARTMENTAL HONORS

In addition to the general requirements for all honors students, a sociology major who wishes to graduate "with honors" must demonstrate a reading knowledge of a foreign language and submit a senior thesis.

COURSES IN SOCIOLOGY

Key to Numbering System

- 01-09 Concepts and Theory
- 10-19 Methods and Statistics
- 20-29 Demography and Ecology
- 30-39 Social Psychology
- 40-49 Organizations
- 50-59 Deviance and Control
- 60-69 Institutions

- 202 INTRODUCTION TO SOCIOLOGY (5)
Introduction to the analytical study of social phenomena.
- 251 SOCIOLOGY OF SOCIAL PROBLEMS (5)
Prerequisite: Soc 202 or equivalent. A survey of selected social problems, conditions and issues from the sociological perspective.
- 261 SOCIOLOGY OF SOCIAL WORK (5)
Social work and social welfare as institutions in American society. Principles of sociology as applied in social work practice.
- 300 SPECIAL PROJECTS (1-3)
Prerequisites: 10 credits in sociology and Conference Course Permit from instructor required before registering. Supervised reading and/or research in selected areas.
- 302 SOCIOLOGICAL THEORY I (5)
Prerequisite: Soc 202. The development of social thought in Europe and America during the nineteenth and twentieth centuries.
- 303 SOCIOLOGICAL THEORY II (5)
Prerequisite: Soc 302. Major contemporary perspectives in sociology.
- 310 INTRODUCTION TO RESEARCH METHODS (5)
Prerequisite: Soc 202. The nature of scientific theory; the development of social research; the basic methods and techniques of data gathering, processing and analysis.
- 311 EVALUATING SOCIAL PROGRAMS (5)
Prerequisite: Math 240 or equivalent. Methods of assessing the effectiveness of social programs.
- 313 SOCIAL PLANNING (5)
Prerequisites: Soc 202, 251, or Soc 261. Principles, problems and techniques of applying sociological knowledge to the planning process.
- 315 SOCIAL STATISTICS (5)
Prerequisite: Soc 202. Application of statistical reasoning and methods in sociological research.
- 321 INTRODUCTION TO DEMOGRAPHY (5)
Prerequisite: Soc 202. Provides a 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.
- 322 SOCIAL ECOLOGY (5)
Prerequisite: Soc 202. Development of human ecology as a discipline and its relationship to general ecology; basic concepts, theories, and methods developed by human ecologists as applied to the study of cities, community structures, and social areas; the ecosystem as a sociological frame of reference. Offered in alternate years.
- 323 URBAN SOCIOLOGY (5)
Prerequisite: Soc 202. Sociological analysis of cities, suburbs and metropolitan communities.
- 330 INTRODUCTION TO SOCIAL PSYCHOLOGY (5)
Prerequisite: Soc 202. A general introduction to the study of interpersonal behavior. Examination of the perception of others, attraction toward and liking of others, self evaluation, helping behavior, aggression, attitudes and their relationship to behavior, sexual behavior, types of interaction processes, childhood and adult socialization, deviance and conformity, personal space, environmental effects on behavior, sex role attitudes and behavior.
- 331 EXPERIMENTAL SOCIAL PSYCHOLOGY (5)
Prerequisites: Soc 202, 310, 315. The application of scientific methods to the study of social behavior using experimental designs primarily as derived from the analysis of variance. Lecture and laboratory.
- 333 SOCIOLOGY OF AGING (5)
Prerequisite: Soc 202. Analysis of societal age structure; age status and age-sex roles; social and social-psychological correlates of aging; continuities over the life cycle; intergenerational relations; social attitudes and policies regarding aging and the aged. Offered in alternate years.
- 335 SOCIOLOGY OF MEDICINE, HEALTH AND ILLNESS (5)
Prerequisite: Soc 202. Examination of the distribution of health, illness and disease in American society by age, sex, race, ethnicity, socio-economic status and selected social-psychological factors. Particular emphasis on current research on psychosomatic factors in illness, disease and treatment response.
- 337 SOCIOLOGY OF SEXUAL BEHAVIOR (5)
Prerequisite: Soc 202. Sociological analysis of varying forms of sexual behavior and the place of sexual behavior in society and the world of the individual. Examination of patterns of heterosexual behavior over time and by age, sex, race, social class, residence, religion and values; the sexual revolution; sexual behavior as a business; socialization patterns leading to forms of sexual behavior; "deviant" sexual behaviors.

- 340 **COMMUNITY ORGANIZATION (5)**
Prerequisite: Soc 202. The study of the development, structure, and interrelationships of social systems that address the definition and solution of problems facing people within specified geographical areas.
- 351 **SOCIOLOGY OF DEVIANT BEHAVIOR (5)**
Prerequisite: Soc 202. Examination of labeling and behavior processes in deviance. Analysis of labeling by both the public and formal agencies such as the police and courts; effects of labeling and the behavioral characteristics of deviant lifestyles.
- 352 **CRIMINOLOGY (5)**
Prerequisite: Soc 202. Adult crime as defined within a legal context. The extent and meaning of crime as documented by available data. Various forms of crime, their relationship to specific sociological variables and explanations of their causation.
- 353 **JUVENILE DELINQUENCY (5)**
Prerequisite: Soc 202. Juvenile delinquency as a social phenomenon with emphasis on the distinction between delinquency and delinquent behavior and the factors related to juveniles moving from delinquent behavior to delinquency. The extent and correlates of delinquent behavior; group and gang delinquency; the juvenile justice system.
- 354 **TREATMENT AND CORRECTIONS (5)**
Prerequisite: Soc 202. Analysis of the structure and processes of law enforcement and corrections. The police, courts and correctional institutions. Community-based corrections and probation and parole.
- 360 **SOCIOLOGY OF THE FAMILY (5)**
Prerequisite: Soc 202. Analysis of the family as an institution and network of relationships in American life.
- 362 **POLITICAL SOCIOLOGY (5)**
Prerequisite: Soc 202. Sociological aspects of political phenomena, with emphasis on power and authority, conflict and change.
- 363 **SOCIOLOGY OF RELIGION (5)**
Prerequisite: Soc 202. Relations between religion and other elements of social structure; in particular, the political, economic and social impact of religious beliefs, behaviors and organizations, as well as the social determination of these beliefs, behaviors and organizations.
- 364 **SOCIAL STRATIFICATION (5)**
Prerequisites: Soc 310 and 315. Differentiation and evaluation of groups and individuals in society; the consequences for behavior in different spheres of society.
- 365 **PUBLIC OPINION (5)**
Prerequisite: Soc 202. Factors involved in the formation of public opinion; the role of mass media of communication and propaganda in a contemporary society. Offered in alternate years.
- 366 **SOCIOLOGY OF SPORTS, RECREATION AND LEISURE (5)**
Prerequisite: Soc 202. The social organization and distribution of professional and non-professional sports activity in American society; the sociological and social-psychological factors related to involvement and participation in professional and non-professional sports; distribution and correlates of non-participant sports involvement; performance, competition, and spectatorship as related to various sociological variables including sex and age. Analysis of the distribution and correlates of non-work time behavior and specific leisure behaviors in American society. Offered in alternate years.
- 367 **SOCIOLOGY OF WORK AND OCCUPATIONS (5)**
Prerequisite: Soc 202. Sociological and social-psychological significance of work; factors affecting contemporary occupational structures; factors associated with typical career patterns and choices with particular attention to life cycle changes in occupational and work orientations; sex, race, ethnic and social class differences in occupational choice and involvement; the structural characteristics of selected occupational areas.
- 368 **SEX ROLES AND SOCIAL STRUCTURE (5)**
Prerequisite: Soc 202. Socially constructed differences between the sexes; processes of socialization into sex roles; reactions to deviation from traditional sex role behavior; the connection between family structure and interaction and institutions in society with regard to sex role differentiation and socialization; the effect on life chances of sex socialization; sex typed behavior as a criterion for assuming "normal" adult status; sex roles and occupational entrance and structure; sex typing variations in the occupational structure of industrial societies; changes in sex role playing.
- 396a,b,c **HONORS TUTORIAL (3-5 ea)**
- 397a **MONKEYS, APES AND MAN (2)**
Prerequisite: upper-division standing. Review current studies on the social behavior of non-human species, principally the behavior of man's closest relatives, the primates. (Offered summer 1977.)
- 400 **SPECIAL PROJECTS (1-3)**
Prerequisite: 25 credits in sociology and Conference Course Permit from instructor required before registering. Supervised reading and/or research in selected areas.
- 410 **RESEARCH (3-5)**
Prerequisite: permission of instructor. Investigation of a problem through field or library research.
- 415 **ADVANCED QUANTITATIVE METHODS (3)**
Prerequisite: Soc 315 or equivalent. Experimentation and tests of significance applied to research problems.
- 421 **DEMOGRAPHIC ANALYSIS (3)**
Prerequisites: Soc 315, 321, or equivalents. Theory and method of population analysis; measures of mortality, fertility and migration; population forecasting techniques.
- 422 **SEMINAR IN SOCIAL ECOLOGY (3)**
Prerequisite: Soc 322. Review of contemporary research in human ecology. Offered in alternate years.
- 430 **ADVANCED SOCIAL PSYCHOLOGY (3)**
Prerequisites: Soc 330 or Psych 340, Soc 310, 315 or Psych 306. Designed for students with a continued interest in social psychology and set as an advanced sequel to Soc 330. Specific course content is determined by student's previous course work and interests in social psychology. Emphasis is placed on in-depth examination of selected topics of current research interest in social psychology with students gaining experience in design, methods, measurement and analysis in social psychological research.
- 431 **THEORIES IN SOCIAL PSYCHOLOGY (3)**
Prerequisites: Soc 310, 315 (or Psych 306), Soc 330. A critical examination of selected theoretical orientations in social psychology, emphasizing related research literature as it bears upon evaluation of theories. Offered in alternate years.
- 432 **SOCIALIZATION (3)**
Prerequisites: Soc 202, 330 (or Psych 315). A survey of the factors and conditions which facilitate or retard the development of social behavior over the life cycle.

Sociology

- 443 **SMALL GROUP THEORY AND RESEARCH (3)**
Prerequisites: Soc 202 and 330. Classical and current theory and research on small group interaction, with a focus on the structures and processes of consensus, cooperation-conflict, interdependency, leadership, and cohesion.
- 435 **SOCIAL MOVEMENTS AND COLLECTIVE BEHAVIOR (3)**
Prerequisites: Soc 202 and 330. Study of processes whereby social movements are formed to attempt to bring about major social changes; organizational structure and social psychological dynamics of social movements; the consequences of social movements for society in general and for the members themselves. Offered in alternate years.
- 440 **SOCIOLOGY OF ORGANIZATIONS (3)**
Prerequisites: Soc 302, 310, 315. Sociology of organizations is an introduction to the study of organizational systems. The structure and function of organizations, their environments, resources and goals will be analyzed as they interact with each other in a system of interrelated variables.
- 452 **SEMINAR IN CRIMINOLOGY (3)**
Prerequisites: Soc 202 and two courses from Soc 352, 353, 354. An in-depth examination of selected areas in sociological criminology.
- 454 **SOCIOLOGY OF LAW (3)**
Prerequisite: Soc 202. The interrelationship between law and society. The law as an aspect of social control and the law in action. Legislative and judicial law-making; substantive and procedural laws and their impact on defendants and plaintiffs. Offered in alternate years.
- 455 **SOCIO-LEGAL CONCERNS OF WOMEN (3)**
Prerequisite: Soc 202. This course, the content of which centers around 14 video tapes used as discussion topics, deals with legal problems of women. The topics include historical aspects of women's drive for equality and civil and criminal matters affecting women's daily lives. All topics are illustrated by the state laws of Washington.
- 465 **SOCIOLOGY OF ADOLESCENCE (3)**
Prerequisites: Soc 202, 330 or equivalents. Age-sex status definition and role taking; institutional and processual aspects of maturation.
- 466 **SOCIOLOGY OF EDUCATION (3)**
Prerequisites: Soc 202, 330 or equivalents. Institutional, organizational, and interpersonal aspects of schools and schooling; emphasis on research on educational issues.
- 467 **RACIAL AND CULTURAL MINORITIES (3)**
Prerequisite: Soc 202. Sociological and socio-psychological aspects of minority group situations and minority relations with the larger society; emphasis on non-white subcultures in the United States.
- 490 **READING AND CONFERENCE (3-5)**
Prerequisite: Conference Course Permit from instructor required before registering. The specific study topic will be determined by the instructor, in consultation with each student.
- 491 **FIELD EXPERIENCE PRACTICUM (15)**
Prerequisites: junior status; completion of Soc 302, 310, 330; permission of sociology department advising committee. Participant observation in research and applications in human services agencies and organizations.
- 492 **SENIOR THESIS (5)**
Prerequisite: Bachelor of Science major. Supervised independent research in partial completion of the requirements for the Bachelor of Science in sociology degree. The student will normally undertake such research upon completion of all other courses required for the degree.
- 494 **TEACHING - LEARNING PROCESSES IN INTRODUCTORY SOCIOLOGY (3)**
Prerequisites: 25 credits in sociology and written permission required from instructor before registering. Practicum as discussion leaders in Soc 202.
- 496a,b,c **HONORS TUTORIAL (3-5 ea)**
- 501 **PRO SEMINAR IN SOCIOLOGY (2)**
Prerequisite: graduate status in sociology and permission of instructor. S/U grading. Presentation of research reports by faculty and advanced graduate students, designed to familiarize students with examples of research and attendant problems: values, professional ethics, organization and utilization of sociological resources, etc.
- 502 **SEMINAR: HISTORY OF SOCIAL THOUGHT (3)**
Prerequisite: Soc 302, 303 or equivalent. Review and evaluation of major nineteenth and early twentieth century theories of social organization and change.
- 503 **SEMINAR: CONTEMPORARY SOCIOLOGICAL THEORY (3)**
Prerequisite: Soc 502 or equivalent. Review and evaluation of major contemporary perspectives in sociology.
- 510 **SEMINAR IN METHODOLOGY (3)**
Prerequisite: Soc 415 or equivalent. Analysis and evaluation of the procedures, assumptions and modes of explanation employed in sociological research.
- 521 **SEMINAR: DEMOGRAPHY (3)**
Prerequisites: Soc 321 or equivalent, Soc 315 or equivalent, or permission of instructor. Critical review of demographic theory, methods and applications in the light of contemporary world population problems.
- 530 **SEMINAR: SOCIAL PSYCHOLOGY (3)**
Prerequisite: Soc 330 or equivalent. Theoretical approaches, research methods and findings concerning identity, communication, task, performance, deviation, sanctioning, leadership, and other processes occurring in face-to-face and extended social interaction contexts.
- 540 **COMPLEX ORGANIZATIONS (3)**
Theory and research on structure and processes of large-scale formal organizations in Western society; industrial-commercial, governmental, religious, military, political and educational organizations.
- 551 **SEMINAR: SOCIAL CONTROL AND DEVIANCE (3)**
Critical review of theories and concepts of deviance: analytic and philosophic problems of attempts at programmed social control.
- 566 **SOCIOLOGY OF HIGHER EDUCATION (3)**
Prerequisites: graduate status and permission of instructor. A sociological study of students in the academic community with particular reference to residential colleges and universities. Historical and contemporary determinants of student subculture and its relationship to faculty, college administration and the society.
- 690 **THESIS RESEARCH (3)**
Prerequisite: formal advancement to candidacy for the M.A. in sociology. S/U grading only.
- 691 **THESIS (3)**
Prerequisite: formal advancement to candidacy for the M.A. in sociology. S/U grading only.



SPEECH

College of Arts and Sciences

The Department of Speech offers majors in speech communication, broadcast communication, and speech pathology and audiology, and specialized majors in speech education. Four speech degrees are granted: the Bachelor of Arts, the Bachelor of Arts in Education, the Master of Arts, and the Master of Education. The Bachelor of Arts degree in speech can lead to placement in industry, government, or one of the professions. The Bachelor of Education degree gives certification for elementary or secondary school teaching. A master's degree is ordinarily the requirement for community college teaching and other professional work.

SPEECH COMMUNICATION

Concentrations in speech communication at the bachelor level are useful as bases for such professions as law or the ministry, or careers in

advertising, personnel, sales, the diplomatic corps, and public relations. Speech consultants are employed by labor unions, elected officials and as communication specialists by various industries.

Undergraduates are offered a wide variety of communication opportunities: an extensive program of forensic activities in which students may participate regardless of their chosen major and a speakers' bureau, offering speaking experience before schools and community organizations.

BROADCAST COMMUNICATION

A major concentration in broadcast communication allows the student to develop specific skills which may be applied to future vocational opportunities in broadcasting and other fields which utilize mass communication media.

Speech

In radio and T.V. production classes students participate in a regular series of radio and television broadcasts. In addition, a limited number of work-study programs in radio and television are available.

SPEECH PATHOLOGY AND AUDIOLOGY

Speech pathology and audiology are disciplines which have developed out of a concern for people with speech, language and hearing disorders. Preparation leading to certification as a Communication Disorders Specialist (CDS) features a wide range of coursework and a variety of clinical practicum opportunities working with handicapped adults and children. Students intending to enter this profession, whether in the public schools or in clinics, centers or hospitals, are advised that clinical certification by the American Speech and Hearing Association requires the completion of the master's degree program, or its equivalent. Students who plan to practice in the public schools should follow the certification program for the Communications Disorders Specialist through the WWSC-BEA-BPS Consortium.

Those who intend to be classroom teachers at the elementary school level often find the speech pathology and audiology major (Bachelor of Arts in Education) or coursework in speech and language development helpful in understanding and working with children. Such a program often combines the speech pathology and audiology major and an elementary minor; however, it does not lead to certification as a Communication Disorders Specialist. Certification as a CDS in the State of Washington is obtainable through consortium participation only.

For further information, contact the director of speech pathology and audiology.

SPEECH EDUCATION

Speech graduates with the Bachelor of Arts in Education at the secondary level find that the most common assignment is one involving not only speech and debate, but English as well. The Department of Speech offers an interdisciplinary major in Speech/English to prepare for this type of assignment. As much of the elementary classroom activity involves communication skills, it is recommended that the prospective teacher select a speech program to accompany an elementary major or minor.

Programs leading to Master of Arts and Master of Education degrees are also available. See the *Graduate Bulletin*.

The Department of Speech offers broad opportunities for learning. Further information and guidance may be obtained by speaking with the department chairman, College Hall 103, or calling (206) 676-3869 or 676-3870.

SPEECH FACULTY

- ARTHUR L. SOLOMON (1969) Chairman. Professor. BA, Antioch College; MA, University of North Carolina; PhD, Stanford University (Speech Communication, Speech Pathology and Audiology, Interpersonal Communication).
- LAURENCE W. BREWSTER (1948) Professor. BA, Yankton College; MA, PhD, University of Iowa (Speech Communication, Speech Education).
- SENE R. CARLILE (1947) Professor. BA, BS, Fort Hays, Kansas State College; MA, Colorado State College; PhD, University of Wisconsin (Speech Communication, Speech Pathology/Audiology).
- PAUL E. HERBOLD (1952) Associate Professor. BA in Ed, Western Washington State College; MA, University of Washington; PhD, University of Minnesota (Speech Communication, Broadcast Communication).
- CAROL C. McRANDLE (1975) Associate Professor. BS, University of Minnesota, Duluth; MS, PhD, Purdue University (Speech Pathology/Audiology).
- MARVIN L. OLMSTEAD (1969) Associate Professor. BS in Ed, Black Hills Teachers College; MA, Washington State University; PhD, University of Washington (Speech Communication).
- SAMUEL B. POLEN (1972) Associate Professor. BS, Kent State University; MA, Ohio University; PhD, Ohio University/College of Communications (Speech Pathology/Audiology).
- LARRY S. RICHARDSON (1970) Associate Professor. BA, Western Washington State College; MEd, Central Washington State College; MA, PhD in Speech, Washington State University (Speech Communication, Debate/Forensics).
- ERHART A. SCHINSKE (1957) Professor. BA, Hamline University; MA, PhD, University of Minnesota (Speech Pathology/Audiology).
- MICHAEL T. SEILO (1970) Associate Professor. BS, Northern Michigan University; MA, University of Arizona; PhD, Ohio University (Speech Pathology/Audiology).
- ALDEN C. SMITH (1966) Associate Professor. BS, Florida Southern College; MS, Syracuse University; PhD, University of Illinois (Broadcast Communication, Speech Communication).
- LOREN L. WEBB (1965) Professor. BS, University of California, Berkeley; MA, University of Redlands; PhD, University of Washington (Speech Pathology and Audiology).

AFFILIATED CLINICAL STAFF— SPEECH PATHOLOGY & AUDIOLOGY

- TANNIA HECHT (1975) Clinical Supervisor, Speech Pathology. BA, University of the Pacific; MA, San Francisco State.
- JANICE POLEN (1975) Coordinator Extern Programs, Speech Pathology and Audiology. BS/Ed, Kent State University; MA, Ohio University.
- RUTH PRATT (1975) Clinic Coordinator, Speech Pathology. BA, Heidelberg College; MA, Ohio University. CCC-Sp.
- MICHAEL WIPPLINGER (1973) Clinical Supervisor, Speech Pathology. BA, Northern Michigan University; MA, University of Washington. CCC-Sp.

BACHELOR OF ARTS*Major—Speech Communication* 73 credits

- One of the following: Speech 100, 301, 302
- Speech 204, 205, 304, 309, 319, 340, 350, 407, 490
- 20 credits in speech under departmental advisement
- 17 credits in supporting courses taken outside the Speech Department under departmental advisement

(Program approval must be obtained during the quarter in which the major is declared. Any changes or deletions must be approved by the departmental adviser.)

Minor—Speech Communication 28 credits

- One of the following: Speech 100, 301, 302
- Speech 304, 309, 319, 340
- 12 credits in speech communication under departmental advisement

Major—Broadcast Communication 73 credits

- One of the following: Speech 100, 301, 302
- Speech 240, 304, 309 or 405, 340, 343, 449
- 30 credits from Speech 204, 241, 300, 309, 319, 341, 342, 345, 346, 350, 373, 400, 401, 404, 405, 407, 409, 441, 442, 443, 444, 445a, 481, taken under departmental advisement
- Journalism 104 and 18 credits of additional supporting courses taken outside the Speech Department under departmental advisement

Minor—Broadcast Communication 30 credits

- One of the following: Speech 100, 301, 302
- Speech 240, 241, 304, 319, 340, 342, 343
- Journalism 104
- Electives under departmental advisement

Major—Speech Pathology & Audiology 50 credits

- Speech 351, 352, 353, 354, 356, 361
- Speech 373, 452, 453, 454, 457, 458, 459, 461, 498
- Electives under departmental advisement

Minor—Speech Pathology & Audiology 25 credits

(A minimum of 25 credits. More than 25 are recommended.)

