



Lois Moulton

Office of Admissions

General
Catalogue
1961-1962

WESTERN
WASHINGTON
STATE COLLEGE
BULLETIN



Admissions - 41-43
Arts + Sciences - 90-91
Finances - 61-64
Junior Coll - 93
Low Scholarship 49
Teacher Ed - 73-74

Cover design

"Autumn, Northwest"

Water Color by David Marsh

WWSC Art Faculty



General Catalogue

1961 - 1962

**WESTERN
Washington State College***

Bellingham, Washington

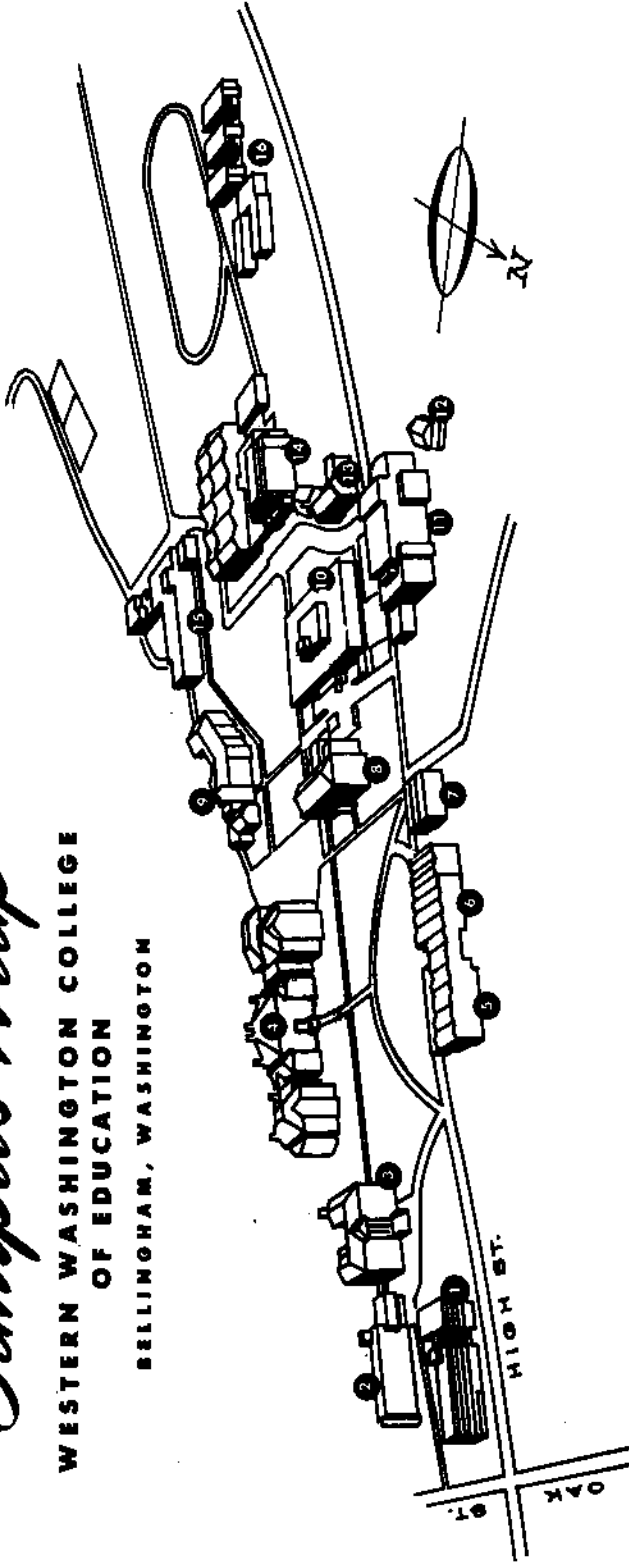
JUNE, 1961

*Previously Western Washington College of Education. The new name becomes effective, with this catalogue, on September 1, 1961.