- Speech 351, 354, 356, 361, 461
- Electives under departmental advisement

BACHELOR OF ARTS IN EDUCATION*Major—General Classroom for Elementary Teachers* 45 credits

- Speech 203, 304, 319
- Speech 351, 354, 373, 484
- Recommend Theatre/Dance 101, 350, 450
- Electives under departmental advisement

Minor—General Classroom for Elementary Teachers 25 credits

- Speech 484
- One of the following communication skills courses taken under departmental advisement: Speech 203, 204, 304, 319
- Three courses from: Speech 350, 351, 354, 373
- Recommend Theatre/Dance 101, 350, 450
- Electives under departmental advisement

Major for Secondary Teachers 60 credits

- Speech 202, 204, 304, 319, 350, 407, 485
- Completion of any *three courses* in any *two* of the following modules:
 - Broadcasting: Speech 240, 241, 340, 342, 343
 - Communication Theory: Speech 309, 404, 405 and 409
 - Forensics: Speech 205, 206 (4 credits), 406 (4 credits), 486
 - Theatre: Theatre/Dance 101, 212, 322, 360, 370
 - Electives under departmental advisement

Minor for Secondary Teachers 30 credits

- Speech 202, 204, 205, 304, 319, 350, 485
- Recommend Theatre/Dance 212, 370
- Electives under departmental advisement

Major—Speech Pathology & Audiology 45 credits

Minor in elementary education required.

- Speech 351, 352, 353, 354, 356, 361, 373, 452, 454, 455, 457, 461, 498
- Electives under departmental advisement

The program leading to certification as a speech pathologist and/or audiologist in the public schools has been formulated by a consortium consisting of Western, the Bellevue Public Schools and the Bellevue Education Association. For details regarding academic, clinical and internship requirements, please consult area adviser.

The American Speech and Hearing Association recommendation for certification of speech

Speech

therapists includes a minimum of 90 quarter hours academic preparation. Such preparation would extend into the fifth year or graduate degree program. Consult the department for details.

Minor—Speech Pathology & Audiology 25 credits

(A minimum of 25 credits. More than 25 are recommended.)

- Speech 351, 354, 356, 361, 461
- Electives under departmental advisement

Interdisciplinary Speech/English Major Concentration 90 credits

(Satisfies both major and minor and leads to teaching competency in both speech and English.)

Speech 45 credits

- Speech 204, 304, 319, 407, 485, 490
- Completion of any *three courses* in any *two* of the following modules:
 - Broadcasting: Speech 240, 241, 340, 342
 - Communication Theory: Speech 309, 350, 405
 - Forensics: Speech 205, 206 (4 credits), 486
 - Theatre: Theatre/Dance 101, 212, 360, 370
- Electives in speech under departmental advisement

English (see listing under English) 45 credits

GRADUATE STUDY

For concentrations in speech or speech pathology and audiology leading to the Master of Education or Master of Arts degree, see *Graduate Bulletin*.

COURSES IN SPEECH

For a listing of speech courses which satisfy the General College Requirements, see the College of Arts and Sciences section of this catalog.

- 100 FUNDAMENTALS OF SPEECH (3)
Functional approach to effective communication; application of principles to practical problems in speech. Teacher education sophomores (or above) needing the general college requirement are advised to take Speech 302. Liberal arts transfer students are advised to take Speech 301.
- 202 PARLIAMENTARY PROCEDURE (1)
Parliamentary principles and procedures.
- 203 VOICE AND ARTICULATION IMPROVEMENT (3)
Background on the speaking process; theory and practice designed to improve articulation, projection, and vocal quality. (See Speech Office for Exemption Test.) Grading will be S/U only.

- 204 SMALL GROUP PROCESSES (4)
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.
- 205 ARGUMENTATION (4)
Theory and practice of principles of reasoned discourse as applied to public discussion of controversial issues.
- 206 INTERCOLLEGIATE FORENSICS (2)
Debate, extemporaneous, and impromptu speaking, and interpretive reading and other phases of forensics. A maximum of 6 credits may be earned.
- 240 INTRODUCTION TO BROADCASTING (3)
Theory and technique of basic broadcast procedures; use of recording and transmitting equipment; fundamentals of broadcast speech; contemporary broadcast facilities and practice.
- 241 BROADCAST COMMUNICATION I (3)
Prerequisite or concurrent: Speech 240 or permission. Laboratory practice in applying communication skills to broadcast media; gathering, preparation and delivery of radio news.
- 300 SPECIAL PROBLEMS (1-3)
Prerequisite: permission of instructor. Investigation of special problems in the field of speech.
- 301 SPEECH COMMUNICATION (3)
An investigation and analysis of problems and questions raised when man is involved in the act of communication either as a speaker or listener. Recommended for transfer students who are in liberal arts.
- 302 SPEECH FOR THE TEACHER (3)
Open only to teacher education students without Speech 100. Communication principles and applications to assist prospective teachers in the development of their individual speech skills and to prepare them to meet the communication needs of their students.
- 304 PUBLIC SPEAKING (3)
Prerequisite: Speech 100, 301 or 302. Theory and practice in the art of public discourse.
- 309 HUMAN COMMUNICATION I (4)
Theories and processes of human communication; contributions of social sciences to communication theory, models and theories of intrapersonal and interpersonal communication.
- 319 ORAL INTERPRETATION (3)
Art and techniques of oral interpretation as method of literary criticism and means of communicating total meaning of a literary work to an audience.
- 340 INTRODUCTION TO MASS COMMUNICATION MEDIA (3)
Development of mass media; newspapers, films, radio and television; their contemporary role in society.
- 341 BROADCAST COMMUNICATION II (3)
Prerequisites: Speech 241, 340. Laboratory practice in production of radio news and public service programs.
- 342 T/V PRODUCTION I (3)
Prerequisite: Speech 340 and written permission of the broadcast adviser. Theory and technique of basic television production. Laboratory practice utilizing instructional media facilities. Also offered as Tech 342.
- 343 BROADCAST WRITING (3)
Prerequisite: Speech 240 and Journalism 104. The preparation of news, advertising and public service copy for radio and television.

- 345 **THE ART OF FILM (3)**
Film as distinguished from but related to other art forms; film aesthetics; technology. Also offered as Theatre/Dance 301.
- 346 **FILM GENRE (3)**
Distinctive elements of melodrama, comedy, serious drama, documentary or fantasy. Also offered as Theatre/Dance 302.
- 350 **BASES OF SPEECH (4)**
Bases of verbal communication, physical, physiological and phonetic. Practice in phonetic transcription.
- 351 **INTRODUCTION TO COMMUNICATION DISORDERS (3)**
Survey of speech disorders; identification, classification, and the fundamentals of therapy.
- 352 **ANATOMY AND PHYSIOLOGY OF SPEECH MECHANISMS (4)**
Structure and function of organs concerned with audition, cerebration, respiration, phonation, resonance, articulation.
- 353 **SPEECH SCIENCE (4)**
Prerequisite: Speech 352. Required for speech pathology and audiology majors. Acoustic properties of the speech signal and their relation to speech production and perception.
- 354 **SPEECH AND LANGUAGE DEVELOPMENT IN CHILDREN (3)**
Normal 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.
- 356 **ARTICULATION DISORDERS AND THERAPY (3)**
Prerequisites: Speech 351, 352. Symptomatology, etiology, and therapy for articulation disorders.
- 361 **LANGUAGE LEARNING DISABILITIES IN CHILDREN (3)**
Prerequisites: Speech 351, 354, 357. Etiologies of language learning disabilities in children: diagnosis and treatment procedures.
- 373 **PHONETICS (3)**
Training in recognition and production of sounds of spoken English through use of the International Phonetic Alphabet.
- 397d **PROFESSIONAL CAREER COMMUNICATION (3)**
Prerequisites: English 101 and Speech 100. This interdisciplinary course orients students to the world of work, expands their understanding of career opportunities, and gives specific experiences in job-seeking skills (letter writing, resume writing, and interviewing theories and practices). Also offered as English 397d. S/U grading.
- 400 **SPECIAL PROBLEMS (1-3)**
Prerequisite: permission of instructor. Investigation of special problems in the fields of speech.
- 401 **SPEECH WRITING (3)**
Prerequisite: Speech 304. Manuscript preparation for selected audiences; theory and practice.
- 404 **SMALL GROUP LEADERSHIP (4)**
Prerequisite: Speech 204. Exploration of concepts of leadership of small groups in both formal and informal settings. Development of leadership skills.
- 405 **PERSUASION (4)**
Study of principles that influence attitudes and opinions in persuasive situations.
- 406 **ADVANCED FORENSICS AND DEBATE (2)**
Prerequisite: 6 credits in Speech 205 and/or Speech 206. Emphasis on intercollegiate debate with opportunity for experience in extempore, impromptu, and persuasive speaking. A maximum of six credits may be earned in Speech 406; a combined total of six credits from Speech 206 and Speech 406 may be applied to a major in speech.
- 407 **INTERPERSONAL COMMUNICATION (4)**
Experiences and skill training in small group settings to promote interpersonal relationships and to overcome communication barriers. Grading will be S/U only.
- 407w **WORKSHOP IN INTERPERSONAL COMMUNICATION (1-3)**
Prerequisite: upper-division standing or equivalent experience. For individuals engaged in the helping professions who wish to enhance their self understanding, self expression, and to improve communication and relationship skills relevant to all human interaction. Variable credit depending on the amount of contact hours. Grading will be S/U only.
- 409 **HUMAN COMMUNICATION II (4)**
Prerequisite: Speech 309. Theories and processes of human communication, verbal and non-verbal; models and theories of message systems; investigation of group, organizational and mass communication, including the diffusion of innovation.
- 416 **ADVANCED FORENSICS: ANALYSIS OF PUBLIC POLICY ISSUES (4)**
Prerequisite: experience debating the current debate resolution. Application of models from argumentation theory and field or fields pertaining to the national resolution. Presentation of research papers, seminars and public presentations involving guest faculty from appropriate disciplines.
- 419 **ADVANCED ORAL INTERPRETATION (3)**
Prerequisite: Speech 319. Techniques in communicating effectively the intellectual and emotional meanings of prose, poetry and drama. Reading aloud of dramatic monologues and soliloquies; activities in Readers Theatre.



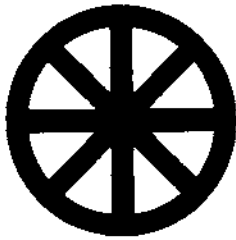
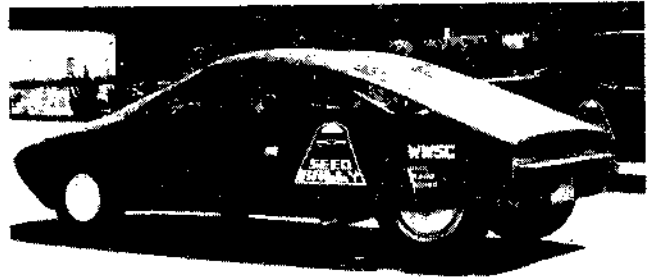
Speech

- 441 **PRODUCING AND DIRECTING THE BROADCAST PROGRAM (4)**
Prerequisite: Speech 341, 342. Production and direction for radio and closed circuit instructional television; preparation and execution of scripts; studio practice with radio and television equipment.
- 442 **TELEVISION NEWS PRODUCTION (2)**
Prerequisites: Speech 341, 342, Journalism 104 and written permission of instructor. Development of broadcast communication skills. Practice in preparation and presentation of televised news. A maximum of 8 credits may be earned. (Concurrent enrollment in Journalism 431, 432, or 433 recommended.)
- 443 **T/V PRODUCTION II (3)**
Prerequisite: Speech 342 or Tech 342 and written permission of the broadcast adviser. Advanced theory and technique of television production. Laboratory experience utilizing instructional media facilities.
- 444 **PRODUCING AND MODERATING TELEVISION DISCUSSION (3)**
Prerequisite: Speech 204 or 404. Theory and practice in planning and leading on-camera discussion. Topic determination, panelist selection, outline writing, pre-airing briefing, facilitation of participation, and criticism of videotaped playbacks.
- 445a **NEW DEVELOPMENTS IN THE ART OF FILM (3)**
New developments in film as an art form. The course will cover the latest experiments in new methods of expression, as they would be defined by aesthetic principles. Also offered as Theatre/Dance 401.
- 449 **FIELD INTERNSHIP IN MASS COMMUNICATION (1-6)**
Prerequisite: junior standing and written permission of instructor. Supervised work in mass communication for a broadcast station, educational institution, or other appropriate governmental agency or private enterprise. Grading will be S/U only.
- 452 **DIAGNOSTIC METHODS IN SPEECH AND LANGUAGE DEVELOPMENT (4)**
Prerequisites: Speech 351, 352, 353, 354, 356, 373 or permission of instructor. Methods, procedures, techniques, and instruments; supervised practice; planning therapy.
- 453 **PRACTICUM IN DIAGNOSTIC METHODS (3)**
Prerequisites: Speech 452 and permission of instructor. Clinical practicum in the administration of diagnostic tools in speech and language pathology.
- 454 **INTRODUCTION TO STUTTERING: THEORY AND THERAPY (3)**
Prerequisite: Speech 351. Characteristics of stuttering behavior; current theories of etiology of stuttering; principles and practices of therapy; cluttering as a related disorder.
- 455 **SPEECH THERAPY IN THE PUBLIC SCHOOLS (3)**
Prerequisites: Speech 351 and 357. Role of the clinician in organizing and directing a speech therapy program.
- 456 **ORGANIC SPEECH DISORDERS (3)**
Prerequisite: Speech 458. Symptomatology, etiology, and therapy for cerebral palsy, cleft palate, aphasia, dysarthria, and laryngectomy.
- 457 **METHODS IN SPEECH THERAPY (5)**
Prerequisite: Speech 356. Directed observation and evaluation of the methods, materials and techniques used in treating speech and language cases.
- 458 **INTRODUCTION TO CLINICAL PRACTICE IN SPEECH THERAPY (2)**
Prerequisites: Speech 351, 352, 353, 354, 356, 373, 452, 457 or permission of instructor. Supervised clinical practicum in therapy for the more prevalent voice and articulation disorders.
459. **460 CLINICAL PRACTICE IN SPEECH THERAPY (3 ea)**
Prerequisite: permission of instructor. Continuation of Speech 458.
- 461 **INTRODUCTION TO AUDIOLOGY (5)**
Structure and function of auditory mechanism; basic acoustics as related to determination of hearing level; psychophysics of audition; nature of hearing loss.
- 462 **AUDIOMETRIC TESTING (4)**
Prerequisite: Speech 461. Theory and application of pure tone and speech audiometry to evaluation of hearing function; implications for rehabilitation.
- 463 **AURAL REHABILITATION (4)**
Prerequisite: Speech 461. Auditory training, speech reading and language training for the aurally handicapped.
- 464 **HEARING AIDS (3)**
Prerequisite: Speech 462. Description of hearing aids, hearing aid evaluation and auditory training in the rehabilitation of the auditorily handicapped.
- 465 **SIGN LANGUAGE OF THE DEAF (2)**
Theory and practice in use of the manual language methods for communication with the deaf.
- 465a **INTERMEDIATE SIGNING (2)**
Prerequisite: Speech 465. An introduction to the philosophy of total communication and the basic idea of Arnsian (sign language used by deaf people).
- 466 **MEDICAL AUDIOLOGY (3)**
Prerequisites: Speech 461, 462. The medical pathologies of the hearing mechanism and their auditory manifestations. Problems of diagnosis, referral and report writing.
- 467 **CLINICAL PRACTICE IN AURAL REHABILITATION (2)**
Prerequisite: Speech 463. Supervised practice in the rehabilitation of the hard of hearing.
- 468 **CLINICAL PRACTICUM IN AUDIOLOGY (1)**
Prerequisites: Speech 461, 462. Supervised clinical practice in audiologic evaluation.
- 469, 470 **CLINICAL PRACTICUM IN AUDIOLOGY (1 ea)**
Prerequisite: Speech 468. Supervised clinical practice in audiologic evaluation.
- 480 **HISTORY AND CRITICISM OF AMERICAN PUBLIC ADDRESS: 1740-1890 (3)**
Relationship of prominent speakers to American political, social and intellectual life; from Jonathon Edwards through Booker T. Washington. Normally offered in alternate years.
- 481 **HISTORY AND CRITICISM OF AMERICAN PUBLIC ADDRESS: 1890-PRESENT (3)**
Relationship of prominent speakers to American political, social, and intellectual life; William Jennings Bryan to contemporary speakers. Normally offered in alternate years.
- 482 **HISTORY AND CRITICISM OF BRITISH PUBLIC ADDRESS (3)**
Examination and analysis of representative speeches of selected British orators; 1700-present. Normally offered in alternate years.

- 483 HISTORY AND CRITICISM OF CANADIAN PUBLIC ADDRESS (3)
Critical examination of speakers and speeches concerned with significant issues—emphasizing those involving the U.S.A.—from 1800 to the present. Normally offered in alternate years.
- 484 SPEECH FOR THE ELEMENTARY TEACHER (3)
Methods of utilization of the speech arts in the elementary classroom.
- 485 TEACHING SPEECH IN THE SENIOR HIGH SCHOOL (3)
Prerequisite: 15 credits in speech. Materials and methods useful in teaching drama, interpretation, and public address.
- 486 DIRECTING THE FORENSICS PROGRAM (4)
Prerequisite: Speech 205 or 206 (taken for 4 credits). Conducting tournaments, criticizing debates and individual events, budgeting.
- 486s HIGH SCHOOL DEBATE COACH WORKSHOP (2)
Prerequisite: one year teaching experience or graduate student status. An intensive lecture, seminar and workshop program in pedagogy related to teaching of argumentation, debate and forensics. Purpose is improvement of instruction. (Summer only.)
- 487s DISCUSSION TECHNIQUES FOR TEACHERS AND ADMINISTRATORS (3)
Cultivation of attitudes and skills to aid teachers and administrators to engage in and lead discussions with greater competency. (Summer only.)
- 488 BUSINESS AND ORGANIZATIONAL COMMUNICATION (3)
Recommended for non-speech majors. Theory and practice in job interview, small group problem solving discussion, public discussion, and public speaking.
- 490 RHETORICAL THEORY AND PRACTICE—GREEK AND ROMAN (4)
Rhetorical principles and practices from the early Greek to the fall of the Roman Empire.
- 491 RHETORICAL THEORY AND PRACTICE—MEDIEVAL THROUGH MODERN (4)
Rhetorical principles and practices from the sixth to the twentieth centuries. Normally offered in alternate years.
- 495 CAMPAIGN SPEAKING: ANALYSIS AND CRITICISM (3)
Intensive study of the speaking of political office seekers. When appropriate, emphasis will be upon those seeking the presidency; however, regional, state and local figures will also be studied. (Summer only.)
- 497c SELECTED MEDICAL, DENTAL AND PHYSICAL ASPECTS OF LANGUAGE (1)
Prerequisite: CDS certification or practicing speech pathologist or juniors and above in training. A course designed to partially fill a critical need for continuing education for the Communication Disorders Specialist as well as a course that will complement other courses for those who are currently students in speech pathology. Offered fall, 1976.
- 498 SEMINAR IN SPEECH PATHOLOGY AND AUDIOLOGY (1)
Prerequisite: Speech 458. Restricted to speech pathology and audiology majors only. Methods of instruction, human relations in the public school setting, self evaluation of candidates as potential speech pathologists and audiologists. Observation and field experiences. Repeatable for a maximum of three credits. (S/U grading only.)
- 499 PUBLIC SCHOOL INTERNSHIP IN SPEECH PATHOLOGY AND AUDIOLOGY (8-16)
Prerequisite: completion of the undergraduate major requirements and permission of department. Supervised experience providing opportunities to develop and demonstrate clinical competence in the management of children with communication disorders. S/U grading only.
- 500 SPECIAL PROBLEMS (1-3)
Prerequisite: permission of instructor. For advanced students who wish to investigate special problems.
- 501 INTRODUCTION TO RESEARCH IN SPEECH (4)
Interpretation and evaluation of research outcomes; purpose and design of various methods, with particular emphasis on historical and descriptive methods.
- 502 BEHAVIORAL RESEARCH IN SPEECH (4)
Introduction to empirical research; basic methodology applied to current research in communication and speech.
- 505 SEMINAR IN PERSUASION (3)
Prerequisite: Speech 405. Readings in persuasion; logical and psychological modes of proof.
- 507 SEMINAR IN INTERPERSONAL COMMUNICATION (4)
Interpersonal communication in both group and dyadic situations; communication choice, social context, channels and nonverbal interaction.
- 540 SEMINAR IN MASS COMMUNICATIONS (3)
Prerequisite: undergraduate major in speech, or permission of instructor. Critical issues in the development, structure, and function of mass communications in a democratic society; responsibilities, means of control, and regulation.
- 550 VOICE DISORDERS AND THERAPY (3)
Prerequisites: Speech 351, 352. Pathological and psychological states affecting voice production; functional psychogenic and organic problems of pitch, quality, loudness. Experience in diagnosis and evaluation of voice disorders. Developing techniques and methods for treatment and therapy.
- 551 SEMINAR IN SPEECH DISORDERS: THEORY AND THERAPY (3)
Prerequisite: permission of instructor. Analysis and evaluation of recent concepts, issues, techniques, and methods applicable to speech disorders.
- 552 ADVANCED DIAGNOSTIC METHODS IN SPEECH AND LANGUAGE PATHOLOGY (3)
Prerequisite: Speech 452. Specialized methods, tests, and instruments used in diagnosis of more complex morphological and neuropathological disorders; supervised practice.
- 553 SEMINAR: LANGUAGE DISORDERS (3)
Prerequisites: Speech 354, 361. Abnormal speech and language acquisition and development with special focus on current research findings; communication disruption as result of brain injury, mental retardation, emotional disturbances and other organic and functional conditions.
- 554 SEMINAR: STUTTERING (3)
Prerequisite: Speech 454. Critical analysis of recent research findings relating to stuttering and cluttering disorders; chief rationale for therapy and evaluation of therapy procedures and results.
- 555 ADVANCED STUDIES IN LANGUAGE DEVELOPMENT IN CHILDREN (3)
Experimental findings and theoretical interpretations of normal speech and language acquisition with an emphasis on studies in syntax and semantics; origins and growth of symbolic processes; factors influencing learning of speech and language.

Speech

- 556 SEMINAR IN APIHASIA (3)
Prerequisite: Speech 456. Diagnosis and treatment of language impaired adults with specific brain injury patterns; aphasia, apraxia, dysarthria, etc.
- 557 CEREBRAL PALSY (3)
Prerequisite: graduate status; Speech 458 or equivalent course and permission of instructor. Survey of speech disorders; identification, classification and the fundamentals of therapy.
- 558 ADVANCED CLINICAL PRACTICE IN SPEECH THERAPY (3)
Prerequisites: Speech 458, 459 or permission of instructor. Supervised clinical practicum dealing with more complex cases.
- 559, 560 ADVANCED CLINICAL PRACTICE IN SPEECH THERAPY (3 ea)
Prerequisite: Speech 558. Continuation of Speech 558.
- 561 SEMINAR IN AUDIOLOGY (3)
Prerequisite: Speech 461. Study of basic auditory correlates and audiometric procedures.
- 562 ADVANCED AUDIOMETRY (3)
Prerequisite: Speech 462. Theory and application of advanced diagnostic audiometric procedures.
- 563 SEMINAR IN AURAL REHABILITATION (3)
Prerequisite: Speech 463. Research in the training of the hearing handicapped.
- 564 ADVANCED CLINICAL PRACTICE IN AURAL REHABILITATION (2)
Prerequisites: Speech 463 and 467. Supervised practice in rehabilitation of the hard of hearing.
- 565 PSYCHOACOUSTICS (3)
Prerequisites: Speech 561 and 574. Application of standard psycho-physical techniques and theory of signal detection to audiologic research.
- 566 BIOACOUSTICS (3)
Prerequisite: Speech 561. The ear as a transducer and analyzer; electro, physiological and mechanical properties of the ear.
- 567 INDUSTRIAL AUDIOLOGY (3)
Prerequisite: Speech 461. Problems in noise pollution; federal and state regulations regarding noise; noise induced hearing loss and the role of audiology in prevention and control.
- 568a,b,c ADVANCED CLINICAL PRACTICUM IN AUDIOLOGY (2 ea)
Prerequisites: Speech 461, 462, 468; to be taken in sequence. Clinical practicum designed to advance skills in audiology.
- 573 ADVANCED PHONETICS (3)
Prerequisite: Speech 373. The phonetic structure and symbolization of principal American and other English dialects and certain European languages.
- 574 EXPERIMENTAL PHONETICS (3)
Prerequisite: Speech 353. Study of laboratory investigations of phonetic problems; analysis and measurement of variables in speech production.
- 575 THE PARENT INTERVIEW (3)
Prerequisite: permission of instructor. A graduate seminar in interviewing parents having children with speech, hearing and/or other behavior problems. The readings, discussions and supervised practice with parents are focused on the skill, understanding and experience in establishing helping relationships.
- 585 INTERNSHIP IN THE TEACHING OF COLLEGE SPEECH (3)
Prerequisite: permission of instructor. Supervised teaching of the basic speech course.
- 588 SPEECH COMMUNICATION FOR EDUCATIONAL ADMINISTRATORS (3)
Application of the principles of effective communication to educational settings. Experience in conducting meetings, interviewing, speaking in public, and similar activities. Summer only.
- 595 SEMINAR IN RHETORICAL CRITICISM (4)
Prerequisite: Speech 501. Literature of rhetorical criticism and the application of rhetorical theory in the criticism of significant speeches.
- 597 SEMINAR IN CLEFT PALATE (3)
Prerequisite: Speech 351. Description, embryologic history, incidence, diagnosis and therapy of the cleft palate patient.
- 599 GRADUATE EXTERNSHIP IN SPEECH PATHOLOGY/AUDIOLOGY (3)
Prerequisite: completion of the undergraduate major requirements, permission of department, graduate status, and demonstrated proficiency in clinical skills. Supervised experience providing opportunities to develop and demonstrate clinical competence in the management of communication disorders. Grading will be S/U only.
- 690 THESIS (6-9)
- 691 WRITING SEMINAR: THE RESEARCH MONOGRAPH IN SPEECH (3)
Prerequisites: Speech 501 or 502 and written permission of instructor. Writing a scholarly article based on research and suitable in subject, content and style for a communication journal.
- 692 INTERNSHIP IN ADMINISTRATION OF SPEECH AND HEARING PROGRAMS (3)
Students enrolling must be within two quarters of program termination. Analysis of program funding; administrative structures within schools, hospitals and structures. A project report will be required in this course. This report may be used to help satisfy the Option II requirements.
- 693 INTERNSHIP IN SPEECH COMMUNICATION (3)
Prerequisite: permission of instructor. Supervised teaching of courses and/or units within courses in the area of speech communication and, where appropriate, assistance in the co-curricular programs of this area. A Field Project Report will be required. This report may be applied in partial fulfillment of the M.A., Option II requirement.
- 694 FIELD INTERNSHIP IN PUBLIC INFORMATION/MASS COMMUNICATION (6-12)
Prerequisite: permission of instructor. (Maximum credit will be granted only for a full-time training internship.) On-the-job experience in public information/mass communication work in an agency of government, educational institution, public service organization, or broadcasting station, or other private enterprise as approved by the Speech Department Graduate Committee. A Field Project Report will be required. This report may be applied in partial fulfillment of the M.A., Option II requirement.
- 696 INTERNSHIP IN SPEECH PATHOLOGY AND/OR AUDIOLOGY THERAPY (3)
Prerequisites: Speech 558, 559 and experience as a speech therapist and permission of instructor. Experimentation with new methods and materials, and clinical implementation of current practices; planning, directing and supervising speech clinicians. A Field Project Report will be required. This report may be applied in partial fulfillment of the M.A., Option II requirement.



TECHNOLOGY

College of Arts and Sciences

Many students are surprised and pleased to hear that Western offers technical education programs on its campus; indeed, the Department of Technology is the largest and strongest of its kind in the entire Northwest. Students enroll in the technology courses either because they are interested in completing one of the five major programs offered or because they are pursuing other majors or careers which are enhanced by skill and knowledge in a technical field. Some students take a limited number of technical courses because they enjoy working and learning in the shop setting and wish to include these activities in the elective portion of their college experience.

By counting the courses listed in this section of the catalog, students can be impressed by the number of courses (over 100) which are offered. By reading some of the titles and course descriptions, some understanding of the breadth of

offering can be gained. These courses can be divided, for convenience, into six major categories:

Graphic Communications Technology: These are the courses which deal in two-dimensional media and which involve the various ways by which man transmits information and thoughts through visual means. Included in this category are courses in industrial graphics and drafting, the graphic arts and photography. Actual courses included in this category are 160, 210, 210b, 211, 212, 237, 240, 260, 309, 310, 312, 313, 340, 341, 342, 344, 360, 362, 363, 413, 417r, 419, 440, 441, 442, 443, 444, 447, 448, 449, 460, 469, 540, 544, 545, 592g.

Materials and Manufacturing Technology: Courses in this category deal with skill and information pertaining to the ways man copes with his physical and material environment and with which he modifies and shapes basic materials for his own use. Included in the category are courses in

Technology

material science, metallurgy, material testing, wood technology (furniture design and construction, laminations), metals technology (material forming, casting, molding, shaping and machining), and polymer science (plastics, thermoplastics and thermosets). The specific courses offered in this area include 120, 221, 222, 223, 224, 231, 303, 320, 323, 325, 326, 328, 331, 333, 335, 417, 420, 421, 422, 428, 429, 433, 434, 439.

Mechanical and Electrical Technology: This category includes a study of power: its generation, transmission, control and utilization, and deals with the topics of fluid power (hydraulics, fluidics, pneumatics), power generation (internal heat engines, external combustion, solar energy), instrument control systems and power measurement, electrical power (motors, generators, transformers, distribution and control), communication (radio, television, facsimile, teletype), industrial (control and instrumentation), and electronics. Courses in this category include 270, 280, 281, 370, 371, 372, 375, 379, 380, 381, 382, 473, 477, 478, 479, 484, 489, 580.

Industrial Design: This is a study of the human and material factors, functional requirements and aesthetic considerations which are combined to solve the problems of product design. The courses offered in design include product design, design history, design factors and techniques. The Western Design Center, offered jointly by home economics and technology, is described on the pages following and relates to the design work of the Technology Department. Design courses offered include 214, 215, 311, 315, 316, 317, 318, 416, 418.

Driver Education: In order to teach driver education in Washington schools, four courses are required, including three of the following: 480, 481, 482, 483, 485, 487.

General and Professional Courses: These are the professional courses for those who wish to teach or for those from other departments or off-campus who have specific interests. One course (391) is for those who wish to study about the relationship of man and technology. Included here are 101, 301, 302, 350, 391, 392, 393, 394, 400, 402, 417, 459, 483, 490, 490a, 491, 492, 493, 494, 495, 496, 497, 499, 550, 590, 591, 592, 594, 595.

PROGRAMS AND MAJORS

There are five programs in the Department of Technology for those who wish to become majors; all five offer the Bachelor of Science degree.

Direct Transfer Program

A technical "block" transfer program has been

approved at WWSC. The program accepts transfer of 90 credits* applicable to the Bachelor of Science degree programs in the Department of Technology for students who have completed an Associate degree in technical arts or applied sciences, subject to the following conditions:

The community college degree program must include:

1. Mathematics through an introduction to calculus (to be counted toward WWSC general education requirement).
2. One course in physics (to be counted toward WWSC general education requirement).
3. At least 50 credits with a GPA of 2.5 in one of the following: electronics; drafting; graphic arts and visual communication; photography; power mechanics; or programs in industrial materials and processes.
4. An approved agreement between the community college and Western.

Industrial Arts

This teacher preparation program has been offered for over 70 years and is a traditional strength at Western. The program prepares teachers of technical subjects for the junior and senior high schools. Some graduates, if occupationally qualified, choose to teach in the vocational and technical programs of community colleges and technical institutes. For elementary teachers, industrial arts offers an activity approach to all subjects and ways of installing career awareness in the entire elementary program. The department houses a laboratory which features an individualized all-media approach to the content in career and technical education.

Industrial Design

The industrial design program is intended to provide students with a means of expressing creative ideas. It should help each individual develop the expression of attitudes, function and humanitarian esthetics in terms of industrial tools, techniques, operations and processes.

The design program provides each graduate with a foundation for understanding creative problem solving, for appreciating interrelationships of humanitarian philosophy, technological capabilities and esthetic expression. The course arrangement is designed to prepare professional graduates to enter our industrial culture as designers, planners, managers, illustrators, or specialists in industrial production or marketing. A complete description of the program is offered in this catalog under "Interdepartmental Programs."

*Excluding sub-college and/or remedial courses.

Industrial Technology

This program is for those who wish to enter supervisory and management levels of technical industries. Prospective students are encouraged to include physics, chemistry and mathematics in their high school preparation. Many employers are now seeking supervision, management and sales personnel who have the unique educational combinations offered in the industrial technology program at Western. That is, a general education with a liberal intent, extensive work in the sciences and mathematics, and breadth and depth in the theoretical and practical approaches to industries' basic materials, processes and problems. Industrial technology does not offer highly specialized engineering content; instead, the program provides graduates who have proven their industrial interests and the ability to meet the expectations of employers who emphasize continuing developmental and educational progress on the job. An increasing number of employers are seeking industrial technology graduates, and positions taken by recent graduates include the following examples: design associate, outside engineer, industrial design trainee, production management, media specialist, sales engineer, graphic illustrator, engineering assistant, industrial engineer and city-planning assistant.

Visual Communications Education (VICOED)

Growing out of an earlier graphic arts program, the Ford Foundation funded an innovative and interdisciplinary pilot program called visual communications education (VICOED). This program seeks to develop communicators who understand the processes of communication and who can select and use the appropriate elements (graphic arts, television, film, technical illustrations, photography, etc.). Graduates of this program have been placed in a variety of media-related positions in industry, government and education. Increasingly, schools, colleges and universities have sought VICOED graduates as media specialists in instructional technology. It should be noted that the VICOED program is carefully structured and extensive in nature; it is advantageous therefore for interested students to seek advisement and enrollment in VICOED early in their college careers. A complete description of the program is offered in this catalog under the "Interdepartmental Programs" listing.

Vocational Industrial-Technical Teacher Education

This degree program is designed to meet the needs of those individuals entering the field of vocational education. It is specifically designed for those

individuals in the trade, industrial and technical education fields. It is the responsibility of the individual to meet the Washington State Certification requirements for trade, industrial and technical vocational education teachers. The professional vocational education courses that are a component of this degree program are set up to meet the state certification standards. It is recommended that individuals entering this degree program possess the necessary qualifications to meet the work experience component of the Washington State Vocational Education Certification standards.

PLACEMENT

The Department of Technology does not comprise a vocational/technical program to the extent that it seeks to guarantee placement upon graduation. However, in its history the department has enjoyed one of the highest placement records of any program at Western; and the demand for technology graduates continues to be high. But it should be remembered that there are thousands of students in colleges who do not expect direct placement from their college careers; they are in higher education for other valid reasons. The liberal arts are in themselves frequently claimed to be the 'best' type of vocational education; technology majors are not denied the liberal arts. In addition, however, technology majors study in subjects which are germane to a modern technological society and, though their placement cannot be guaranteed, the combination of disciplines they have studied allows them to stand in an advantageous placement position regardless of the nature of current economic conditions. In short, technology does not rely upon narrow vocational goals and does not justify its effort solely upon placement possibilities. However, it is proud of its placement record and a prognosis which appears to be excellent.

THE WESTERN DESIGN CENTER

The Western Design Center (WDC) is a vehicle which serves to provide students with realistic design problems which are drawn from the actual needs of the surrounding area. The WDC is in constant correspondence with various governmental, charitable and similar non-profit agencies in order to seek out design problems which can be structured into assignments for the design students of home economics and technology. These assignments, then, become on-the-job situations and involve students in actual work with design clients.

Students interested in Design Center projects should consult the WDC personnel in home economics and technology.

TECHNOLOGY FACULTY

- CLYDE M. HACKLER (1974) Chairman.
Associate Professor. BS, Eastern Kentucky University; MEd, University of Illinois; EdD, University of Maryland.
- JOSEPH E. BLACK (1967) Associate Professor. BS, Lehigh University; BME, Cooper Union, New York; MME, New York University; PhD, Lehigh University. Registered Professional Engineer, Washington and California.
- JERRY L. BURWELL (1974) Assistant Professor. BA, MEd, University of Washington.
- GERRIT BYEMAN (1972) Instructor. BA, Western Washington State College.
- ROBERT D. EMBREY (1971) Assistant Professor. BA, MA, MFA, University of Oregon.
- RICHARD J. FOWLER (1965) Associate Professor. BA, MS, Washington State University; EdD, Texas A. & M. University.
- CLAUDE E. HILL (1967) Associate Professor. BA, MA, University of Washington.
- DONALD E. MOON (1966) Associate Professor. BS in Ed, California State College, California, Pa.; MA, Teachers College, Columbia University; EdD, Oregon State University.
- RONALD C. MUGGERUD (1973) Assistant Professor. Diploma, Oregon Technical Institute; BA, MEd, Oregon State University.
- FRED A. OLSEN (1961) Professor. BA, University of Washington; MS, Stout State University; PhD, The Ohio State University.
- SAM R. PORTER (1962) Professor. BA, Iowa State Teachers College; MA, Teachers College, Columbia University; EdD, University of Missouri.
- RAY A. SCHWALM (1949) Professor of Technology and Director, Visual Communication Education. BS, Millersville State College; MS, EdD, Oregon State University.
- MICHAEL SEAL (1968) Professor. BEd, University of British Columbia; MEd, Western Washington State College; EdD, Texas A. & M. University.
- MARVIN A. SOUTHCOTT (1969) Associate Professor. BA, University of Washington; MFA, Maryland Institute; IDSA.
- RICHARD F. VOGEL (1971) Associate Professor. BA, MAT, Washington State University; EdD, Texas A&M University.

- Additional course requirements – 25 credits from the following: Tech 391, 488, 491, 493 and 13 credits (minimum) in one or more of the following:
 - (a) Student-designed, departmentally approved interdisciplinary sequence (10 credits maximum)
 - (b) Additional upper-division technology courses
 - (c) Approved cooperative workstudy—Tech 402 (1-15) with maximum of 13 credits

Teaching Competence

Recommendation for teaching industrial arts certification requires the completion of the major and an overall GPA of 2.5 or better.

Professional sequence requires departmental advisement.

Minor 25 credits

Courses to be selected under departmental advisement.

Major—Industrial Technology 110 credits

Note: Industrial technology students will follow the usual General College Requirements sequence, but it is strongly recommended that they take Math 124 (5) or 250 (4) to satisfy the mathematics requirements, Chem 115 (5) or Chem 121 (5) and Physics 131 (4) in partial fulfillment of the science requirement, and Econ 201 (5) as partial fulfillment of the social science requirement.

BACHELOR OF SCIENCE

Major—Industrial Arts Education

79 credits minimum

- Breadth requirement - 34-40 credits from the following: Tech 210, 214, and six of the following: Tech 120, 231, 240, 260, 270, 280, 333 and one of the following: Tech 221, 222 or 223
- Depth requirement – 20 credits under advisement from one of the following groups:
 - (a) Graphic Communication Technology (industrial graphics, photography, industrial design)
 - (b) Materials and Manufacturing Technology (woods, metals, materials science, plastics, crafts)
 - (c) Mechanical and Electrical Technology (electricity, electronics, power mechanics)

- Technology core – Students must complete Tech 210 (5) plus seven of the following courses: Tech 120, 214, 223, 231, 240, 260, 270, 280, 333
- Technology emphasis – 34-36 additional credits from one of the following areas:
 - (a) Graphic Communications
 - (b) Materials and Manufacturing
 - (c) Mechanical and Electrical
- 20 additional credits related to the above emphasis from the following:
 - (a) Student-designed interdisciplinary sequence (10 maximum)
 - (b) Additional technology
 - (c) Cooperative workstudy (15 maximum)
- Supporting courses – 18 additional credits in the following: Computer Science 110; business and/or economics—at least 15

Minor 25 credits

Courses selected under departmental advisement.

Visual Communications (VICOED) Concentration

See Interdepartmental Programs section for specifications.

Industrial Design

See Interdepartmental Programs section for specifications.

Major—Vocational Industrial-Technical Teacher Education 110 credits

- 59 credit hours in technical courses, as follows:
 - (1) 45 credits for occupational competency *or*
 - (2) 45 credits in selected courses in area of specialization, *or*
 - (3) Combination of (1) and (2) to total minimum 45 credits, *plus*
 - (4) 14 credit hours in area of specialization *or* courses that are related to *or* complement the area of specialization (these courses will be selected under advisement of the major adviser to provide the student with maximum depth in his particular occupational area and may well be of a scientific or technical nature)
- Tech 392, 393, 394, 442, 490, 490a, 495, 498, plus 9 credit hours selected by advisement from Tech 215, 391, 488, 492, 494, 496, to total 44 credits in professional vocational education
- 7 credits in psychology: Psych 351, 353

GRADUATE STUDY

For a concentration in industrial arts leading to the degree of Master of Education, see *Graduate Bulletin*.

COURSES IN TECHNOLOGY

Courses in technology cover a wide range of subject areas. For ready reference, courses may be classified as follows:

Graphic Communications Technology—160, 210, 211, 212, 240, 260, 265, 310, 312, 313, 340, 341, 342, 360, 362, 363, 413, 419, 440, 441, 443, 447, 448, 449, 460, 469, 540, 541, 542, 543, 544

Materials and Manufacturing Technology—222, 223, 224, 225, 231, 303, 320, 321, 322, 323, 324, 325, 326, 327, 328, 331, 333, 335, 417a,c, 420, 422, 425, 428, 429, 433, 434, 439

Mechanical and Electrical Technology—270, 280, 281, 370, 371, 372, 375, 379, 381, 382, 477, 478, 479, 484, 489

Industrial Design—214, 215, 311, 315, 316, 317, 318, 416, 418

Driver Education—480, 481, 482, 483, 485, 487

General and Professional Courses—101, 201, 301, 302, 304, 350, 391, 394, 400, 402, 417b, 450, 459, 491, 492, 493, 494, 495, 496, 497k, 497m, 499, 590, 591, 592, 594, 595

101 ORIENTATION TO INDUSTRIAL ARTS AND TECHNOLOGY (2)

The areas of technology, programs of studies, and career opportunities. Recommended for freshmen and new transfer students who seek information on the area. S/U grading only for this course.

120 INDUSTRIAL MATERIALS (4)

Materials of industrial technology; metals, ceramics, polymerics, cements and glasses.

160 INTRODUCTION TO PHOTOGRAPHY (2)

Investigation of the elements comprising a photograph. Basic principles, materials and processes. An introduction to the language of photographic imagery, both aesthetic and technical. A study of the history of photography through the work of the great photographers. Investigation of the application of photography in the major disciplines, and trends and styles of photographic expression to the cultural developments of the 19th and 20th centuries. A non-lab course. Strongly recommended for those intending to complete the photo sequence.

210 INDUSTRIAL GRAPHICS (5)

Introduction to basic concepts of technical communication in industry through freehand sketching and instrument drawing of three-dimensional objects. Introduction to team dynamics through creative problem solving.

210b INDUSTRIAL GRAPHICS (3)

Prerequisite: enrollment limited to VICOED majors. Introduction to basic concepts of technical communication in industry through freehand sketching and instrument drawing of three-dimensional objects. Introduction to team dynamics through creative problem solving.

211 INDUSTRIAL GRAPHICS (4)

Prerequisite: Tech 210 or equivalent. Preparation of working and assembly drawings of machine parts with emphasis on individual creative problem solving through tolerance and positional dimensioning, auxiliary views, sections and use of product catalogs to select and size components.

214 FUNDAMENTALS OF PRODUCT DESIGN (5)

Basic design concepts and aesthetics of form, color, and space involved in the design process. Considered preliminary to courses in design with graphic media, wood, plastics, metals, and industrial design. Projects and study include applications of two- and three-dimensional design in a variety of media and research into historical design expression. Considered preliminary.

215 EVOLUTION IN INDUSTRIAL DESIGN (3)

Interrelationship with the arts, sciences, and society; designers, their philosophies and resultant impact on culture.

221 WELDING (3)

Basic concepts in welding to include shielded metal arc welding, oxy-acetylene welding, weld testing, welding symbols, heat treating and soldering.

222 PATTERN MAKING AND FOUNDRY (3)

Prerequisite: Tech 231. Tools, materials and techniques used to produce foundry patterns and principles and practices employed in the contemporary metal-casting industry.