Campus Map

WESTERN WASHINGTON COLLEGE
OF EDUCATION

BELLINGHAM, WASHINGTON



LEGEND

- | | | |
|------------------------|-------------------------------|----------------------------|
| 1. Edens Hall West | 9. Campus School | 13. Women's Residence Hall |
| 2. Edens Hall North | 10. Haggard Hall of Science | 14. Gymnasium |
| 3. Edens Hall South | 11. Auditorium-Music Building | 15. Arts Building |
| 4. Old Main | 12. President's Home | 16. Highland Hall |
| 5. Central Dining Hall | | |
| 6. Viking Union | | |
| 7. Book Store | | |
| 8. Library | | |

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WESTERN WASHINGTON STATE COLLEGE BULLETIN

Volume LVII

July, 1961

Number 1

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1961

SEPTEMBER

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1962

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FEBRUARY

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College

Fall Quarter, 1961

- August 15, Last day for admission application
- September 6-15, Registration of new students, by appointment
- September 24, Sunday, 7:30 p. m.
Convocation for new students
- September 26, Tuesday, 8:00 a. m.
4:00 p. m.
Enrollment of returning students
- September 27, Wednesday, 8:00 a. m.,
Classes begin
- October 3, Tuesday,
Final day of enrollment
- October 28 and 29, Friday and Saturday,
Homecoming
- November 22, Wednesday, 12:00 noon-
November 27, Monday, 8:00 a. m.,
Thanksgiving recess
- December 12, Tuesday,
Final examinations begin
- December 15, Friday, 3:00 p. m.
Quarter ends

Winter Quarter, 1961

- January 1, Monday, 2:00 p. m.
Dormitories open
- January 2, Tuesday, 8:00 a. m.,
Registration
- January 3, Wednesday, 8:00 a. m.,
Classes begin
- January 9, Tuesday,
Final day of enrollment
- February 22, Thursday,
Washington's Birthday (holiday)
- March 13, Tuesday,
Final examinations begin
- March 16, Friday, 3:00 p. m.,
Quarter Ends

Calendar

Spring Quarter, 1962

March 26, Monday, 8:00 a. m.,
Registration Day

March 27, Tuesday, 8:00 a. m.
Classes begin

April 2, Monday
Final day of enrollment

May 30, Wednesday
Memorial Day (holiday)

June 4, Monday,
Final examinations begin

June 7, Thursday, 3:00 p. m.
Quarter ends

Schedule of
Commencement Events
to be announced

Summer Quarter, 1962

June 18, Monday,
Registration Day

June 19, Tuesday, 7:30 p. m.
Classes begin

July 4, Wednesday,
Independence Day (holiday)

July 27, Friday
End of six-week session

August 17, Friday, 5:00 p. m.
Quarter ends

1962						
MARCH						
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AUGUST						
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19	20	21	22	23	24	25
26	27	28	29	30	31	

Directions for Correspondence

Inquiries should be addressed to the offices named below:

GENERAL POLICY OF THE COLLEGE.....The President

ADMISSION

Undergraduate.....Admissions Officer

Graduate.....Director of Graduate Studies

ALUMNI AFFAIRS.....Director of Alumni Services

EXTENSION AND CORRESPONDENCE COURSES.....
.....Director of Extension Services

FEES OR BUSINESS MATTERS.....The Comptroller

GENERAL INFORMATION.....Admissions Officer

HONORS PROGRAM.....Chairman of the Honors Board

HOUSING AND RESIDENCE HALL ASSIGNMENTS.....
.....Dean of Men or Dean of Women

LOANS.....The Dean of Men

PART-TIME EMPLOYMENT.....The Dean of Men

PLACEMENT OF GRADUATES.....Director of Placement

SCHOLARSHIPS AND AWARDS.....Admissions Officer

STUDENT TEACHING.....Coordinator of Student Teaching

THE CAMPUS SCHOOL.....Principal of the Campus School

TRANSCRIPTS OF RECORD AND ACADEMIC REPORTS.....Registrar



Organization and Personnel

Administrative Officers

JAMES L. JARRETT, Ph.D.	.....	President
MERLE S. KUDER, Ph.D.	.....	Dean of Students and Coordinator of Instruction
J. ALAN ROSS, Ph.D.	.....	Dean of the Summer Session, Director of Graduate Studies
MELVIN A. ALLAN, Ed.D.	.....	Director of Placement and Editor of College Publications
S. J. BUCHANAN	.....	Comptroller
DOROTHY BUTTON, Ed.M.	.....	Assistant Registrar
DONALD A. FERRIS, M.A.	.....	Registrar
HAROLD A. GOLTZ, M.A.	.....	Assistant to the President
C. W. McDONALD, M.A.	.....	Dean of Men
WILLIAM J. O'NEIL, Ed.M.	.....	Admissions Officer
PATRICK PENLAND, Ph.D.	.....	Director of Extension Services
LORRAINE POWERS, M.A.	.....	Dean of Women
RICHARD REYNOLDS, M.Ed.	.....	Director of Student Activities
ROBERT SIMPSON, Ed.D.	.....	Principal of Campus School

Psychological Services and Research Staff

WILLIAM BUDD, Ph.D., Acting Director
WILLIAM A. HALL, M.D.
FRANK NUGENT, Ph.D.