Technology

- 223 **MACHINE METAL PROCESSES (5)**
Prerequisite: Tech 210 recommended. Basic concepts and skills in machine metal processes; shaping metal by machine tools, chipless machining, automation of machine tools and cold forming processes.
- 224 **INTRODUCTION TO STRENGTH OF MATERIALS (4)**
Elementary statics, stress and strain in members; riveted and bolted joints; statically determined beams; and torsion in shafts.
- 231 **GENERAL WOODS (4)**
Prerequisite: Tech 210 recommended. Introduction to basic industrial tools and machines used in processing wood materials. Custom design and fabrication of wood products. Technical information related to processes.
- 237 **FOREIGN STUDY (3)**
Basic darkroom, camera, and visualization procedures in black and white photography. Based on both lecture and practical application, the course stresses the use of the camera as a learning tool. Production of the portfolio should emphasize the student's personal experience and complement other course work in that particular foreign setting. This course may not substitute for Tech 260 as a prerequisite, or for the fulfillment of a program requirement unless approved by the WWSC instructor. Presently offered only on Guadalajara campus. Contact Foreign Studies office, Miller Hall 353.
- 240 **VISUAL COMMUNICATION (5)**
Survey of the visual communications field including visual communications theory, information design, reproduction, presentation, and management; involves the print and non-print media.
- 260 **GENERAL PHOTOGRAPHY (4)**
Fundamentals of film developing, enlarging, print finishing. Basic elements of black and white composition and visualization. Lab fee, \$5.
- 270 **BASIC ELECTRICITY (4)**
Principles and concepts of electricity; laboratory experiences with electrical components, circuits and measuring equipment.
- 280 **POWER MECHANICS (5)**
Design principles of major power sources; techniques of torque and power measurement. Chassis dynamometer testing and port air flow testing.
- 281 **POWER TRANSMISSION (5)**
Principles and practices of mechanical and fluid transmission of power. Theory and practice of over-running clutches and rolling drag reduction testing.
- 301 **CRAFTS (3)**
Design and construction in a variety of craft materials.
- 302 **MAINTENANCE OF INDUSTRIAL EQUIPMENT (3)**
Prerequisites: Tech 223, 231, 270. This course will include a survey of industrial maintenance procedures as well as dealing with specific lab problems encountered by instructors in industrial education subjects. Major units of study include industrial maintenance systems or procedures, maintenance of specific stationary machines and hand tools in the following areas: industrial plastics, industrial wood processing, machine metals, automotive maintenance systems. Offered summer only.
- 303 **FINISH PRINCIPLES AND PRACTICE (3)**
Introduction to modern finishing materials and processes.
- 309 **ENGINEERING DESCRIPTIVE GEOMETRY (4)**
Prerequisite: Tech 210 and/or 211. Practical applications of concepts and principles of engineering descriptive geometry. Through graphical analysis, three-dimensional analysis of points, lines and planes by auxiliary views and revolution. Engineering applications of plan-profiles, slope, bearing, grade, strike and dip, vector statics and skew line clearance relationships. Application of creative problem solving through term project.
- 310 **TECHNICAL ILLUSTRATION (3)**
Prerequisite: Tech 210 or equivalent. Preparation of three-dimensional pictorial drawings using isometric drawing, axonometric projection and perspective drawing with application of time-saving techniques such as: pre-printed grids, ellipse templates, and other specialized equipment. Introduction to rendering techniques with pencil, ink, pressure sensitives, airbrush and other media.
- 311 **APPLIED PERSPECTIVE AND RENDERING (4)**
Prerequisite: Tech 210; Tech 214 and 310 recommended. The techniques and skills in rendering of buildings, interiors, and products in perspective. Projects include a comprehensive study of perspective systems and shadow construction in various media. Intended to develop the student's ability to sketch informally and present formally ideas pertaining to the expression of architectural subjects, interiors, and products of industrial design.
- 312 **ADVANCED DRAFTING (3)**
Prerequisite: Tech 211. Problems in machine drawing, linkage analysis, intersections and developments, and successive auxiliary view construction. Visitation to observe current drafting practices in industry.
- 313 **ARCHITECTURAL DESIGN AND HOUSE PLANNING (3)**
Prerequisite: Tech 210. Historical development; considerations of design; analysis of needs; utilization of sites, preparation of plans.
- 315 **INDUSTRIAL DESIGN PROCESSES (5)**
Prerequisite: Tech 210. Design as a process of problem solving; problem recognition, definition resolution and presentation; analysis of market and motivational research techniques.
- 316 **DIMENSIONAL ANALYSIS IN INDUSTRIAL DESIGN (5)**
Prerequisite: Tech 315. Application of multi-view projections, pictorials, mock-ups and prototypes to the resolution of a design problem.
- 317 **PRODUCT SYNTHESIS IN INDUSTRIAL DESIGN (5)**
Prerequisite: Tech 316. Preparation of a portfolio of research sketches, working drawings, and renderings in the creation of a mock-up or prototype of an original or modified product.
- 320 **ADVANCED METALWORKING (3)**
Prerequisites: Tech 222 and 223. Advanced skill and developments of metalworking processes and machines. Includes machine tool skills, tool room operation and fabrication of jigs and fixtures.
- 323 **MECHANICS OF MATERIALS (4)**
Prereq: Math 103 or equivalent and upper-division standing. Internal response of engineering members to forces; principal stresses and strains; stress concentrations; photoelasticity and strain gauge techniques.
- 325 **PHYSICAL METALLURGY (4)**
Prerequisite: upper-division standing. Structure of metals and alloys; equilibrium diagrams; nucleation and growth; recovery and recrystallization; heat treatments; and relation between properties and microstructure.

- 326 FERROUS METALLURGY (4)
Prerequisite: Tech 325 or equivalent. The metal iron, its alloys and heat treatments.
- 328 METALLOGRAPHY (1)
Prerequisites: Tech 325; permission of instructor. Microscopic and related techniques applied to metal specimens.
- 331 ADVANCED WOODS (4)
Prerequisite: Tech 231. Skill and development in the more complex woodworking processes with related information on the woodworking industry.
- 333 PLASTICS (5)
Prerequisite: general education chemistry; Tech 231 recommended. Polymer science and analysis of basic plastics materials; experience in product design, tooling, and processing of thermoplastic and thermosetting materials.
- 335 TOOLING FOR PLASTICS PROCESSING (3)
Prerequisite: Tech 333. Design and construction of various types of production molds that are used for processing plastics in final shape. Product design in relationship to molding techniques and various techniques and materials used to construct the molds will be the major units of study.
- 340 GENERAL GRAPHIC ARTS I (3)
Prerequisite: Tech 240. Graphic arts technology as related to reproduction of graphic design techniques.
- 341 GENERAL GRAPHIC ARTS II (5)
Prerequisite: Tech 340. Techniques, processes, and products of the graphic arts industry; designing, reproducing, presenting, and managing graphic materials.
- 342 T/V PRODUCTION I (3)
Prerequisites: Speech 340 and written permission of the Director of VICOED. Theory and technique of basic television production. Laboratory practice utilizing instructional media facilities. Also offered as Speech 342.
- 344 FILM ANIMATION (3)
Prerequisites: Tech 240, 362 and permission of instructor. The theory and application of animation techniques in Super 8mm film or 16mm film. (Offered alternate summers only.)
- 350 INDUSTRIAL ARTS FOR THE ELEMENTARY TEACHER (3)
An activity approach to the study of technology—its tools, materials, products, processes and occupations and integration with the areas of the elementary school curriculum.
- 360 ADVANCED PHOTOGRAPHY (3)
Prerequisite: Tech 260 or 362. Stresses photographic visualization and the development of personal style through concentrated studies of light and design, filters, the zone system, view camera, specialized materials and processes, archival processing, and historical and contemporary trends in American photography.
- 362 VISUAL COMMUNICATION PHOTOGRAPHY (4)
Prerequisites: Tech 240 and VICOED major. Function of photography in visual communication; application of theory and techniques to projects.
- 363 COLOR PHOTOGRAPHY (3)
Prerequisite: Tech 260 or 362. Fundamentals of color theory; techniques of producing color transparencies and prints.
- 370 BASIC ELECTRONIC CIRCUITS (4)
Prerequisite: Tech 270. Theory and application of power supplies, amplifiers, oscillators and digital circuits.
- 371 SEMI-CONDUCTORS (4)
Prerequisite: Tech 370. Characteristics of semiconductor devices and circuits.
- 372 INDUSTRIAL ELECTRONICS (4)
Prerequisite: Tech 371. Theory and application of circuits using semi-conductor devices such as: diacs, triacs, silicon control rectifiers, unijunction transistors, field effect transistors and integrated circuits.
- 375 INDUSTRIAL ELECTRICITY (4)
Prerequisite: Tech 270. Study of single- and three-phase motors, motor controls, generators and transformers. Measurement of torque, horsepower, power factor and efficiency.
- 379 VISUAL COMMUNICATION ELECTRONICS (3)
Prerequisite: Tech 341. Principles and applications of instrumentation, electronic systems and computer graphics technology in the communication industry.
- 380 ADVANCED POWER MECHANICS (3)
Prerequisite: Tech 280. Efficiency determinants, power measurement, development of concepts introduced in Tech 280.
- 381 ADVANCED POWER TRANSMISSION (3)
Prerequisite: Tech 281. Practical application of hydraulic and fluidic theory; development of concepts introduced in Tech 281.
- 382 AUTOMOTIVE ELECTRICITY (2)
Prerequisite: Tech 270 or 280. Basic principles of electrical components and systems of the automobile and other engines.
- 391 MAN AND TECHNOLOGY (3)
Development, scope, and impact of technology upon man.
- 392 INDUSTRIAL AND OCCUPATIONAL COURSE ORGANIZATION (3)
This course is designed to provide the student with an opportunity to apply the principles and practices involved in planning and organizing of courses of study for industrial and occupational instructional purposes.
- 393 TEACHING OF INDUSTRIAL EDUCATION (3)
Prerequisite: professional involvement in trade, industrial, technical or health occupations vocational education or upper-division standing. This course is designed to provide the student with the basic principles and techniques for effective instruction in the trade, industrial, technical and health occupations vocational education areas. This course is also designed to meet the vocational teacher education certificate requirements as prescribed in the Washington State Plan for Vocational Education.
- 394 OCCUPATIONAL ANALYSIS (3)
Prerequisite: professional involvement in trade, industrial, technical or health occupations vocational education or upper-division standing. This course is designed to provide the student with the basic principles and techniques for performing analysis operations to develop course content for trade, industrial, technical and health occupations vocational education areas of instruction. This course is designed to meet vocational teacher education certification requirements as described in the Washington State Plan for Vocational Education.
- 400 SPECIAL PROBLEMS (1-5)
Prerequisite: permission of instructor; open only to technology majors. Specialized advanced study through individual instruction.

Technology

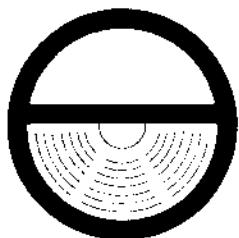
- 402 COOPERATIVE WORK/STUDY (1-15)
Prerequisites: junior standing; conference course permit; approval of adviser. Supervised study of technical problems associated with production and/or management in business and industry. Credit varies according to individual employment circumstances, the degree requirements of the applicant and the extent to which employment is related to major.
- 413 ARCHITECTURAL PROBLEMS (3)
Prerequisite: Tech 313. Advanced residential planning, cost estimating; FIAA standards, building codes; individual and group research.
- 416 STRUCTURAL - AESTHETIC FACTORS IN INDUSTRIAL DESIGN (5)
Prerequisite: Tech 316. Tectonic principles applied to consumer products, problems related to functional and emotional factors of environmental design involving space, structure, furniture and lighting.
- 417 SPECIAL INTEREST SEMINARS
- 417a Woodcarving (3)
Prerequisite: art or industrial arts teaching experience.
- 417c Wood Sculpture and Design (3)
Prerequisite: Tech 417a.
- 417e Instructional Resources in Plastics (1-3)
Includes understanding of plastics materials and processes. Development of instructional aids, tooling devices, curricular materials and project ideas for secondary school activities. Offered during summer session or through Continuing Education.
- 417f Special Interest Seminar - Industrial Careers (3)
To provide industrial education teachers with current information on industrial careers, i.e., positions, salaries, requirements, working conditions and other pertinent career information that can be incorporated into industrial education programs. (Offered through Continuing Education.)
- 417m Visual Communications (3)
Prerequisite: a basic course in graphic arts, art or photography.
- 417n Individualizing Instruction for Occupational Versatility (3)
Prerequisite: teaching experience.
- 417p Student Management Systems (3)
A class designed for teachers wishing to incorporate the student management and direction system of the "Occupational Versatility" program.
- 417r Photography for Teachers (1-3)
This course is designed for school teachers who want to use photographic techniques as a part of their teaching methodology. (Normally offered summers.)
- 418 DESIGN CENTER RESEARCH PROJECT (1-3)
Prerequisite: Tech 214 or Home Econ 101. Directed research in design under the auspices of the Western Design Center. (Also offered as Home Econ 418.)
- 419 DIRECTED RESEARCH IN DRAFTING/DESIGN (1-3)
Prerequisite: Tech 211. Research problem in drafting or design conducted under supervision.
- 420 MANUFACTURING PROCESSES (3)
Prerequisite: upper-division standing. Metal fabrication theory, property of materials as related to manufacturing processes, economic aspects and automation.
- 421 COMPUTER INTEGRATED MANUFACTURING (3)
Prerequisite: upper-division standing. Computer control of manufacturing processes; computer-aided design; manual and computer-aided numerical control part programming, with emphasis on APT.
- 422 MANUFACTURING MANAGEMENT (4)
Prerequisite: upper-division standing. Production control; methods analysis; industrial engineering; linear programming and quality control.
- 428 DIRECTED RESEARCH IN MATERIAL SCIENCE (1-3)
Prerequisite: permission of instructor. Research under supervision in an area of material science.
- 429 DIRECTED RESEARCH IN METALS (1-3)
Prerequisites: Tech 223, 320. Selection, development, and research, under supervision, within one of the areas of metals technology.
- 433 ADVANCED PLASTICS (3)
Prerequisite: Tech 333. Concepts of polymer science; study of structure, properties and applications of plastics materials; design and development of plastics tooling; analysis and experiences in thermoplastics molding and forming processes.
- 434 REINFORCED PLASTICS (5)
Prerequisite: Tech 333. Resin and reinforcement systems; material testing and strength analysis; mold design and development; theory and involvement in reinforced plastics production processes.
- 439 DIRECTED RESEARCH IN WOODS (1-3)
Prerequisites: Tech 231, 331. Selection, development, and research, under supervision, within one of the areas of wood technology.
- 440 GRAPHIC DESIGN (5)
Prerequisites: Tech 341 and 362. Principles and application of effective visual communication, design, and reproduction.
- 441 VISUAL COMMUNICATION SERVICES MANAGEMENT (5)
Prerequisite: Tech 341. Estimating and pricing, simplified cost accounting; organization and administration of visual communication services; production, quality and color control instruments and techniques.
- 442 INSTRUCTIONAL MATERIALS (5)
Prerequisite: senior or graduate status. Design and production of instructional materials; single concept motion pictures, slide presentations, video tapes and printed materials for course outlines are developed. (Offered alternate summers.)
- 443 T/V PRODUCTION II (3)
Prerequisites: Tech 240, Tech 342 or Speech 342, and written permission of the Director of VICOED. Advanced theory and technique of television production. Laboratory experiences utilizing instructional media facilities. Also listed as Speech 443.
- 444 COMPUTER PHOTO COMPOSITION (3)
Prerequisite: Tech 240, 340, 341 and Computer Science 110 and permission of instructor. The theory and practical applications of computer-operated photocomposition equipment.
- 447 PUBLICATIONS PRODUCTION (3)
Prerequisite: concurrent enrollment in Tech 448. Experiences in design, layout, and production of publications through printed media, film, television, or other means.
- 448 VISUAL COMMUNICATION (5)
Prerequisite: completion of the VICOED sequence. Synthesis of basic concepts, models, and theories, the perceptual, social, cultural, and technological determinants of visual form, style and content.
- 449 DIRECTED RESEARCH IN GRAPHIC ARTS (1-3)
Prerequisites: Tech 240, 340. Selected problems in graphic arts.

- 450 CAREER DEVELOPMENT ACTIVITIES (1-3)
Prerequisite: teaching experience or senior status in teacher education. An activity approach to the relationships between occupations, the process of occupational choice, and aspects of the elementary school curriculum. Examples and applications for incorporating career concepts into the regular curriculum. Skill development in the use of constructive classroom activities.
- 459 DIRECTED RESEARCH IN INDUSTRIAL ARTS FOR THE ELEMENTARY SCHOOL (1-3)
Prerequisite: Tech 350. Developing industrial arts content with emphasis on the relationship between industrial arts and the elementary school curriculum.
- 460 ADVANCED SEMINAR IN PHOTOGRAPHY (3)
Prerequisite: Tech 360 or 363. Application of photographic theory and techniques to selected problems.
- 469 DIRECTED RESEARCH IN PHOTOGRAPHY (1-3)
Prerequisite: Tech 260. Research problems in photography chosen and conducted under supervision.
- 473 DIGITAL ELECTRONICS (4)
Prerequisite: Tech 270. Digital integrated circuit devices, applications of digital circuits, construction and testing of digital circuits.
- 477 THEORY AND OPERATION OF ELECTRONIC TEST EQUIPMENT (4)
Prerequisite: Tech 371. Theory and practice in the operation of electronic test equipment common to industrial arts electronic programs.
- 478 PRACTICAL RADIO AND TELEVISION (4)
Prerequisite: Tech 371. Theory of radio and television transmitters and receivers.
- 479 DIRECTED RESEARCH IN ELECTRICITY (1-3)
Prerequisite: Tech 371. Advanced study in problems chosen and conducted under supervision.
- DRIVER EDUCATION: Tech 480, 481, 482, and either 485 or 487 (total of 12 credits) are required for a certificate to teach driver education in a state approved course.*
- 480 SAFETY EDUCATION (3)
The cause, incidence, and effect of home, school, recreational and vocational accidents; education programs and practices to reduce accidents. (Normally offered summers.)
- 481* BASIC DRIVER AND TRAFFIC SAFETY EDUCATION (3)
Knowledge, attitudes and skills needed to teach driver education in the secondary school; classroom instruction and in-the-car teaching experience. (Normally offered summers.)
- 482* ADVANCED DRIVER AND TRAFFIC SAFETY EDUCATION (3)
Driver and traffic safety and methods of teaching in the secondary school; classroom and in-the-car teaching experience. (Normally offered summers.)
- 483* DIRECTED RESEARCH IN DRIVER AND TRAFFIC SAFETY EDUCATION (1-3)
A special problem in driver and traffic safety. (Normally offered summers.)
- 484 VEHICLE DESIGN (3)
Prerequisite: Tech 280, 380 or permission of instructor. Suspension design; chassis design, spring rates, tire design parameters; automobile aerodynamics; brake system. (Offered summer only.)
- 485* DRIVING SIMULATORS AND MULTIPLE-CAR DRIVING RANGES (3)
Prerequisite: Tech 481 and 482 or concurrent enrollment. An examination of the aims, objectives and role of laboratory programs in driver and traffic safety education. Directed experiences in both the simulator and multiple-car driving range methods of laboratory instruction. This course or Tech 487 is required for certification of high school drivers education teachers. (Offered alternate summers.)
- 487* ORGANIZATION, ADMINISTRATION AND SUPERVISION OF TRAFFIC SAFETY EDUCATION PROGRAMS (3)
Prerequisite: Tech 481 and 482 or concurrent enrollment. Organizational, administrative and supervisory aspects of traffic safety education programs in the public schools. Includes the relationships of these programs to the total school program, related professional organizations and current issues. Methods and materials of classroom instruction and curriculum development are included. (Offered alternate summers.)
- 488 SAFETY PRINCIPLES AND PRACTICES FOR INDUSTRIAL EDUCATION TEACHERS (3)
This is a basic course in safety practices for industrial education teachers in grades 1-12 and for vocational teachers who must meet state certification requirements.
- 489 DIRECTED RESEARCH IN POWER MECHANICS (1-3)
Prerequisites: Tech 280, 381. Advanced study in problems chosen and conducted under supervision.
- 490 PRACTICUM IN SUPERVISED TEACHING OF INDUSTRIAL AND TECHNICAL EDUCATION PROGRAMS (16)
Prerequisite: open to majors in industrial and technical education during their senior year with departmental approval upon completion of Tech 393, 394, 392 and 495. Supervised experience providing opportunity to develop and demonstrate teaching competency at the secondary and post-secondary level in the area of industrial and technical education.
- 490a SEMINAR IN SUPERVISED VOCATIONAL TEACHING (1)
Prerequisite: concurrent enrollment in Tech 490, Practicum in Supervised Teaching of Industrial and Technical Education Programs.
- 491 HISTORY AND PHILOSOPHY OF INDUSTRIAL ARTS (2)
Development of programs in industrial arts and industrial-vocational education; evolving philosophies, issues and objectives.
- 492 FACILITIES FOR INDUSTRIAL ARTS (3)
Prerequisite: senior standing in teacher education. Planning, development and utilization of industrial arts facilities.
- 493 THE TEACHING OF INDUSTRIAL ARTS (4)
Prerequisite: admission to teacher education. Derivation and organization of content for industrial arts; principles, procedures, and problems in the teaching of laboratory courses; prerequisite to directed teaching in industrial arts.
- 494 CAREER EDUCATION CONCEPTS (1-3)
Prerequisite: teaching experience or senior status in teacher education. History, philosophy, purpose, and status of career education. Applications and examples drawn from various school subjects at all school levels. Specific instruction in the installation of a career education dimension to the total school curriculum.

*Not applicable to undergraduate or graduate programs in technology.

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- 495 **EVALUATION IN INDUSTRIAL AND OCCUPATIONAL EDUCATION (3)**
This course concerns the methods of evaluation such as the preparation of measuring devices, methods of assessing technical competency, interpretation of standardized test results, statistical analyses of test data and the improvement of instruction. This course is required by the state for vocational certification of trade and industrial teachers. (Offered through Continuing Education.)
- 496 **COMMUNITY AND INDUSTRIAL RESOURCES (3)**
A study of those resources available in the community and how they can be used to enhance the educational experience of students engaged in formal schooling.
- 497e **VALIDATED ELEMENTARY ACTIVITY PROGRAM SERIES (3)**
Prerequisite: elementary teaching experience and designation by school district's elementary supervisor. (Continuing Education)
- 497f **WORKSHOP TO IMPLEMENT THE INDUSTRIAL ARTS SAFETY GUIDE (1-3)**
Prerequisite: teaching experience in industrial arts courses. (Continuing Education)
- 497g **SPECIAL INTEREST WORKSHOP: CAREER EDUCATION CURRICULUM DEVELOPMENT (1-5)**
Prerequisite: Tech 494 and permission of instructor. (Continuing Education)
- 497r **SPECIAL INTEREST WORKSHOP: CAREER EDUCATION—ELEMENTARY HAND TOOL PROGRAMMING (1-3)**
Prerequisite: Tech 494 or 450 or permission. Development of elementary hand tool activities, procuring and using hand tools. Integrating activities as part of the elementary curriculum. (Continuing Education)
- 497s **SPECIAL INTEREST WORKSHOP: CAREER EDUCATION COMPETENCIES (1-5)**
Prerequisite: teaching experience and permission of instructor. This course will provide career education/career guidance competencies enabling teacher and administrators to assist students in developing self-awareness, explore career opportunities, and accurately review and assess their skills and aptitudes. (Continuing Education)
- 497t **CAREER EDUCATION WORKSHOP: LEISURE, RETIREMENT AND A NEW LIFESTYLE (1)**
Preparation for retirement: a major shift in career and lifestyle. S/U grading.
- 498 **STUDENT LEADERSHIP DEVELOPMENT (3)**
Prerequisite: professional involvement in trade, industrial, technical or health occupations vocational education or upper-division standing. This course is designed to provide the student with the basic principles and techniques for effecting student leadership development in their respective vocational education programs. Designed to meet vocational teacher education certification requirements as described in the Washington State Plan for Vocational Education.
- 499 **SENIOR PROJECT (1)**
Prerequisite: junior or senior standing; technology major. The demonstration of competence in the major through a culminating project which presents a written, pictorial, and photographic summary of work done in the major or of a comprehensive senior-level project.
- 500 **SPECIAL PROBLEMS (1-5)**
Individual problems under supervision.
- 540 **VISUAL COMMUNICATIONS TECHNOLOGY (3)**
Prerequisite: undergraduate concentration in the visual communications field. The technological changes in the visual communications industry and the responses. (Offered alternate summers.)
- 544 **SEMINAR: CURRENT VISUAL COMMUNICATIONS TOPICS (3)**
Prerequisite: undergraduate concentration in the visual communications fields. Research and discussion concerning pertinent problems in the visual communications industry. (Offered alternate summers.)
- 545 **ADVANCED PHOTOCOMPOSITION AND ITS APPLICATIONS (5)**
Prerequisite: Tech 444. Current problems and advances in the typesetting industry with advanced applications of computer-operated photocomposition. (Normally offered summers.)
- 550 **FOUNDATIONS OF VOCATIONAL EDUCATION (3)**
An examination of the historical and philosophical foundations of vocational education. Major legislation, social and economic factors which have influenced the development of vocational education will be considered, as well as the scope and purpose of vocational education as it relates to education in general. (Normally offered summers.)
- 580 **DEVELOPMENTS IN AUTOMOTIVE EMISSION CONTROL SYSTEMS (3)**
Prerequisites: Tech 280 and 380 or permission of instructor. Experimental research in emission control on live laboratory engines. Topics center around temperature control on NO_x, new methods of optimizing stoichiometric combustion, and thermal and catalytic exhaust treatment.
- 590 **CURRICULUM PROBLEMS IN INDUSTRIAL EDUCATION (3)**
Derivation and organization of content and experiences for industrial arts courses.
- 591 **INDUSTRIAL TECHNOLOGY (3)**
Development of trade, technical, and industrial technology; forces, concepts, issues and trends.
- 592 **CURRICULUM DEVELOPMENT IN INDUSTRIAL ARTS (3 ea)**
Prerequisite: public school teaching experience in the area of concern. Development of content, laboratory experiments, projects and teaching aids useful in up-dating specific industrial arts curriculum areas to include recent and current industrial developments in that curriculum area.
- 592a Electronics
 - 592b Industrial Graphics
 - 592c Metals
 - 592d Plastics
 - 592e Power Mechanics
 - 592f Woods
 - 592g VICOED
 - 592h Photography
 - 592j Man and Technology
 - 592k Construction
 - 592m Manufacturing
- 594 **RESEARCH IN INDUSTRIAL ARTS (2)**
Readings and discussion in current research topics in industrial arts.
- 595 **GRADUATE SEMINAR (2)**
Contemporary issues in industrial arts.



THEATRE/DANCE

College of Fine and Performing Arts

Theatre/Dance at Western offers an academic major and programs for the student in dramatic arts and in dance, as well as specific programs for the student preparing for teaching or for a career in the professional world of theatre and dance.

Beginning with the Introduction to Theatre course, appropriate sequences are available in dance and choreography, acting, directing, dramatic literature, creative dramatics and children's theatre, and theatrical production (e.g. costuming, lighting, make-up). Western Theatre also offers a wide variety of on-stage experiences. Each quarter at least two major productions are presented, ranging from classic Greek drama to recent Broadway plays and dance concerts. In addition, some 30 to 40 student-directed productions are presented every year in connection with directing and advanced dance and choreography classes and the graduate production thesis program.

Children's theatre has an active program, both in classroom and production. Creative dramatics and developmental drama classes are offered each quarter. During winter quarter, Western's Youth Theatre tours to between 35,000 and 40,000 grade school and high school students across the state.

The study-abroad program, a 10-week session conducted in London, offers students a quarter of credit while living with English families and seeing the best of English theatre. A week at the Royal Shakespearean Company at Stratford-Upon-Avon highlights the program.

The dance program offers courses to general students as well as an undergraduate major which leads to a Bachelor of Arts degree. Sequence courses are offered in dance technique (jazz, ballet, modern), choreography, music for dance, labanotation, and history and philosophy of dance. In addition to the dance courses, the major includes related area courses in theatre and art.

Theatre/Dance

Each quarter a formal dance concert is presented in the college auditorium by Western's concert dance ensemble. There are also frequent opportunities for performing and choreographing in various student productions.

Western Theatre also includes a full season of Summer Stock. During the nine-week session, the student may sign for a series of individual classes or elect to take Theatre/Dance 462, Summer Stock Workshop, a block of 15 credit hours. During the season nine plays are presented—six adult offerings, two children's theatre productions and a reader's theatre performance.

The Theatre/Dance Program, formerly in the Department of Speech, has been incorporated into the new College of Fine and Performing Arts.

Majors and minors in the Department of Speech remain substantially the same. It is recommended, however, that current and new students check with both the Department of Speech and the Theatre/Dance Department advisers before registering for any of these programs.

THEATRE/DANCE FACILITIES

Theatre/Dance students at Western currently "learn by doing" in a variety of special classrooms including a 1,200-seat proscenium theatre, a 250-seat modified-thrust proscenium theatre, a well-equipped dance studio and related support facilities including costume, make-up, scene and paint shops. In the fall of 1978, two new experimental theatres plus support facilities will also be available for student use.

For information and guidance, contact the chairman of the department, Mr. Dennis Catrell, College Hall 212, (206) 676-3878. Graduate students should contact the chairman or the director of graduate study, Dr. Daniel Lerner, College Hall 204, (206) 676-3867.

THEATRE/DANCE FACULTY

- DENNIS E. CATRELL (1966) Chairman.
Associate Professor. BA, University of Michigan; MA, Northern Illinois University.
- WILLIAM A. GREGORY (1968) Professor and Dean of the College of Fine and Performing Arts. BS, Central Michigan University; MA, Michigan State University; PhD, University of Minnesota.
- MONICA C. GUTCHOW (1960) Assistant Professor. BS, University of Oregon; MFA, University of North Carolina Women's College.
- DANIEL M. LARNER (1968) Associate Professor. AB, Harvard College; MS, PhD, University of Wisconsin, Madison.
- BYRON E. SIGLER (1963) Associate Professor. BA, MFA, Tulane University; PhD, Stanford University.
- DOUGLAS R. VANDER YACHT (1970) Associate Professor. BA, Western Washington State College; MA, Purdue University; PhD, Ohio State University.

Associates in the Arts

- Donald A. Adams (1964) Associate in Theatre Arts.
BA, MA, University of Washington.
- Roger Germain (1970) Associate in Theatre Arts.
BA, Western Washington State College.

BACHELOR OF ARTS

Major—Theatre 85 credits

- Speech 203, 319, 373
- Theatre/Dance 101, 135, 211, 212, 213, 215, 324, 350, 360, 361, 370, 380, 382, 411, 425, 426, 427, 461, 470
- Choose one of the following: Theatre/Dance 428, 428b, 428c
- Music 130
- PE 134
- Recommended electives under area advisement: Music 223; Tech 210, 310; Theatre/Dance 235, 236 cr 237

Minor—Theatre 30 credits

- Theatre/Dance 101
- Choose one of the following: Theatre/Dance 260, 261, 262
- Theatre/Dance 211, 212, 322*, 360, 370
- Plus 6 to 9 credits of literature under advisement

Major—Dance 84 credits

- Theatre/Dance 101, 231, 211, 212, 215, 235, 236, 237, 238, 239, 240, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 360, 431, 432, 433
- Art 101, Biology 348, PE 326

Proficiency in technical skill above the beginning level should be established before taking a dance major. At least two credits from Theatre/Dance 232, 233 or 239 are recommended.

A minor is recommended in one of the following areas: theatre, music, literature, art, business administration.

Minor—Dance 25 required credits

- Theatre/Dance 231
- Theatre/Dance 235, 236, 237 or 238, 239, 240
- Electives under advisement—16

GRADUATE STUDY

For concentration in theatre and dance leading to

*Or six credits of dramatic literature.

the Master of Arts degree, see the *Graduate Bulletin*, Department of Speech.

A NOTE ON COURSE NUMBERING

In each level of course work (100, 200, 300, 400 and 500), the following numbering system has been used:

Film	01-09
Technical Theatre	11-20
Literature	21-30
Dance	31-45
Children's Theatre	50-59
Acting	60-69
Directing	70-75
History	80-84
Playwriting	85-90

Theatre 101 (Introduction to Theatre) and 110 (Interdisciplinary Art) and 600-level courses are not a part of this system.

COURSES IN THEATRE AND DANCE

- 101 INTRODUCTION TO THE THEATRE (3)
An introduction to the basics of the art of the theatre through participation; experiences with improvisation, mime, script analysis, criticism, sensory awareness; also touching on the allied arts of film and television.
- 110 INTERDISCIPLINARY ART (5)
For students planning interdisciplinary art majors and those wishing to broaden both their artistic knowledge and awareness. The course is team-taught; art, drama, music and creative writing. Emphasis will be given to the interconnecting aesthetic principles of all art forms. (Also listed as Art 110, Music 110.)
- 135 MODERN DANCE FOR THE BEGINNER (2)
The study of basic principles of dance movement in terms of placement, technique, and space, time, energy concepts. Emphasis will be on creative movement experiences, and developing an appreciation of the dance as an art form. May be repeated for credit. Open to non-majors.
- 138 BASIC BALLET (2)
An introductory study of basic principles of the ballet as an intellectual, artistic and physical medium. Emphasis on basic French terminology, barre exercises, simple combination in adagio and allegro. Open to non-majors. May be repeated for credit.
- 160 ACTING WORKSHOP FOR HIGH SCHOOL STUDENTS (2)
Prerequisite: intended for, but not restricted to, students who have completed their junior year of high school. An intensive program to develop actor skills through daily physical, vocal and imagination training. Rehearsal and performance in a variety of theatre environments. Summers only.
- 211 DESIGN FOR THE STAGE (3)
Aesthetic principles common to all contributory arts of the theatre; practical problems in scenic and costume design. Grading will be S/U only.
- 212 INTRODUCTION TO STAGECRAFT AND LIGHTING (5)
Basic theory of planning, drafting, construction and rigging of scenery and lighting. Practical laboratory experiences in scenery construction; painting, handling and rigging of scenery and lighting; scene shop assignment on one production; backstage assignment on second.
- 213 STAGECRAFT LIGHTING LABORATORY (2)
Prerequisite: Th/D 212 or concurrent. Practical experience in planning, handling and rigging stage lighting and special effects; assignments on one major production.
- 215 STAGE MAKE-UP (2)
Theory and practice of applying make-up for the stage. Grading will be S/U only.
- 231 INTRODUCTION TO DANCE (3)
An overview of dance subjects and problems with emphasis on the dance as a performing art; brief historical survey; similarities and differences of dance forms, vocational opportunities, dance notation, dance therapy, dance in education.
- 232, 233, 234 DANCE THEORY AND PRODUCTION (2 ea)
Group and individual experience in dance as a theatre art; participation in the dance concert. A maximum of six hours may be earned. S/U grading.
- 235, 236, 237 INTERMEDIATE MODERN DANCE TECHNIQUES (2 ea)
Prerequisite: Th/D 135 or equivalent. A continuation of 135 with further study in technique, rhythm, dynamics, space and form for composition. Open to non-majors. Th/D 236—a continuation of 235 in further intermediate dance technique. Th/D 237—further development of materials in 236 including some composition. Each course is a prerequisite to the next.
- 238, 239, 240 BALLET FOR THE BEGINNER (2 ea)
Prerequisite: Th/D 138 or equivalent. A continuation of classical academic technique; increase in terminology and movement vocabulary; tours, jumps, combinations in adagio and allegro. A three-quarter sequence course; each course is a prerequisite to the next. Open to non-majors.
- 260, 261, 262 THEATRE THEORY AND PRODUCTION (2 ea)
Instruction and experience in all aspects of theatre organization and production. A maximum of six credits may be earned. Grading will be S/U only.
- 300 SPECIAL PROBLEMS (1-3)
Prerequisite: permission of instructor. Investigation of special problems in the field of theatre and dance.
- 301 THE ART OF FILM (3)
Film as distinguished from but related to other art forms; film aesthetics; technology. Also offered as Speech 345.
- 302 FILM GENRE (3)
Distinctive elements of melodrama, comedy, serious drama, documentary or fantasy. Also offered as Speech 346.
- 311 DRAFTING, RENDERING AND MODELS FOR THE STAGE (3)
Prerequisite: Th/D 211 and 212 or concurrent. Theory and practical experience in communicating technical and artistic information through drafting, color-rendering and model construction techniques.
- 312 ADVANCED STAGECRAFT (3)
Prerequisite: Th/D 212. Technical analysis of scripts; special effects and properties; laboratory work on productions.

Theatre/Dance

- 313 **ADVANCED STAGE LIGHTING (3)**
Prerequisite: Th/D 213. Technical and artistic study of light and color as they affect other theatre arts and contribute to artistic design; laboratory work in production.
- 315 **STAGE COSTUMING (3)**
Prerequisite: Th/D 211. Costume design and execution; specific emphasis on draping and rudimentary flat pattern techniques.
- 322 **REPRESENTATIVE PLAYS (5)**
Introductory survey of historically significant and stageworthy plays from all periods.
- 324 **SHAKESPEARE (3)**
Survey of principal plays. Also offered as English 214.
- 331 **MODERN JAZZ DANCE (2)**
Prerequisite: Th/D 135. Development and practice of skills to enhance the body as an instrument of jazz dance; emphasis on control and isolation of muscles used in jazz dancing and a discipline and refinement of such movement techniques. Repeatable for credit under advisement.
- 332 **ADVANCED MODERN JAZZ DANCE (2)**
Prerequisite: Th/D 135 and 331. A continuation of 331 with increasing difficulty in jazz dance techniques. Repeatable for credit under advisement.
- 333, 334, 335 **ADVANCED MODERN DANCE TECHNIQUES AND IMPROVISATIONS (3 ea)**
Prerequisite: Th/D 237 and four additional credit hours in dance or equivalent. 333 is the study of advanced modern dance techniques and styles; 334, a continuation of 333 in further advanced form including the area of improvisation; 335, further development of materials in 334 leading toward composition.
- 336 **RHYTHMIC ANALYSIS AND ACCOMPANIMENT (3)**
Prerequisite: Th/D 235 or equivalent. Technical aspects of music and rhythms and musical forms as applied to dance movement; the function of percussion and accompaniment for dance techniques, improvisations and accompaniment.
- 337 **DANCE COMPOSITION I—CHOREOGRAPHY (3)**
Prerequisites: Th/D 235 and 336. Fundamentals of composition emphasizing theme and development; form or design; time, force and special aspects in solo and duet studies.
- 338 **DANCE COMPOSITION II—CHOREOGRAPHY (3)**
Prerequisite: Th/D 337. Composition in pre-classic and modern forms.
- 339, 340, 341 **INTERMEDIATE BALLET TECHNIQUE (3 ea)**
Prerequisite: Th/D 240 or equivalent. Th/D 339 is the study of classical academic technique through the strict adherence to fundamental principles. Th/D 340 is a continuation of 339. Increase in terminology and movement vocabulary. Th/D 341 is a further development of the classic technique with increasing difficulty in tours, jumps, combinations in adagio and allegro. Open to non-majors.
- 342 **COSTUME FOR THE DANCE (3)**
Prerequisite: Th/D 211. An overview of the history and philosophy of costume for the dance, with an emphasis on design and construction of wardrobe for contemporary performance.
- 350 **INTRODUCTION TO CHILD DRAMA (3)**
Prerequisite: Th/D 101. Children's theatre, creative dramatics, puppetry; history, value, philosophy and literature of child drama; its uses in theatre, speech therapy, education and recreation.
- 351 **PUPPETRY (3)**
Prerequisite: 6 credits of theatre courses. Design, construction and manipulation of puppets; their use in productions for the child audience, in speech therapy, in elementary education, and as a craft for children. Grading will be S/U only.
- 360 **ACTING I (3)**
Prerequisite: Th/D 101. Fundamentals of acting; emphasis on improvisation, pantomime and basic stage movement.
- 361 **ACTING II (3)**
Prerequisite: Th/D 360. Major exercise in body and voice applied to the realistic convention of acting.
- 370 **PLAY DIRECTION I (3)**
Theory and practice of stage direction including selection of play, casting and blocking, and production of a scene for public performance.
- 380 **INTRODUCTION TO HISTORY OF THE THEATRE (5)**
Development of theatre arts from primitive origins to the present.
- 382 **HISTORIC COSTUME FOR THE STAGE (3)**
Evolution of fashion from ancient Greece through the 19th century with reference to contemporary reproduction.
- 400 **SPECIAL PROBLEMS (1-3)**
Prerequisite: permission of instructor. Investigation of special problems in the fields of speech.
- 401 **NEW DEVELOPMENTS IN THE ART OF FILM (3)**
New developments in film as an art form. The course will cover the latest experiments in new methods of expression, as they would be defined by aesthetic principles.
- 411 **SCENIC DESIGN (3)**
Design for the modern theatre; emphasis on interpretation of the play through design; practical designs and techniques.
- 421, 422, 423 **DEVELOPMENT OF THE ENGLISH DRAMA (3 ea)**
Historical and critical survey of the English drama, with emphasis upon the greater writers (exclusive of Shakespeare); medieval and Elizabethan-Jacobean: 1660-1900; 20th century. (Also offered as English 412a,b,c.)
- 424 **STUDIES IN SHAKESPEARE (3)**
Prerequisite: Th/D 324 or English 214. Seminar in selected plays. Also offered as English 414r.
- 425 **MODERN EUROPEAN DRAMA (3)**
Selected European plays and playwrights from 1850-1950.
- 426 **MODERN AMERICAN DRAMA (3)**
Selected American plays and playwrights from 1920 to 1950. Also offered as English 419b.
- 427 **CONTEMPORARY DRAMA (3)**
Selected plays and significant trends in contemporary English, European and American drama.
- 428 **MAJOR DRAMATISTS (3 ea)**
Prerequisite: six credits in theatre literature. In-depth treatment of playwrights influential in the development of drama.
428a Ibsen
428b English
428c American
428d Strindberg

Theatre/Dance

431 HISTORY AND PHILOSOPHY OF DANCE (3)

Prerequisite: Th/D 231. Historical and philosophical development of the dance from primitive man through the contemporary period.

432 DANCE PRODUCTION (2)

Prerequisites: Th/D 231, 235, and 4 credit hours in dance. Lighting, costuming and make-up; formulating, developing and presenting various types of dance programs.

433 LABANOTATION (3)

Prerequisites: Th/D 231, 235, or equivalent. An elementary course in dance notation. Reading and writing bodily movements, ballet and modern dance sequences with emphasis on directions, levels, arm and leg movements.

450 CREATIVE DRAMA (3)

Th/D 350 recommended. Principles and methods for using improvised drama as an experimental means of fostering the young person's growing awareness of himself and his world. Laboratory work with students at elementary and secondary schools.

451 CREATIVE DRAMATICS LEADERSHIP (3)

Prerequisite: Th/D 450. Advanced techniques; supervised teaching.

452 CHILDREN'S THEATRE (3)

Th/D 350 recommended. Plays for children studied for appreciation of their values for the child audience; principles of children's theatre play selection.