Library Staff

MILDRED HERRICK, M.A. in L.S. Librarian
JAMES D. HANNA, B.A. in Ed.
HERBERT R. HEARSEY, M.S. in L.S.
MIRIAM S. MATHES, M.S.
WILLIAM H. O. SCOTT, A.M.L.S.

Governing Boards, 1961 - 1962

Board of Trustees

JOSEPH T. PEMBERTON, LL.B.....	Bellingham
Term ends June, 1963	
MARSHALL FORREST, J.D.....	Bellingham
Term ends June, 1967	
DAVID G. SPRAGUE, M.A.....	Seattle
Term ends June, 1963	
BERNICE M. HALL, B.A. in Ed.....	Bellingham
Term ends June, 1963	
STEPHEN CHASE, B.A.....	Everett
Term ends June, 1965	

State Board of Education

LOUIS BRUNO, President Ex-Officio.....	Spokane
WILLIAM P. BOWIE.....	Kirkland
Term ends January, 1963	
FRANK S. EMERT.....	Omak
Term ends January, 1965	
JAMES F. HODGES.....	Bainbridge Island
Term ends January, 1967	
MARK E. HOEHNE.....	Langview
Term ends January, 1966	
STANLEY M. LITTLE, JR.....	Seattle
Term ends January, 1964	
FRANK M. LOCKERBY.....	Tacoma
Term ends January, 1966	
WILLIAM M. LUEBKE.....	Tieton
Term ends January, 1963	
HERMAN R. PRAETORIUS.....	Chehalis
Term ends January, 1964	
MRS. HELEN RADKE.....	Port Angeles
Term ends January, 1962	
T. G. REAMES.....	Spokane
Term ends January, 1962	
JOHN N. RUPP.....	Seattle
Term ends January, 1964	
JAMES M. SPALDING.....	Bickleton
Term ends January, 1967	
ROBERT R. WALTZ.....	Snohomish
Term ends January, 1965	
HAROLD WATKINS.....	Tacoma
Term ends January, 1967	

Councils of the Faculty

Faculty Council

*Arthur Hicks, Chairman	Jerome Glasé	*Howard Mitchell
Marion Besserman	James Hildebrand	Robert Monahan
Ray Ciszek	Annis Havde	August Radke
Don Ferris	*M. S. Kuder	*Dorothy Ramslund
Harvey Gelder	David Marsh	*Bearnice Skeen

*Executive Committee

Administrative Council

James L. Jarrett, Chairman	Erwin Mayer
P. H. Atteberry	Keith Murray
Lawrence Brewster	Hazel Plympton
William Budd	Dorothy Ramslund
Robert Christian	Alan Ross
Raymond Cizek	Robert Simpson
Howard Critchfield	Leona Sundquist
Frank D'Andrea	Herbert Taylor
Donald Ferris	Ruth Weythman
Harvey Gelder	Erwin Mayer
Irwin A. Hammer	
Charles Harwood	
Raymond Hawk	
Mildred Herrick	
Arthur Hicks	
Eleanor King	
Fred Knapman	
M. S. Kuder	

Academic Councils

GRADUATE COUNCIL

Alan Ross, Chairman
 Don Blood
 Katherine Carroll
 Eleanor King
 James Martin
 August Radke
 Ray Schwalm

COUNCIL ON TEACHER EDUCATION

Ralph Thompson, Chairman
 Bernard Boylan
 Don Brown
 Charles Flora
 Charles Harwood
 Halldor Karason
 Fred Knapman
 Bearnice Skeen

HONORS BOARD

Henry Adams, Chairman
 Frank D'Andrea
 Charles Flora
 Arnold Lahti
 Erwin Mayer
 Sydney Mendel
 Sheldon Rio
 J. Alan Ross

COUNCIL ON ARTS AND SCIENCES

Marion Besserman, Chairman
 Edward Arntzen
 William Budd
 Mayle Cederstrom
 Jerome Glasé
 Paul Herbold
 Pames Hildebrand
 Vivian Johnson