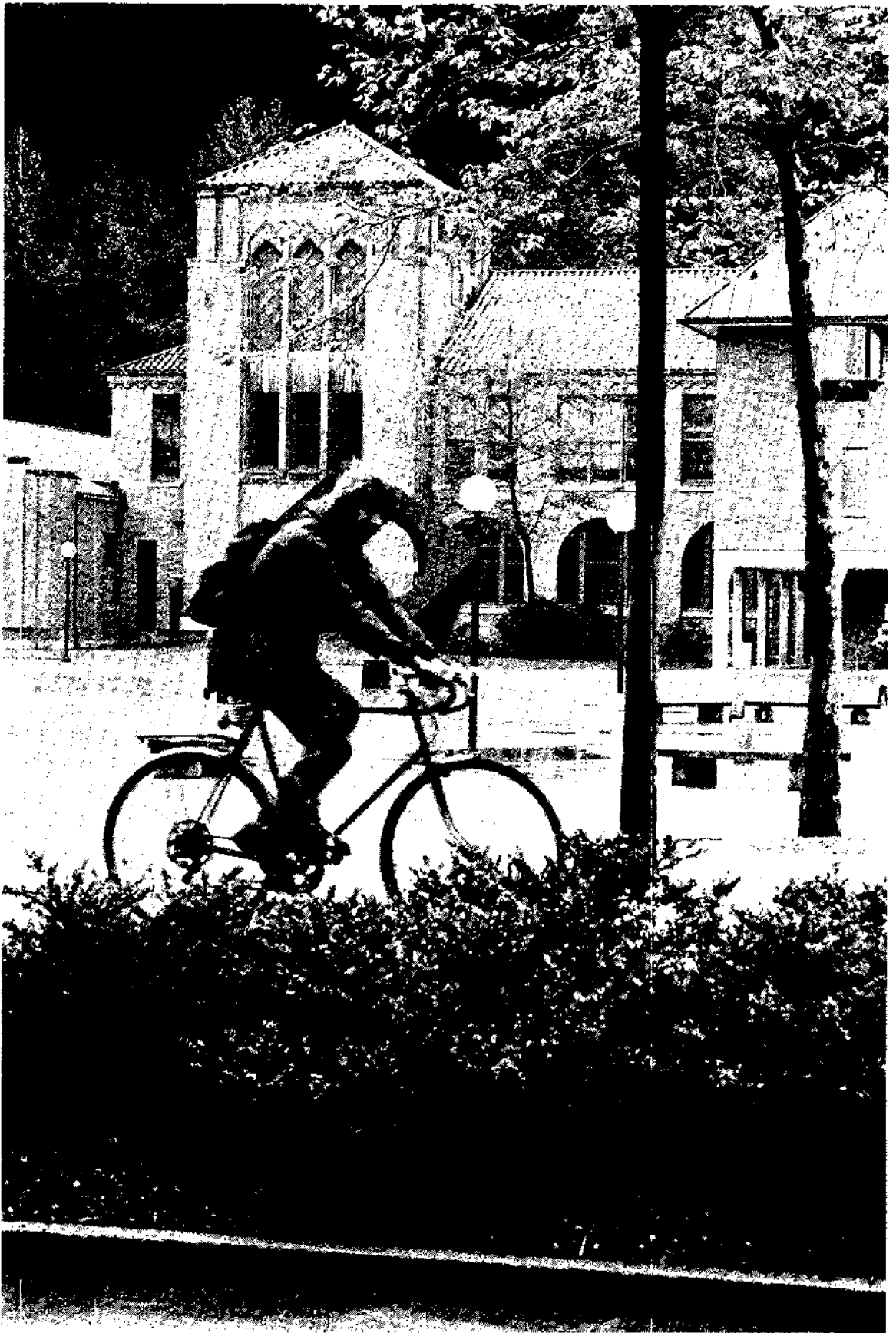


Theatre/Dance

- 453 **TOURING THEATRE (5)**
Prerequisite: permission of instructor. Theory and principles of touring technique and problems; participation in college theatre touring program. Grading will be S/U only.
- 461 **PERIOD STYLES IN ACTING (3)**
Prerequisite: Th/D 361. Problems in playing the classical repertoire; emphasis on Shakespearean tragedy and Restoration comedy.
- 462 **ADVANCED WORKSHOP IN SUMMER STOCK (15)**
Prerequisite: written permission of instructor required before registering. Offered only summer quarter. Contact Director of Theatre for details.
- 470 **PLAY DIRECTION II (3)**
Prerequisite: Th/D 370. Producing and directing a one-act play for public performance; special emphasis on working with the actor.
- 471 **PLAY DIRECTION III (5)**
Prerequisite: Th/D 470. Producing and directing a full-length play for public performance; emphasis on problems in high school, community and professional theatres.
- 472a,b **HIGH SCHOOL DRAMA DIRECTORS INSTITUTE (2, 4)**
A workshop for those who are now engaged or who intend to become engaged in the processes of play production, from script selection, production planning, casting and rehearsal to performance. This institute utilizes the resources of the concurrent acting workshop for high school students. Repeatable with permission of instructor. (Summer only.)
- 473 **PROFESSIONAL TECHNIQUES IN THEATRE ARTS (2-6)**
Theoretical instruction and correlated laboratory experience in acting, directing, stage design, costuming, business management. Grading will be S/U only.
- 480 **TWENTIETH CENTURY THEATRE (3)**
Prerequisite: Th/D 380. Significant practices, trends and figures in contemporary European and American theatres.
- 485, 486, 487 **DRAMATIC WRITING WORKSHOP (4 ea)**
Opportunity for disciplined expression in writing drama for stage, film, television, or other media. May be repeated as b and c with a limit of one course per quarter. (Also offered as English 452a,b,c.)
- 488 **REVISION AND PRODUCTION SCRIPT PREPARATION (2)**
Permission of the instructor required. Supervised revision and script preparation for production in any medium, and/or opportunity for extra work on full-length scripts. Normally taken concurrently with Th/D 485, 486 and/or 487 when student's work is or is about to be in actual production. May be repeated for a maximum of six credits.
- 500 **SPECIAL PROBLEMS (1-3)**
Prerequisite: permission of instructor. For advanced students who wish to investigate special problems.
- 501 **INTRODUCTION TO RESEARCH IN SPEECH (4)**
Interpretation and evaluation of research outcomes; purpose and design of various methods, with particular emphasis on historical and descriptive methods.
- 501 **INTRODUCTION TO RESEARCH IN THEATRE/DANCE (4)**
Interpretation and evaluation of research outcomes; purpose and design of various methods, with particular emphasis on historical and descriptive methods.
- 511 **SEMINAR IN SCENIC DESIGN AND STAGE LIGHTING (3)**
Prerequisites: Th/D 313 and 411. Historical survey of the aesthetic principles and practices in the scenic arts with special emphasis on stage design and lighting.
- 522 **SEMINAR IN DRAMATIC THEORY AND CRITICISM (4)**
Prerequisite: undergraduate major in theatre or permission of instructor. Evaluating concepts, principles and issues dominant in main periods of dramaturgical thought.
- 528 **SEMINAR IN MAJOR DRAMATISTS AND DRAMATIC PERIODS (3)**
Prerequisite: 6 credits in dramatic literature. Intensive study of life and works of playwright or period selected. (a) Ibsen; (b) Strindberg; (c) Shaw; (d) Dramatic Literature of Greece; (e) Drama of the French Neo-Classic Period.
- 550 **SEMINAR IN CHILD DRAMA (3)**
Prerequisite: Th/D 450 and 451. Critical review of theories and research findings in children's theatre and creative dramatics; individual artistic or research projects.
- 570 **PLAY ANALYSIS AND THEATRE PRODUCTION PLANNING (4)**
Theories of play analysis and theatre production organization from point of view of the play director preparing to produce a play.
- 571 **SEMINAR IN PLAY DIRECTION (4)**
Prerequisite: Th/D 471. Theories of play direction beginning with the emergence of the director in the work of the Duke of Saxe-Meiningen and including Stanislavsky, Craig, Meyerhold, Brecht, Reinhardt, Littlewood, Artaud and Grotowski.
- 585 **PLAYWRITING SEMINAR (3)**
Individual projects in dramatic writing will be submitted for group discussion. (Also listed as English 503a.)
- 586 **ADVANCED PLAYWRITING SEMINAR (3)**
Prerequisite: Th/D 585 or permission of instructor. Individual projects in playwriting. (Also listed as English 503b.)
- 690 **THESIS (6-9)**
- 691 **WRITING SEMINAR: THE RESEARCH MONOGRAPH IN THEATRE (1-3)**
Prerequisite: Th/D 501, advancement to candidacy, permission of instructor. Planning and execution of a scholarly article suitable in subject, content, method, form and style for submission to a journal in the field of theatre. Normally taken for three credits. May be repeated once under special circumstances for one to three credits.
- 695 **INTERNSHIP IN THEATRE ARTS (1-3)**
Prerequisite: Th/D 501, advancement to candidacy, and permission of instructor. Experimentation leading to the development of new methods and materials in the teaching and/or practice of theatre. May be a field project off campus, or supervised assistance in the department's curricular or co-curricular programs in theatre. An internship project report will normally be required. Normally taken for three credits. May be repeated under special circumstances for one to three credits.







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Ed.D., Teachers College, Columbia University.

CHARLES F. LAPPENBUSCH
Professor Emeritus of Physical Education. B.S., M.A.,
University of Washington.

C. W. McDONALD
Vice President Emeritus of Student Affairs. B.A., M.S.,
University of Washington.

MIRIAM S. MATHES
Associate Professor Emeritus of Library Science. B.A.,
New York College for Teachers; M.A., Teachers College,
Columbia University; B.L.S., M.L.S., School of Library
Science, Columbia University.

KEITH A. MURRAY
Professor Emeritus of History. B.A., Whitworth College;
M.A., Ph.D., University of Washington.

SYNVA K. NICOL
Associate Professor Emeritus of Education. B.A., Fresno
State College; M.A., Teachers College, Columbia Uni-
versity.

J. EVELYN ODOM
Associate Professor Emeritus of English. A.B., Winthrop
College; M.A., Teachers College, Columbia University.

VILIS PAEGLIS

Assistant Professor Emeritus of Library Science.
Mag.Phil., University of Latvia; M.A.L.S., University of Michigan.

HAROLD O. PALMER

Professor Emeritus of Business Education. B.A., College of Emporia, Kansas; Ed.M., University of Oregon; Ed.D., Oregon State University.

MIRIAM L. PECK

Associate Professor Emeritus of Art. B.A., M.A., M.F.A., University of Washington.

RUTH PLATT

Associate Professor Emeritus of Zoology. B.S., M.S., University of Washington; University of California.

HAZEL JEAN PLYMPTON

Associate Professor Emeritus of Art, Ph.B., University of Chicago; M.A., Teachers College, Columbia University; Reed College; Portland School of Art.

LORRAINE POWERS

Emeritus Dean of Women. B.A., University of Wisconsin; M.A., University of Iowa.

FRANK N. PUNCHES

Associate Professor Emeritus of Education. B.A., University of Washington; M.A., Washington State University.

BERNARD W. REGIER

Professor Emeritus of Music. B.S.M., Kansas State Teachers College; M.Mus., University of Michigan; D.M.A., University of Southern California.

CHARLES M. RICE

Associate Professor Emeritus of Industrial Arts. B.F.A., M.A., Washington State University; University of Washington; University of Oregon; Carnegie A.I.A. Art Sessions; Ed.D., Oregon State University.

J. ALAN ROSS

Professor Emeritus of Education and Psychology. B.A. in Ed., Western Washington State College; M.A., Ph.D., Yale University.

BEARNICE S. SKEEN

Professor Emeritus of Education. B.S., M.S., University of Oregon; Ed.D., Washington State University.

LEONA M. SUNDQUIST

Distinguished Service Professor Emeritus of the College. B.A., M.S., University of Washington; Teachers College, Columbia University.

RALPH H. THOMPSON

Professor Emeritus of Education. B.A., Dickinson College; M.A., University of Delaware; Ed.D., University of Illinois.

MANFRED C. VERNON

Professor Emeritus of Political Science. L.L.B., University of Cologne; J.D., University of Berlin; Ph.D., Stanford University.

DON C. WALTER

Associate Professor Emeritus of Music. B.A., Wartburg College; M.A., Colorado State College; Ed.D., University of Oregon.

EVELYN M. WELLMAN

Associate Professor Emeritus of Music. B.A., M.A., Western Washington State College.

FACULTY

Abrams, George H. / Ethnic Studies

Adams, Henry L. / Psychology

Ager, Phillip / Music

Aitken, Margaret H. / Physical Education

Albers, James R. / Huxley

Alexander, Marian L. / Library

Ames, Evelyn E. / Physical Education

Amundsen, Darrel W. / Foreign Languages

Anastasio, Angelo / Anthropology

Anderson, Kathryn L. / Fairhaven

Arellano, Raul / Ethnic Studies

Arkley, Alfred S. / Political Science

Arnett, M. Chappelle / Physical Education

Atkinson, Charles M. / Education

Atneosen, Richard A. / Physics

Babcock, Randall S. / Geology

Baird, Herbert LeRoy Jr. / Foreign Languages

Balas, Robert S. / Foreign Languages

Barnhart, Michael W. / Political Science

Barrett, W. Louis / Physics

Beck, Myrl E., Jr. / Geology

Beldin, Horace O. / Education

Berg, Richard H. / Huxley

Besserman, Marion / Chemistry

Bettis, Joseph D. / Fairhaven

Biasini, Americole / Music

Billings, Thomas / Education

Bishop, Richard T. / Education

Black, Joseph E. / Technology

Blackwell, Leslie / Education

Blood, Don F. / Psychology

Bosch, James W. / Anthropology

Bouverat, Roberta A. / Education

Bowman, Elizabeth / English

Boylan, Bernard L. / History

Brewster, Laurence W. / Speech

Broad, A. Carter / Biology

Brockhaus, Henrich / Foreign Languages

Brown, Don W. / Education

Brown, Edwin H. / Geology

Brown, Herbert A. / Biology

Brown, Robert D. / English

Brown, Willard A. / Physics

Bryant, William H. / Foreign Languages

Buckland, Roscoe L. / General Studies

Budd, William C. / Psychology

Bultmann, William A. / History

Burnett, Michael J. / Fairhaven

Burwell, Jerry L. / Technology

Byeman, Gerrit / Technology

Call, Donald J. / Sociology

Campbell, Steven K. / Library

Carlile, Sene R. / Speech

Carnean, Stephen L. / Psychology

Carroll, Katherine M. / Education

Cary, Meredith B. / English

Catrell, Dennis E. / Theatre/Dance

Chalice, Donald R. / Mathematics

Chaney, Robin W. / Mathematics

Chatham, Doris / Art

Christman, Robert A. / Geology

Clarke, David E. / Political Science

Clevidence, William Gary / Fairhaven

Clothier, Nita / General Studies

Clumpner, Roy A. / Physical Education

Cole, William D. / Music

Collier, Robert P. / Economics

Copenhaver, Brian P. / General Studies

Covington, Richard J. L. / Education

Craswell, Keith / Mathematics

Critchfield, Howard J. / Geography

Crook, Joseph R. / Chemistry

Cross, Robert J. / Library

Crow, Lowell T. / Psychology

Cvetkovich, George T. / Psychology

- Dallas, Lee A. / Education
Darrow, Helen F. / Education
Daugert, Stanley M. / Philosophy
Davidson, Melvin / Physics
Davis, James W. / Political Science
DeLorme, Roland L. / History
Diers, Carol J. / Psychology
Dittrich, William J. / Physics
Donker, Marjorie J. / English
Downing, Thomas E. / Philosophy
Drake, George F. / Sociology
Dresbeck, LeRoy Joseph / History
Dube, Maurice A. / Biology
Duemmel, James E. / Mathematics
- Easterbrook, Don J. / Geology
Eddy, Lowell P. / Chemistry
Eddy, Peter A. / Foreign Languages
Ehemann, Jane H. / Geography
Eklund, Donald D. / History
Elich, Peter J. / Psychology
Eliis, Ross C. / Geology
Elmendorf, William E. / Foreign Languages
Erbrey, Robert D. / Technology
Erickson, John E. / Biology
Evans, Howard M. / Education
- Faber, Eunice D. / Foreign Languages
Faulkner, Constance P. / Fairhaven
Fennimore, Flora / Education
Feringer, F. Richard / Education
Fleetwood, A. Hugh / Philosophy
Flora, Charles J. / Biology
Folsy, Maurice H. / Political Science
Fonda, Richard W. / Biology
Ford, Paul / Education
Foss, Ione A. / Art
Fowler, Richard J. / Technology
Francis, Richard L. / English
Frank, Barton / Music
Frazier, Thomas / Library
Freeman, Kenneth D. / Fairhaven
Freedland, Patricia A. / Physical Education
Froderberg, Albert J. / Mathematics
Frye, Richard / Economics/Huxley
- Gallegos, Arnold / Education
Gamlen, Sara Jeanne / Mathematics
Garber, Eugene K. / English
Garcia-Barragan, Guadalupe / Foreign Languages
Gayden, Ernst L. / Huxley
Gelder, Harvey M. / Fairhaven
Gerhold, George A. / Chemistry
Glass, Jerome / Music
Glenn, Paul C. / Fairhaven
Goldsmith, see Poggenburg
Goodrich, Lynda M. / Physical Education
Gossman, Charles / Sociology
Grabert, Garland F. / Anthropology
Gray, Neil R. / Mathematics
Gregory, William A. / Theatre/Dance
Grote, Frederick W. Jr. / Psychology
Grover, Burton L. / Education
Gutchow, Monica C. / Theatre/Dance
- Haag, Enid / Library
Hackler, Clyde M. / Technology
Haglund, Byron E. / Accounting
Hansen, Alta J. / Physical Education
Hanson, Lawrence / Art
Harder, K. Peter / Economics
Harris, Howard / Anthropology
Harris, Lyle / Journalism
Hazelbauer, Kathleen J. / Library
Hashisaki, Joseph / Mathematics
Hebal, John J. / Political Science
Heid, William H. / Fairhaven
Hefgott, Leonard M. / History
Hergen, Nona L. / Library
Herbold, Paul E. / Speech
- Higbee, C. Max / Education
Hildebrand, Francis H. / Mathematics
Hildebrand, James L. / Mathematics
Hill, Claude E. / Technology
Hill, Ford D. / Music
Hiller, Harley E. / History
Hiraoka, Jesse / General Studies/Ethnic Studies
Hitchman, James H. / History
Hite, F. Herbert / Education
Hogan, Eugene J. / Political Science
Horn, Thomas C. / History
Hovde, Annis J. / Fairhaven
Hovenier, Peter J. / Education
Huff, Robert E. / English
- Inniss, Kenneth B. / English
Ives, Fred M. / Mathematics
- Jack, Rand F. / Fairhaven
Jackson, Harry D. / History
Jensen, Robert A. / Art
Jewett, Robert I. / Mathematics
Johnson, Ellwood G. / English
Johnston, Thomas A. / Art
Jones, Elvet G. / Psychology
- Kaplan, Edward H. / History
Karason, Halldor C. / Education, Philosophy
Kauffman, Robert M. / Mathematics
Keep, William C. / English
Keller, Robert H. / Fairhaven
Kelly, Samuel P. / Education
Kest, Evelyn C. / Home Economics
Kim, Hyung-Chan / Education/Ethnic Studies
Kimball, Linda A. / Anthropology
Kimmel, Arthur S. / Foreign Languages
King, Donald M. / Chemistry
Kintz, B. L. / Psychology
Kleinknecht, Ronald A. / Psychology
Knight, John J. / Education
Kohn, Hubert E. / Biology
Kraft, Gerald F. / Biology
Krauss, Ellis S. / Political Science
Krieger, Milton H. / General Studies
Kriz, George S. Jr. / Chemistry
Kuhns, See Hazelbauer
- LaBounty, Edwin M. / Music
Lamb, George S. / Education
Lampman, Gary M. / Chemistry
Larner, Daniel M. / Theatre/Dance
Larrabee, Edith B. / Home Economics
Larsen, Golden L. / English
Lawyer, W. Robert / Library, English
Lee, Lawrence L. / English
Lee, Tommy / English
Levin, Richard G. / Mathematics
Lewis, Merrill E. / English
Lindquist, Norman F. / Mathematics
Lindsay, Richard H. / Physics
Lippman, Louis G. / Psychology
Lippman, Marcia Z. / Psychology
Long, Boyde / Physical Education
Lonner, Walter J. / Psychology
Lounsbury, James R. / Physical Education
Lummis, Charles D. / Fairhaven
- McAllister, Richard G. / Accounting
McClendon, John C. / Fairhaven
McCormick, Patrick F. / Art
McCracken, Robert A. / Education
McGaw, Howard F. / Education
McInnis, Raymond / Library
McIntyre, Mary A. / Art
MacKay, William R. / Psychology
McLeod, Donald B. / Fairhaven
McLeod, Raymond R. / Physics
McRandle, Carol C. / Speech
Mahoney, Eldon R. / Sociology
Maksymowicz, Alex / Physics

- Malmstead, Beverly / Fairhaven
Mammitsch, Ulrich / General Studies
Mar, Barry / Center for Urban Studies
Margaritis, Stephen C. / Education
Mariz, George Eric / History
Marsh, David F. / Art
Marx, Robert D. / Psychology
Mason, David T. / Fairhaven
Mason, Evelyn D. / Psychology
Mather, Dan / Library
Mayer, Erwin S. / Economics
Mazur, D. Peter / Sociology
Meade, Robert D. / Psychology
Mees, Hayden L. / Psychology
Menninga, Larry Dean / Mathematics
Merrill, Reed B. / English
Miles, John C. / Huxley
Milicic, Vladimir / Foreign Languages
Miller, Gerson A. / Journalism
Miller, John A. / Chemistry
Miller, Laurence P. / Psychology
Miner, Ralph E. / Political Science
Mischaikow, Michael K. / Economics
Mitchell, Howard E. / Economics
Moerschner, Kurt W. / Foreign Languages
Monahan, Robert L. / Geography
Monat, Jonathan S. / Business Administration
Montague, Phillip / Philosophy
Mookherjee, Debnath / Geography
Moon, Donald E. / Education, Technology
Moore, John S. / Business Administration
Mork, Theodore A. / Education
Muggerud, Ronald / Technology
Muldrow, George M. / English
- Nelson, David M. / Economics
Neuzil, Edward F. / Chemistry
Nickelson, Alden L. / Education, Biology
Nugent, Frank A. / Psychology
- O'Brien, James H. / English
Olmstead, Marvin L. / Speech
Olskamp, Paul J. / Philosophy
Olsen, Fred A. / Technology
Owens, Eugene / Business Administration
- Panek, David M. / Psychology
Parakh, Jal S. / Biology
Param, Charles / Foreign Languages
Patton, Robert T. / Business Administration
Paulus, Ingeborg L. E. / Sociology
Pavia, Donald L. / Chemistry
Payton, Rodney J. / General Studies
Peach, Janice R. / Home Economics
Peters, Robert A. / English
Petersen, Lois E. / Business Education
Peterson, Gilbert A. / Huxley
Peterson, Richard K. / Library
Pevear, David R. / Geology
Pielstick, Norval L. / Psychology
Pinney, Robert H. / Education
Plumlee, E. Leroy / Economics
Poggenburg, Helen / Foreign Languages
Polen, Samuel B. / Speech
Porter, Sam R. / Technology
Prim, Merle M. / Psychology
Pullan, C. Bruce / Music
Purtill, Richard L. / Philosophy
- Quigley, Robert J. / Physics
- Radke, August / History
Ramsland, Dorothy E. A. / Home Economics
Randall, Charles R., Jr. / Physical Education
Raney, Franklin C. / Geography
Rangel-Guerrero, Daniel / Foreign Languages
Rapoza, Nicole B. / Foreign Languages
Read, Thomas T. / Mathematics
- Reay, John R. / Mathematics
Rees, Earl R. / Psychology
Rich, Douglas / Bridge Project
Richard, Jerome E. / Fairhaven
Richardson, John G. / Sociology
Richardson, Larry S. / Speech
Riffey, Meribeth M. / Biology
Ritter, Harry Ray, Jr. / History
Ritter, Marian B. / Library
Robbins, Lynn A. / Huxley
Roberts, Jane E. / Home Economics
Robinson, Walter L. / Foreign Languages
Roe, Alfred L. / History
Roley, Paul L. / History
Romine, Ray S. / Education
Ross, Charles A. / Geology
Ross, June R. P. / Biology
Rupaal, Ajit S. / Physics
Russo, Salvatore / Chemistry
Rutschman, Carla J. / Music
Rutan, Gerard F. / Political Science
Ryan, Marjorie / English
Rygg, Paul T. / Mathematics
- Safavi, Farrokh / Business Administration
Sailors, William M. / Accounting
Sanderson, Donovan F. / Mathematics
Savay, Ronald / Accounting
Savitch, Leonard / Education
Scandrett, Robert L. / Music
Schaub, David B. / Music
Schinske, Erhart A. / Speech
Schlotterback, Thomas / Art
Schneider, David E. / Biology
Schuler, Carl U. / History
Schwalm, Ray A. / Technology
Schwartz, Maurice L. / Geology, Education
Schwartz, Sy / Education
Schwarz, Henry G. / Political Science, History
Schwemmin, Donald J. / Biology
Scott, James W. / Geography
Scott, William H. O. / Library
Seal, Michael / Technology
Seilo, Michael T. / Speech
Senger, Clyde M. / Biology
Shaffer, Ronald W. / Psychology
Sigler, Byron E. / Theatre/Dance
Singleton, William / Accounting
Skinner, Knute / English
Slesnick, Irwin L. / Biology
Smith, Alden C. / Speech
Smith, Pamela J. / Ethnic Studies
Smith, Richard G. / Geography
Solomon, Arthur L. / Speech
Southcott, Marvin A. / Technology
Spanel, Leslie / Physics and Astronomy
Sprague, Donald L. / Physics
Stannard, R. E., Jr. / Journalism
Starbird, Richard O. / Education
Steffens, Peter / Journalism
Stephan, G. Edward / Sociology
Stoeber, William K. D. / General Studies
Stoner, Paul H. / Music
Summers, William C. / Huxley
Swift, Larry E. / Education
Symes, Ken M. / English
- Tabasz, Thomas / Economics
Talbot, James L. / Geology
Taylor, Christopher J. / Psychology
Taylor, Herbert C., Jr. / Anthropology
Taylor, Ronald J. / Biology
Taylor, Sandra J. / Psychology
Templeton, David E. / Art
Terey-Smith, Mary / Music
Terich, Thomas A. / Geography
Teshera, Robert W. / Geography
Thomas, Edward B. / Art
Thomas, Leslie J. / History /

Thompson, Richard W. / Psychology
 Thoreson, Hubert N. / Business Education
 Thorndike, Robert M. / Psychology
 Towner, John C. / Education
 Truschel, Louis W. / History
 Tweddell, Colin E. / Anthropology
 Tyler, Vernon O., Jr. / Psychology

U'so, Robert A. / Art
 Usendale, John F. / Education

Vander Velde, Philip B. / Education
 Vander Yacht, Douglas R. / Theatre/Dance
 Van Wingerden, Stewart / Education
 Vassdal, Elsie / Technology
 Vawter, Richard D. / Physics
 Veit, J. Joseph / Physics
 Vernacchia, Ralph A. / Physical Education
 Vike, Gene E. / Art
 Vogel, Richard F. / Technology

Wallace, William L. / General Studies
 Walter, Ada L. / Business Education
 Waterman, C. Fred / Library
 Watrous, Mary W. / Education
 Webb, Loren L. / Speech
 Webber, Herbert H. / Huxley
 Wegner, Walter F. / Art
 Weiner, Homer A. / Art
 Weiner, Ruth F. / Huxley
 Weiss, Rudolf / Foreign Languages
 Weyh, John A. / Chemistry
 Whitmer, John C. / Chemistry
 Nicholas, Mark L. / Chemistry
 Wilkins Jr., James W. / Psychology
 Williams, Don C. / Biology
 Wilner, Jeffrey D. / Ethnic Studies
 Wilson, H. William / Chemistry
 Wiseman, Don W. / Physical Education
 Wiseman, Evelyn D. / Physical Education
 Witter, George E. / Mathematics
 Woll, John W. / Mathematics
 Wong, Herbert / Huxley
 Woodring, Paul / Education, Psychology
 Wright, Evelyn C. / English
 Wuest, John J. / Political Science

Yu, Ming-Ho / Huxley

Ziegler, David W. / Political Science
 Zoro, Eugene S. / Music

WILSON LIBRARY

W. ROBERT LAWYER (1960) Associate Professor of English and Director of the Library. BA, PhD, University of Washington.

Librarians

MARIAN L. ALEXANDER (1970) Assistant Professor and Head Catalog Librarian. AB, Occidental College; MLS, University of California, Los Angeles.
 STEVEN CAMPBELL (1974) Assistant Professor and Serials Librarian. BA, University of Colorado; M.Lib., University of Washington.
 ROBERT J. CROSS (1969) Associate Professor and Assistant Director for Public Services. BA, Carleton College; MLS, University of Washington.
 THOMAS FRAZIER (1964) Associate Professor and Humanities Librarian. BA, MA, MLS, University of Washington.
 ENID HAAG (1975) Associate Professor and Education Librarian. BS/Educ, University of Nebraska; MA/Educ, MLS, University of Denver.

KATHLEEN J. HASELBAUER (1972) Assistant Professor and Science Librarian. BA, Western Washington State College; MLS, University of Washington.
 RAYMOND G. McINNIS (1965) Associate Professor and Head Reference Librarian. BA, University of British Columbia; MLS, University of Washington.
 DAN MATHER (1969) Associate Professor and Asst. Director for Technical Services & Library Systems. BA, MLS, University of Washington.
 RICHARD K. PETERSON (1966) Assistant Professor and Archivist. BA, University of Washington; BA in Ed, Western Washington State College; MA, PhD, MLib, University of Washington.
 MARIAN A. RITTER (1969) Assistant Professor and Music Librarian. BME, MLS, University of Portland.
 WILLIAM H. O. SCOTT (1960) Associate Professor and Documents Librarian. AB, AM, AMLS, University of Michigan.
 C. FRED WATERMAN (1967) Assistant Professor and Head Acquisitions Librarian. BS, MLS, University of Pittsburgh.

SUMMARY OF ENROLLMENT—INDIVIDUALS

Resident

Summer Quarter, 1977	4,039
Fall, Winter, Spring, 1976-77	11,739

Continuing Education

Independent Study	242
Off Campus	4,662
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Total Continuing Education Enrollment	4,904

DEGREES AND CERTIFICATES

Degrees granted from August, 1976, to June, 1977, inclusive:

Master of Education	195
Master of Arts	68
Master of Science	38
Bachelor of Arts in Education	324
Bachelor of Arts	919
Bachelor of Science	237
Bachelor of Fine Arts	3
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Total	1,784

Teaching Certificates issued from

August, 1976, to June, 1977, inclusive:	
Provisional	406

Recommended for certification to the State Superintendent of Public Instruction—Standard Teaching Certificate	375
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APPENDICES

Appendix B STUDENT RIGHTS AND RESPONSIBILITIES

WAC 516-20-005 PREAMBLE. Students of Western Washington State College have an obligation to fulfill the responsibilities incumbent upon all citizens, as well as the responsibilities of their particular roles within the academic community. This chapter advises the student of his rights and responsibilities while enrolled at Western Washington State College. The student is expected to respect academic codes and federal, state, and local laws, and to act as a responsible member of the College community. As citizens, students enjoy the same basic rights as all members of society and are bound by the same responsibilities.

Appendix A POLICY OF NON-DISCRIMINATION

It is the policy of the Board of Trustees of Western Washington State College to provide equal employment opportunity for all employees and applicants for employment regardless of race, color, religion, national origin, sex, age, marital status, or the presence of any physical, sensory or mental handicap.

It is the responsibility of each member of the college community to insure that meaningful equal employment opportunity exists.

The College will continue to cooperate with agencies of the federal and state governments in fulfilling its legal and moral obligation in Equal Employment Opportunity.

The Board of Trustees further pledges that every effort will be made to provide resources for corrective and affirmative action programs to implement the above policy.

The Affirmative Action Office is also concerned with equal opportunity for students. Title VI of the Civil Rights Act of 1964 and Title IX of the Education Amendments of 1972 prohibit discrimination on the basis of race, color, national origin and sex in student admissions, programs and the provision of services, as well as in employment.

As a federal contractor, WWSC is obligated to and is committed to assuring equal opportunity. Persons having questions regarding the implementation of these policies should consult with the Affirmative Action Office in Old Main Room 442.

Complaints of discrimination based on race, color, religion, national origin, marital status, handicap, sex or age in educational programs, employment opportunities and student services at WWSC can be made through the Affirmative Action Student Grievance Procedure. — See Appendix E. The College Affirmative Action Officer serves as Title IX coordinator.

WAC 516-20-010 THE ACADEMIC CODE. Violations of the academic code of Western Washington State College are defined in WAC 516-20-011. Students accused of violations of the academic code shall be subject to College judicial action. The College and its teaching faculty shall take all reasonable steps to prevent and detect any violation of this academic code.

WAC 516 - 20 - 011 ACADEMIC CODE VIOLATIONS DEFINED. A student shall be subject to disciplinary action for the following acts of academic dishonesty:

(1) Giving unauthorized information to another student or receiving unauthorized information from another student during any type of examination or test.

(2) Obtaining or providing without authorization questions or answers relating to any examination or test prior to the time of the examination or test.

(3) Using unauthorized sources for answers during any examination or test.

(4) Engaging in any and all forms of plagiarism. Plagiarism is defined as the act of appropriating the literary composition of another, or parts or passages of another's writings, or the ideas or language of the same, and passing them off as the product of one's own mind.

(5) Engaging in any behavior which materially or substantially obstructs or disrupts teaching, research, or administrative functions necessary to assure continuation of the academic process, or any proceedings under this Chapter.

WAC 516-20-015 PENALTIES FOR VIOLATION OF THE ACADEMIC CODE. The sanctions set forth in this section are available to the College through its judicial structure for

students convicted of violating the academic code.

(1) Student(s) convicted on first offense:

(a) May be assigned a grade of F for the test or for the course involved.

(b) May be required to make restitution for any and all damage to or loss of personal or College property which is incurred as a result of the student's behavior. Restitution may include money payment to compensate for theft, damaged or destroyed property; repair or replacement of damaged or destroyed property; renovation of disturbed, cluttered, or contaminated areas.

(c) May be placed on Disciplinary Probation. This action indicates that for a specified period of time the student's continued enrollment is made conditional upon good behavior. It requires that the student demonstrate during his probationary period that he/she has learned to accept responsibility and can conform with the standards of behavior expected of all students. No notation is made on the permanent academic transcript, but a record is kept on file in the Office of Student Affairs until the student graduates or permanently severs his or her relationship with the College.

(d) May be placed on Disciplinary Suspension. This action results in the withdrawal of privileges of attending the College for a specified period of time.

(2) Student(s) convicted on the second offense:

(a) Shall receive a grade of F in the course involved and shall be placed on Disciplinary Probation.

(b) May be required to make restitution for any and all damage to or loss of personal or College property which is incurred as a result of the student's behavior.

(c) May be placed on Disciplinary Suspension.

(d) May be expelled. This action results in the withdrawal of privileges of attending the College with no promise (implied or otherwise) that the student may be reinstated to good standing at any future time.

(3) Student(s) convicted on the third offense:

(a) May be required to make restitution for any and all damage to or loss of personal or College property which is incurred as a result of the student's behavior.

(b) Shall receive a grade of F in the course involved, shall be placed on Disciplinary Suspension, and upon return to the College shall be placed on Disciplinary Probation for the remainder of his/her academic education.

(c) May be expelled.

(4) If a student comes before the College Conduct Hearing Officer and pleads guilty, action taken must be consistent with the above guidelines and shall be subject to the following restrictions.

(a) In no case shall the College Conduct Hearing Officer impose a sanction greater than Disciplinary

Probation.

(b) The sanction must be agreed to by both parties.

(c) The College Conduct Hearing Officer may refer the matter to the College Judicial Board or the Summer Quarter Judicial Board.

WAC 516-20-020 FREEDOM OF EXPRESSION. The rights of freedom of speech, petition, and assembly are fundamental to the democratic process. The Constitution of the United States guarantees these freedoms to all members of the Western Washington State College community. The College recognizes that it has an obligation to maintain on campus an atmosphere which allows the institution to perform the fundamental task of providing an opportunity for all members of this community to pursue further knowledge through accepted academic processes. To maintain a balance between the stated objectives of the College and the constitutional rights of students, it is essential that demonstrations and other expressions of opinion be peaceful. Students may not materially or substantially disrupt or obstruct freedom of expression.

WAC 516-20-030 SPEAKERS. In conformity with the traditions of free speech and free inquiry, the following rules are established to govern the appearance on campus of speakers not themselves members of the college community:

(1) Any person may speak on the campus of Western Washington State College when invited to do so by a member of the college community. Normal restraints imposed by law, such as rules concerning slander, shall be observed by speakers. The appearance of an invited speaker on the campus does not constitute an endorsement, either implicitly or explicitly, of the speaker's views by the college's faculty, administration, student body, or Board of Trustees, and the college does not assume any responsibility for views expressed by persons speaking on the college campus. A person who is not a member of the college community shall not have a right to demand to be allowed to listen to an address by a person invited to speak on the college campus.

(2) The scheduling of speakers shall be subject to the availability of appropriate space and the regulations currently in effect governing the use of college facilities.

(3) Public address or audio amplification equipment may normally be used only at the free speech platform located in the Viking Union Plaza. Use of such equipment in other areas of the campus must be authorized by the Vice President for Student Affairs or the Vice President's designee.

(4) The right of free speech does not immunize a speaker from legal action if the substance of the speaker's remarks is found to violate the legal rights of others.

(5) The essence of the right to speak is the freedom of the speaker to make his statement, and both the speaker and the audience are entitled to proceed without being subjected to physical interference or violence. Persons deliberately engaging in acts of violence or threats of violence or in other conduct which materially or substantially disrupts the exchange of ideas on the campus of Western Washington State College are subject to removal from the campus and/or prosecution under law.

WAC 516-20-040 PRINTED MATERIAL. The college shall provide bulletin boards and shall permit other methods for disseminating information such as leaflets, handbills and posters, according to the following guidelines:

(1) Handbills, leaflets, posters, written statements and similar materials, except those which are commercial or unlawful in character, may be distributed, without the necessity for advance review or approval, by any member of the community of Western Washington State College.

(2) Handbills and similar materials may be distributed from any room properly scheduled for that purpose, from authorized public areas in the Viking Union, and from outdoor areas on the campus when consistent with the protection of college property. Persons distributing handbills or similar materials and those hanging posters shall have a responsibility to prevent or avoid excessive littering.

(3) All handbills, posters and other similar materials shall indicate the name or the organization or member of the college community who is sponsoring or distributing the materials. All printed material which announces a coming event or attraction shall specify the time, date, and location of the event.

(4) Posters and other written materials may be subject to removal if their content is libelous or primarily commercial in nature.

(5) All posters advertising events must be removed by the distributing individual or group no later than three school days after the event.

WAC 516-20-050 PLACEMENT. The College endorses a free and open placement and recruitment policy.

WAC 516-20-071 ALCOHOLIC BEVERAGES. Alcoholic beverages may be used or possessed by persons on the campus only in accordance with Washington State Laws relating to alcoholic beverage control.

WAC 516-20-120 IDENTIFICATION OF PERSONS ON THE CAMPUS. College authorities have the right to seek proper identification of persons on the campus when there is reasonable cause to believe that said persons have violated federal, state, or local laws or College rules, regulations or policies.

WAC 516-20-125 JUDICIAL PROCEEDINGS. College judicial proceedings shall be instituted only for violations of the provisions of this Chapter. The responsibility for interpreting the provisions of this Chapter in the context of a particular case is vested in the College Conduct Hearing Officer and the College Judicial Board or the Summer Judicial Board. A particular act shall constitute a violation of this Chapter only where a reasonable interpretation of the language of the provisions of this Chapter indicates that the act is prohibited. The College Conduct Hearing Officer, the College Judicial Board, or the Summer Judicial Board may call upon the Committee on Student Rights and Responsibilities for an advisory interpretation of WAC Chapter 516-20 — STUDENT RIGHTS AND RESPONSIBILITIES.

WAC 516-20-137 JUDICIAL STRUCTURE. To facilitate understanding of the judicial structure established by this Chapter, the following diagram is provided.

VICE PRESIDENT FOR
STUDENT AFFAIRS
OF THE COLLEGE

COLLEGE
JUDICIAL
BOARD
(Appellate, Referral)

COLLEGE
CONDUCT
HEARING OFFICER
(Original)

WAC 516-20-140 COLLEGE JUDICIAL BOARD. (1) There is established a College Judicial Board which shall consist of six members: two faculty members, three students, and one member of the student affairs staff.

(2) The two faculty members of the College Judicial Board shall be appointed by the Vice President for Academic Affairs. The member of the student affairs staff on the College Judicial Board shall be appointed by the Vice President for Student Affairs. The three student members of the College Judicial Board and three alternates shall be appointed by the Western Washington State College Associated Students President. All appointments for each academic year shall be made during the first two weeks of fall quarter of the academic year. The Chairperson of the College Judicial Board shall be elected by the members of the board from within the membership of the board.

(3) The term of office of student members of the College Judicial Board shall be one regular academic year. If a student position on the College Judicial Board becomes vacant prior to the end of a term of office, the position shall be filled by one of the appointed alternates.

(4) The terms of office of the faculty and student affairs members of the College Judicial Board shall be one academic year.

(5) The College Judicial Board shall have authority to adjudicate and administer sanctions for violations of this Chapter.

WAC 516-20-145 COLLEGE CONDUCT HEARING OFFICER. (1) All alleged violations of the provisions of this Chapter may be heard by a College Conduct Hearing Officer.

(2) The College Conduct Hearing Officer shall be a professional member of the student affairs staff appointed by the Vice President for Student Affairs.

(3) The College Conduct Hearing Officer shall be responsible for reviewing evidence presented pertaining to an alleged violation and determining if it is sufficient to warrant a hearing. After reviewing the evidence presented, the College Conduct Hearing Officer may dismiss the case, hold a hearing with the accused student, his or her chosen representative and those bringing the charges against the accused, or refer the case to the College Judicial Board or the Summer Judicial Board.

(4) In the event the College Conduct Hearing Officer chooses to hear a case, the College Conduct Hearing Officer will inform the accused student of the charges and his or her rights to due process and arrange for a hearing with the accused student. Based on the evidence presented, the College Conduct Hearing Officer may determine the guilt or innocence of the accused student regarding the charges against the accused. If the College Conduct Hearing Officer finds that the accused is guilty of the charges, he or she may invoke no greater sanction than Disciplinary Probation.

(5) The College Conduct Hearing Officer shall inform the accused student of the right to appeal the decision of the College Conduct Hearing Officer to the College Judicial Board within seven (7) school days of the receipt of the determination.

WAC 516-20-150 SUMMER QUARTER JUDICIAL BOARD. (1) There shall be established a Summer Quarter Judicial Board which shall have the same jurisdiction as the College Judicial Board.

(2) The Summer Quarter Judicial Board shall serve only during the summer quarter.

(3) The Summer Quarter Judicial Board shall be composed of two students appointed by the Western Washington State College Associated Students' President, one faculty member appointed by the Vice President for Academic Affairs, and a member of the student affairs staff, other than the College Conduct Hearing Officer, appointed by the Vice President for Student Affairs.

WAC 516-20-155 JUDICIAL BOARD PROCEEDINGS. Five of the six members of the College Judicial Board and all of the members of the

Summer Quarter judicial Board shall be considered a quorum (i.e., must be present in order for that Board to take action). Each member of a judicial board shall have one vote in the deliberation of the board. Actions or decisions by a judicial board must be supported by a majority of the members of the board who are present at the time of the decision or action. A member of a judicial board who considers himself unable to render an impartial decision with regard to a particular case shall absent himself from the deliberations of the board with regard to that case, and may be replaced by an alternate.

WAC 516-20-160 PROCEDURES IN JUDICIAL PROCEEDINGS — INITIATION OF PROCEEDINGS. Formal judicial proceedings against a student may be initiated by any member of the college community by delivering to the College Conduct Hearing Officer a written statement of the charges against the student. The College Conduct Hearing Officer may choose to hear the case or refer it to the College Judicial Board. The Chairperson of the College Judicial Board or the College Conduct Hearing Officer shall notify the accused student of the statement of charges, clearly indicating which section of this Chapter the accused student is alleged to have violated and the general nature of the alleged violation.

WAC 516-20-165 NOTICE OF HEARING. (1) The Chairperson of the College Judicial Board or the College Conduct Hearing Officer may request a student formally charged with a violation of this Chapter to appear before the College Judicial Board or the College Conduct Hearing Officer by delivering to the student a formal notice of hearing and request to appear.

(2) The formal notice of hearing and request to appear shall state the nature of the alleged violation and the section of the college's academic code violated and shall indicate the time and place of the hearing.

(3) The notice of hearing and request to appear shall be sent by certified mail or hand delivered. When certified mail is used as a means of delivery, the notice will be mailed to the student at the last address on file in the Office of the Vice President for Student Affairs. If the notice is returned via the mails undelivered, the Office of Safety and Security will be charged with hand delivery and providing proof of delivery. The accused student must receive the notice of hearing and request to appear by not later than seven (7) school days prior to the hearing before the board or judicial officer.

WAC 516-20-170 FAILURE TO APPEAR BEFORE A JUDICIAL OFFICER OR JUDICIAL BOARD. The

failure of a student, formally charged with a violation of this chapter, to appear before the College Conduct Hearing Officer, the College Judicial Board, or the Summer Judicial Board after receiving a notice of hearing and request to appear shall be prohibited from registering for subsequent quarters until such time as he/she appears before the College Conduct Hearing Officer, the College Judicial Board, or the Summer Judicial Board.

WAC 516-20-175 PROCEEDINGS TO BE OPEN OR CLOSED. All proceedings of the college's judicial boards shall be open to the public unless the accused student submits a written request to the chairperson of the board asking that the proceedings be closed to the public. If the accused student wishes a closed hearing, written notice requesting such shall be submitted to the chairperson of the judicial board at least 24 hours in advance of the hearing.

WAC 516-20-180 RIGHTS OF THE ACCUSED STUDENT. (1) A student accused of violating the college's academic code shall have the right to a fair and impartial hearing before the College Conduct Hearing Officer, the College Judicial Board, or the Summer Judicial Board.

(2) No student may be asked by the College Conduct Hearing Officer, the College Judicial Board, or the Summer Judicial Board to give information or to answer any question concerning an alleged violation by the student of the college's academic code unless and until the student has been informed of:

(a) The fact that the student is suspected of having violated the college's academic code;

(b) The provision of the college's academic code which the student is suspected of having violated;

(c) The nature and date of the alleged violation;

(d) The student's right not to give any information regarding the alleged violation;

(e) The fact that the student may be accompanied by advisers of his/her choice, including legal counsel, at hearings to be held about the alleged violation.

(3) In judicial proceedings the accused student shall have the right to speak in his or her own behalf and be accompanied by advisers of his or her choice, including legal counsel. If the student intends to be represented by counsel, he or she must notify the College Conduct Hearing Officer or the chairperson of the judicial board at least 72 hours before the time scheduled for the hearing. The college may be represented by legal counsel.

(4) In all judicial proceedings the College Conduct Hearing Officer, the College Judicial Board, or the Summer Judicial Board and the accused student shall have the right to call any person to speak concerning the alleged violation, subject to the rules

of privilege recognized by law. The College Conduct Hearing Officer, the College Judicial Board, or the Summer Quarter Judicial Board may limit or exclude evidence which is irrelevant, immaterial, repetitious, or lacking in probative value.

(5) An accused student has the right to know who has brought the charges or allegations against the student and to cross-examine both the person(s) bringing the charges and all persons who present testimony against the student.

(6) A student shall not be subjected to college judicial action more than once for the same single violation of the college's academic code.

(7) The burden of proof in college judicial proceedings shall rest with the accuser, and a violation of the college's academic code must be proven by a fair preponderance of the evidence considered as a whole.

WAC 516-20-185 DECISION BASED SOLELY ON EVIDENCE. The decision of a judicial officer or judicial board shall be based solely on the evidence presented.

WAC 516-20-190 NOTIFICATION OF DECISION. The College Conduct Hearing Officer or the chairperson of the judicial board shall notify an accused student in writing of the disposition of the student's case and of the student's right to appeal an adverse decision.

WAC 516-20-195 RECORDS OF PROCEEDINGS. (1) A judicial officer or judicial board shall make a record of each case handled. This record shall include a statement of the charges brought against the accused student, a listing of the participants or witnesses in the judicial proceedings, a summary of the evidence presented during the proceedings and a statement of the final action taken by the judicial officer or judicial board. The records prepared by a judicial officer or judicial board shall be delivered to the Office of the Vice President for Student Affairs.

(2) The College shall not make the records of judicial proceedings available for inspection by any member of the public except at the written request of the student involved.

WAC 516-20-200 APPEALS. (1) An accused student shall have a right to appeal from an adverse decision by the College Conduct Hearing Officer or a judicial board and no sanction may be invoked against the appellant while such appeal is pending.

(2) A student aggrieved by a decision of the College Conduct Hearing Officer may appeal to the College Judicial Board or the Summer Quarter Judicial Board. A decision by the College Judicial Board or the Summer Quarter Judicial Board may be appealed to the Vice President for Student Affairs of the College.

(3) An appeal of a decision by the

College Conduct Hearing Officer or by the College Judicial Board or Summer Quarter Judicial Board must be filed within seven (7) school days after receipt of the decision from which the appeal is taken. The appeal must be in writing and must set forth the basis for the appeal.

(4) If an appeal is filed with the College Judicial Board, the Chairperson of the College Judicial Board will establish a time and place for the appeal proceedings and will give appropriate notice to all individuals involved in the proceedings. The College Judicial Board shall review an appeal on the basis of the evidence presented to, and record prepared by, the judicial officer from which the appeal is taken. The appellant has the right to request, as a part of his or her written statement, that the appeal be either a review of the proceedings without a re-hearing or a complete hearing of the evidence by the College Judicial Board.

(5) If an appeal is filed with the Vice President for Student Affairs, the Vice President shall review the appeal on the basis of the evidence presented to, and the record prepared by, the Judicial Board from which the appeal is taken.

WAC 516-20-205 WITHDRAWAL OF STUDENT PRIOR TO COMPLETION OF PROCEEDINGS. A student formally charged with a violation of the college's academic code who voluntarily withdraws from the college prior to the completion of the proceedings before the College Conduct Hearing Officer or a judicial board is not excused from pending judicial action. The accused student's future registration will be held in abeyance until such time as the student arranges to be available for the completion of the judicial proceedings. Whenever a student formally charged with a violation of the college's academic code is required to withdraw from the college for reasons beyond the student's control prior to the completion of the proceedings before a judicial board or the College Conduct Hearing Officer, the proceedings shall be postponed until such time as the student re-enrolls at the college.

WAC 516-20-210 COMMITTEE ON STUDENT RIGHTS AND RESPONSIBILITIES. (1) There is established a Committee on Student Rights and Responsibilities to be composed of four students: one appointed by Inter-Hall Council, one appointed by the President of the Associated Students, one appointed by the Associated Students' Governing Board, and one selected at large from the student body; one member of the student affairs staff appointed by the Vice President for Student Affairs; one faculty member appointed by the Faculty Council; one Associate Dean of Student Affairs; and the Director of Safety and Security.

(2) The primary purpose of the Committee on Student Rights and Responsibilities shall be to evaluate

the college's academic code and policies concerning student rights and responsibilities. The committee may recommend changes in policy concerning student rights and responsibilities and provide interpretations concerning the college's policies relating to student rights and responsibilities.

WAC 516-20-215 FAIRHAVEN COLLEGE. (1) Fairhaven College, through the Fairhaven Judicial Board, shall have autonomy with respect to judicial processes on the Fairhaven campus. The judicial procedures at Fairhaven shall be subject to review and change by the Fairhaven community and shall be established in a manner which is consistent with the rights of students and with the Fairhaven philosophy.

(2) The Fairhaven Judicial Board shall have jurisdiction over all violations of the academic code which occur on the Fairhaven campus. Violations of the academic code by Fairhaven students while on the main campus of Western Washington State College shall be under the jurisdiction of the College Conduct Hearing Officer and the College Judicial Board.

Approved by the Board of Trustees of Western Washington State College, June 3, 1976.

Appendix C STUDENT RECORDS POLICY

WAC 516-26-010 PURPOSE. The purpose of this chapter is to implement Public Law 93-380, The Family Educational Rights and Privacy Act of 1974 by establishing rules and procedures to insure that information contained in student records is accurate and is handled in a responsible manner by the college and its employees.

WAC 516-26-020 DEFINITIONS. For purposes of this chapter the following terms shall have the indicated meanings:

(1) "Student" shall mean any person who is or has been officially registered at and attending Western Washington State College and with respect to whom the college maintains education records or personally identifiable information.

(2) (a) "Education records" shall refer to those records, files, documents and other materials maintained by Western Washington State College or by a person acting for Western Washington State College which contain information directly related to a student.

(b) The term "education records" does not include the following:

(i) Records of instructional, supervisory or administrative personnel and educational personnel ancillary thereto which are in the sole possession of the maker thereof and which are not accessible or revealed to any other person except a substitute;

(ii) If the personnel of the college's Department of Safety and Security do not have access to education records under section 516-26-080, the records and documents of the Department which are kept apart from records described in WAC 516-26-020(2)(a), are maintained solely for law enforcement purposes, and are not made available to persons other than law enforcement officials of the same jurisdiction;

(iii) Records made and maintained by the college 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; or

(iv) Records concerning a student which are created or maintained by a physician, psychiatrist, psychologist, or other recognized professional or paraprofessional acting in his 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) a personal identifier, such as the student's social security number or student number, (d) a list of personal characteristics which would make it possible to identify the student with reasonable certainty, or (e) 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 or his designee.

WAC 516-26-030 ACCESS TO RECORDS. (1) Except as provided in WAC 516-26-035, each student at Western Washington State College 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 Vice President for Student Affairs shall prepare a list of the types of student education records which are maintained by Western Washington State College.

(3) A student wishing access to his or her education records shall submit a written request for access to the

Vice President for Student Affairs. A request for access shall be acted upon by the Vice President for Student Affairs within a reasonable period of time, not to exceed twenty days.

(4) The Vice President for Student Affairs shall provide students of the college with an opportunity for reasonable access to education records, provided that the Vice President for Student Affairs shall be responsible for taking appropriate measures to safeguard and insure the security and privacy of the institution's records while being inspected by students.

(5) The Vice President for Student Affairs 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 challenge a decision by the Vice President for Student Affairs to withhold certain of the student's records by filing an appeal with the Student Records Committee.

(6) This section shall not prohibit the College Registrar from providing a student with a copy of the student's academic transcript without prior clearance from the Vice President for Student Affairs.

WAC 516-26-035 — LIMITATIONS ON ACCESS. (1) Western Washington State College 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.

(b) Letters or statements of recommendation, evaluation or comment which were provided to the college 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 to 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 college, 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. Such a waiver may not be required as a condition for admission to, receipt of financial aid from, or receipt of other services or

benefits from the college.

(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 RECORDS. (1) The Vice President for Student Affairs 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 college 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 College.

WAC 516-26-045 REQUEST FOR EXPLANATION OR INTERPRETATION OF RECORD. The Vice President for Student Affairs shall respond to reasonable requests for explanations or interpretations of the contents of student education records.

WAC 516-26-050 CHALLENGES TO CONTENT OF RECORDS, TO RELEASE OF RECORDS, OR TO DENIAL OF ACCESS TO 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.

(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 insure that the records are not inaccurate, misleading, or otherwise in violation of the privacy or other rights of the students;

(b) Have the opportunity to correct or delete 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 college 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 — INFORMAL PROCEEDINGS. A student wishing to exercise the rights set forth in WAC 516-26-050(2) shall first discuss with the Vice President for Student Affairs the nature of the corrective action sought by the student.

WAC 516-26-060 — HEARING BEFORE STUDENT RECORDS COMMITTEE. (1) If informal proceedings fail to resolve the complaint of a student, the student may file with the Vice President for Student Affairs a written request for the hearing before the Student Records Committee of the college.

(2) Within a reasonable time after submission of a request for hearing, the Student Records Committee shall conduct a hearing concerning the student's request for corrective action.

(a) The student and the college shall be given a full opportunity to present relevant evidence at the hearing before the Student Records Committee.

(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 Records Committee 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 Records Committee 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 Records Committee shall have authority to order that the student be permitted access to the records.

(6) The decision of the Student Records Committee shall be rendered in writing within a reasonable period of time after the conclusion of the hearing.

WAC 516-26-065 STUDENT RECORDS COMMITTEE. (1) The Student Records Committee shall have six members, including one administrator, three students, and two faculty members.

(2) The members of the Student Records Committee shall be approved by the College Services Council and the ASWWSC Board of Directors for one-year terms. A simple majority shall have authority to act in the name of the Student Records Committee.

(3) The Student Records Committee shall be advised by the Assistant Attorney General representing the College.

WAC 516-26-070 RELEASE OF PERSONALLY IDENTIFIABLE INFORMATION OR EDUCATION RECORDS. Except as provided in WAC 516-26-

080, 516-26-085, or 516-26-090, the college 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.

WAC 516-26-075 — NATURE OF CONSENT REQUIRED. Where the consent of a student is required under WAC 516-26-070 for the release of education records or personally identifiable materials contained therein, the student's consent shall be in writing, shall be signed and dated by the student, and shall include a specification of the records to be released, the reasons for such release, and the names of the parties to whom the records may be released.

WAC 516-26-080 — EXCEPTIONS TO CONSENT REQUIREMENT. (1) The college 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) College officials, including faculty members, when the information is required for a legitimate educational purpose within the scope of the recipient's official responsibilities with the college 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 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 college 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 compli-

ance therewith by the college. Any college 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 college.

(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 college 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 college 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 designee may, without the consent of a student, release the student's education records or personally identifiable information contained therein to 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 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.

(3) If the College, pursuant to subsection (1) of this Section, releases personally identifiable information concerning a student without the student's consent, the College 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 DIRECTORY INFORMATION. (1) The College may release "directory information" con-

cerning a student to the public unless the student either requests in writing of the Vice President for Student Affairs, or expressly indicates on the Western Washington State College Registration Data Sheet, 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, address, telephone listing, dates of attendance, degrees and awards received, participation in officially recognized sports, and weight and height if a member of an athletic team.

WAC 516-26-095 DESTRUCTION OF STUDENT RECORDS. Except as otherwise provided by law, the college shall not be precluded under this chapter from destroying all or any portion of a student's education records, provided that no education record to which a student has requested access shall be removed or destroyed by the college prior to providing the student with the requested access.

WAC 516-26-100 NOTIFICATION OF RIGHTS UNDER THIS CHAPTER. The college shall provide reasonable notification to students of the rights of students under this chapter.

(1) Notice will be provided to students under this section at least annually, and shall include the following:

(a) A statement of the types of education records maintained by the college;

(b) The name and position of the employee of the college responsible for the maintenance of each type of record, the persons who have access to those records, and the purposes for which such persons have access;

(c) A copy of the rules and procedures set forth in this chapter; and

(d) A statement concerning the cost which will be charged to a student for reproducing copies of the student's records.

Approval by the College Senate
April 26, 1976.

Approved: Board of Trustees
August 12, 1976.

Appendix D STUDENT ACADEMIC GRIEVANCE 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 College and the College's academic units. A student with an academic grievance must pursue the following grievance procedure once having received notice of the action or decision which gives rise to the grievance.

2. Definitions

As used in the context of academic grievance procedures,

A. "Academic grievance" shall refer to a claim by a student that:

(1) A specific grade assigned to the student by an instructor is the result of an arbitrary or capricious application of otherwise valid standards of academic evaluation, or

(2) The standards employed by an instructor in evaluating the academic progress of the student are arbitrary or capricious, or

(3) An instructor has taken an arbitrary or capricious action or made an arbitrary or capricious decision which adversely affects

(4) An academic unit has reached an erroneous decision or taken an erroneous action which adversely affects the student's academic standing or academic career.

B. "Arbitrary or capricious" shall refer to action taken without consideration of, or in disregard of, pertinent facts or circumstances of a particular case.

C. "Erroneous" shall refer to an action or decision which leaves a reviewing body, which has considered the entire evidence, with the conviction that a mistake has been committed.

D. "Academic unit" shall refer to a department or cluster college (or subunit thereof).

E. "Head of academic unit" shall refer to a department chairperson or a dean of a cluster college.

3. Procedures

A. Mediation

(1) Grievance Against Individual Instructor. A student with an academic grievance against an individual instructor shall first thoroughly discuss the matter with the instructor involved. Both parties shall make every effort to resolve the grievance on an informal basis at this time. *The student must meet with the instructor within fifteen [15] school days of receiving notification of the action or decision which gives rise to the grievance.* If it is not possible for the student to meet with the instructor within fifteen days [15] after receiving notice of

the contested action because of the absence of either of the parties from campus, the student shall immediately notify the instructor and the head of the academic unit in writing of the existence of the grievance. In such instances, the student shall be required to meet with the instructor to discuss the grievance within fifteen (15) school days after both individuals are again available on campus. In the event the instructor has ceased to be employed by the College or is expected to be absent from the campus more than one (1) quarter, the student may appeal directly to the head of the academic unit. If the results of the informal discussion between the student and the instructor are unsatisfactory, the student may appeal to the head of the academic unit. The academic unit head (or his designee) shall consult with the student and the instructor and make every effort to resolve the dispute on an informal basis. Upon conclusion of mediatory efforts the head of the academic unit, or his designee, shall render a written decision regarding the merits of the grievance and provide both parties with a copy. *This decision shall detail either [1] acceptance of the grievance and description of the steps taken to resolve it, or [2] rejection of the grievance stating reasons for the rejection and notifying the student of his right of appeal.*

Either party may appeal to the Student Academic Grievance Board from a written decision of the academic unit head or his designee. All such appeals must be filed within fifteen (15) school days after issuance of such a written decision.

(2) Grievance Against Academic Unit. A student with an academic grievance against an academic unit shall first thoroughly discuss the matter on an informal basis with the head of the academic unit or his designee. Both parties shall make every effort to resolve the grievance at this time. If the results of this effort are unsatisfactory, the student may request an informal hearing of the matter before the academic unit. At such a hearing, both parties shall make every effort to resolve the grievance.

The head of the academic unit, or his designee, shall render a written decision regarding the merits of the grievance, providing the student with a copy. Either party may appeal to the Student Academic Grievance Board from a written decision of the academic unit head, or his designee. Such an appeal must be filed with fifteen (15) school days after issuance of such a written decision.

B. Appeal to Board

(1) The Student Academic Grievance Board shall consist of five (5) members: two students, two faculty, and one administrator from the Office of the Vice President for Student Affairs. Appointments shall be for one-year terms with reappointment for as many as three consecutive terms. One faculty and one student alternate shall be appointed to serve in the event that a member should resign or refuse to participate in a particular case.

(2) Any party filing an appeal to the Board and any party against whom such an appeal is filed shall each be required to deliver to the Board written statements setting forth the facts of the case and all arguments in support of the party's position, together with any additional relevant materials (including written statements prepared by other persons). The Board shall have authority to set time limits for the submission of such statements and materials. All statements submitted to the Board shall be signed and verified by the persons making the statements.

(3) Each party shall have the right to file a written reply to the statements or arguments of the opposing party within such time as the Board may provide.

(4) Each party shall be responsible for bringing before the Board all facts which the party wishes the Board to consider. Matters not included within a party's written statements, arguments, or reply shall be deemed waived, and the Board may refuse to consider such matters.

(5) The Board may, when it is deemed necessary or appropriate to disposition of the Case, request the presence of witnesses (including the parties) before the Board for oral testimony. The parties shall each have the right to be present whenever the Board hears oral testimony. The Board shall, in the exercise of its discretion, determine the scope of, and the means of taking, any oral testimony.

C. Final Decision by the Board

(1) The Board shall consider as a whole all the evidence which has been presented. The final decision by the Board shall be in writing and shall be delivered to both parties.

(2) The Board shall have the authority at its discretion:

(a) To uphold the contested action or decision of the instructor or academic unit;

(b) To render a finding that the instructor has acted arbitrarily and capriciously, and to issue a request to the instructor that the

decision or action which gave rise to the grievance be revised or retracted; or to issue a request to the Academic Vice President that the student's grade be changed;

(c) To render a finding that the academic unit has taken an action or reached a decision which is erroneous, and to issue a request to the academic unit that the decision or action which gave rise to the grievance be revised or retracted; or to issue a request to the Academic Vice President that the decision or action which gave rise to the grievance be revised or retracted.

(3) To reduce the probability of future grievances, the Board may also choose to:

(a) Recommend to the head of the academic unit changes in unit procedures,

(b) Recommend to the instructor changes in instructional procedure.

D. Appeal to Academic Vice President

Either party may appeal to the Academic Vice President from final decisions by the Board. Such appeal shall be made within fifteen (15) school days after the issuance of the Board's final written decision. The Academic Vice President may uphold, overrule, or modify the final decision of the Board only if said final decision was arbitrary, capricious, or beyond the scope of the Board's authority.

E. 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.

Appendix E AFFIRMATIVE ACTION STUDENT GRIEVANCE PROCEDURE

Persons who have questions or need assistance in processing a grievance should contact Mary Robinson, Title IX Compliance Officer, in Old Main 442 [Phone 3306].

I. POLICY

The Affirmative Action policy at Western Washington State College complies with the following federal acts relating to equal opportunity in education:

Title VI of the Civil Rights Act of 1964

Prohibits discrimination based on race, color or national origin in any program or activity receiving federal financial assistance

Title IX of the Education Amendments of 1972

Prohibits discrimination based on sex in all federally assisted education programs

Affirmative Action is a positive effort by Western Washington State College to eradicate past discriminatory injustices based on race, color, religion, national origin, marital status, handicap*, sex or age in educational proceedings throughout each area of student involvement. Cooperation and fair play are essential for equal educational opportunity goals to be realized.

Any student or prospective student who believes he or she has been discriminated against may file a grievance with the Affirmative Action Student Grievance Adjudication Committee irrespective of any opinion as to the validity of the grievance held by any agent of the College. The complainant may choose an Affirmative Action advocate or any other person to assist at every step of the grievance procedure. In the presentation of grievances, the advocate or the complainant's representative and the complainant shall be safe from restraint, interference, discrimination or reprisal. A file of grievance proceedings shall be maintained by the Affirmative Action Office. This information shall not be placed in the student's personal file or made available to others unless so stipulated by the complainant.

Before utilizing the grievance procedure, students should attempt to resolve complaints at the initial level with all parties concerned. Complaints not involving discrimination should be adjudicated utilizing other appropriate student appeal mechanisms.

II. Definitions

A. Hearing Officer

The Affirmative Action Student Grievance Hearing Officer is appointed by the Affirmative Action Officer and Associated Student Body President in consultation with the Associated Students Board of Directors. The Hearing Officer is charged with exercising the following options with any alleged violation of the Affirmative Action Policy:

1. To conduct an informal hearing of the matter with the complainant and the respondent;
2. To refer the case to the Adjudication Committee;

3. To dismiss the case at this point upon agreement with the complainant and the individual(s) involved in the action (the respondent(s)).

B. Adjudication Committee

This committee, appointed annually by the President, consists of five individuals representing the various college constituencies including minority group members and both men and women. The Committee will be made up of one administrator, two faculty members, and two students, and will select its own chairperson.

c. Advocates

Advocates shall be appointed by the Affirmative Action Officer from students, faculty, administrators and staff. It is the Advocate's responsibility to provide counsel and assistance to students in filing and processing complaints. Advocates will receive appropriate training prior to assuming their responsibilities. The Advocate position will be advertised each year through the College news media.

III. Grievance Procedure

Alleged discrimination may be in any of the following areas: admissions, educational programs (academic coursework, classroom situations, etc.), physical education, athletics, student services, financial aids, student organizations, facilities, employment, housing, health care, scholarships or student activities. (Textbooks and curricula are specifically exempted from this coverage under Federal regulations.)

Students or prospective students who believe they have been discriminated against because of race, color, religion, national origin, marital status, handicap*, sex or age may utilize the following grievance procedure. Persons having questions about the procedure should contact the Affirmative Action Office.

A. Informal Procedure of Complaint:

The complainant should initially discuss the grievance with the respondent. If the complainant chooses not to involve the respondent at this point, the complainant should seek advice and counsel provided by the Office of Student Affairs. The Student Affairs Officer will attempt to get the two parties together to discuss and mediate the issue at this informal level. Such mediation may involve contacting and utilizing a departmental appeal committee or

*Handicap as defined by the Washington State Human Rights Commission.

process. If the complainant is not satisfied after this effort, he/she should put the complaint in writing and may initiate the formal procedure.

B. Formal Initiation of Complaint:

The student or prospective student formally initiates an Affirmative Action grievance by putting the issue in writing and discussing the matter with the person or persons named in the action, a Student Affairs Officer, and the chosen advocate. The matter may be concluded by mutual consent at this point.

C. Appeal to the Hearing Officer:

If the complainant is not satisfied with the respondent's action or explanation, a written appeal may be submitted to the Hearing Officer with copies sent to the department head or director, the respondent, the Affirmative Action Officer, and the Adjudication Committee. Within 15 calendar days of receipt of the appeal, the Hearing Officer will consult with the complainant, the respondent, department head or director, and the chosen advocate and attempt to resolve the matter. Final action of the Hearing Officer shall take place within 30 calendar days of receipt of the appeal.

D. Appeal to the Adjudication Committee:

If, after meeting with the Hearing Officer, the complainant continues to be dissatisfied, a written appeal may be submitted to the Chairperson of the Adjudication Committee with a copy sent to the department head or director, and the respondent. After receipt of this appeal, the Committee will meet and evaluate the case.

Any party filing an appeal to the Adjudication Committee and any party against whom such an appeal is filed shall be required to deliver to the Committee written statements setting forth the facts of the case and all arguments in support of the party's position, together with any additional relevant materials (including written statements by other persons).

E. Final Recommendations of the Adjudication Committee:

Final recommendations of the Adjudication Committee to the College's Affirmative Action Officer must be made within 45 calendar days of initial receipt of the appeal. This 45-day deadline may be extended provided that such extension is agreed to in writing by both the complainant and the respondent. The Affirmative Action Officer shall make final recommendations to the appropriate vice president concerning the resolution of the grievance.

The names of the current Hearing Officer, Advocates, and Adjudication

Committee members and information on department appeal committees are available in the Affirmative Action Office.

In the event the above procedure does not prove satisfactory, the following agency may be contacted:

Office for Civil Rights
Department of Health, Education
and Welfare
1321 Second Avenue
Seattle, Washington 98101

Appendix F PARKING AND TRAFFIC

It is recommended that vehicles not be brought to the campus unless absolutely necessary. Due to the geographical location of the campus the parking currently available on and around the campus is not adequate to cover the desires of the college community.

Western Washington State College has established rules and regulations governing parking under Washington State Administrative Code 516-12. Although parking regulations are constantly under study and revision, all students who utilize parking facilities on campus are required to purchase a parking permit and register their car (or cars), motor bike, or motorcycle, at the time of official registration. The current parking permit fees vary from \$4 to \$8 per quarter depending on the location of the parking lot. Violators of parking regulations are towed away. For further information contact the campus Safety and Security Department.

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***NAME CHANGE NOTE**

By action of the Washington State Legislature and the Governor in June 1977, Western's name was changed from Western Washington State College to Western Washington University, effective fall quarter, 1977.

This 1977-79 General Catalog was developed and prepared for printing prior to that action, hence all references contained herein do not reflect the name change.



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