COUNCIL ON GENERAL EDUCATION

Edwin Clapp, Chairman
 Henry Adams
 Angelo Anastasio
 Gerald Cohen

Arnold Lahti
 David Schaub
 Mary Waitrous
 George Witter

The FACULTY

Emeriti

- WILLIAM WADE HAGGARD.....President Emeritus of the College
B.A., Maryville College; M.A., University of Michigan; Ph.D., University of Chicago;
Ed.D. (Honorary), Maryville College.
- MAY LOVEGREN BETTMAN....Instructor Emeritus in Commercial Studies
Vashon College; Washington State University; Western Michigan College of Education,
Kalamazoo; Western Washington State College.
- MIRA E. BOOTH.....Assistant Professor Emeritus of Music
B.A., University of Washington; M.A., Teachers College, Columbia University; University
of Southern California.
- S. E. CARVER.....Associate Professor Emeritus of Physical Education
B.A., Stanford University; M.A., University of Iowa; University of California; University
of Oregon.
- LINDA COUNTRYMAN..Associate Professor Emeritus of Home Economics
B.S., Milwaukee-Dowder College; M.A., Teachers College, Columbia University; University
of Chicago.
- NORA B. CUMMINS....Professor Emeritus of Political Science and History
B.A., University of Minnesota; M.A., Columbia University; Northern Normal and
Industrial School.
- GEORGIA P. GRAGG....Instructor Emeritus of Commercial Studies and
Handwriting
Western Washington State College; A.N., Palmer School of Penmanship.
- IRWIN A. HAMMER.....Professor Emeritus of Education
University of Toulouse, Toulouse, France; B.A., Park College; M.A., University of
Colorado; University of Minnesota; University of Chicago; Ed.D., Teachers College,
Columbia University.
- RAYMOND F. HAWK.....Professor Emeritus of Education
B.A., DePauw University; M.A., Stanford University; Ph.D., Washington State
University.
- THOMAS F. HUNT.....Associate Professor Emeritus of Geography
B.A., University of Minnesota; M.A., Clark University; University of Chicago; University
of California.

- LUCY KANGLEY.....Professor Emeritus of English
B.A., M.A., University of Washington; Ph.D., Columbia University; Cambridge University; University of London; University of Minnesota; University of Colorado.
- PRISCILLA KINSMAN.....Assistant Professor Emeritus of Education
Ph.B., University of Chicago; M.A., Teachers College, Columbia University; University of Washington.
- IRVING E. MILLER.....Professor Emeritus of Education
B.A., University of Rochester; M.A., Ph.D., University of Chicago.
- ANNA ULLIN.....Assistant Professor Emeritus of Foreign Languages
B.A., University of Washington; M.A., Teachers College, Columbia University; Certificate, Sorbonne, Paris; Oxford; University of Mexico.
- MABEL ZOE WILSON.....Professor Emeritus, Librarian
B.A., Ohio University; B.L.S., New York State School of Library Science.

The Faculty

1960-1961 and 1961-1962

Names preceded by ♦ constitute a complete and accurate list of faculty during the 1960-1961 academic year.

Names preceded by * constitute a list of the faculty for the 1961-1962 academic year as completed to June 1, 1961.

Ranks indicated are for the 1961-1962 academic year.

NOTE: Date in parenthesis indicates year of initial service with the College.

- ♦HENRY L. ADAMS (1957).....Associate Professor of Psychology
B.A., M.A., University of Kentucky; Ph.D., University of Illinois.
- ♦*MARGARET AITKEN (1946)....Associate Professor of Physical Education
B.A., University of Washington; M.A., Ed.D., Teachers College, Columbia University.
- ♦*MELVIN A. ALLAN (1953).....Associate Professor of Education;
Director of Placement
and Editor of College Publications
B.A., University of Washington; Ed.M., Western Washington State College; Ed.D., University of Washington.

- ◆*ANGELO ANASTASIO (1955).....Associate Professor of Anthropology and Sociology
A.A., Boston University; M.A., Ph.D., University of Chicago.
- *DWIGHT ANDRUS (1961).....Lecturer in Education
B.A., B.A. in Ed., M.Ed., Western Washington State College.
- ◆*M. CHAPPELLE ARNETT (1960).....Instructor of Physical Education
B.S., Centenary College; M.S. in Ed., Purdue University.
- ◆*EDWARD J. ARNTZEN (1924).....Professor of History
B.A., University of Washington; M.A., Columbia University; University of Washington; Columbia University.
- ◆*P. H. ATTEBERRY (1954).....Professor of Industrial Arts
B.S., M.S., Kansas State; Ed.D., University of Missouri; Pittsburg.
- ◆*GERALD D. BAILEY (1960).....Instructor of Industrial Arts
B.A. in Ed., M.Ed., Central Washington State College.
- ◆*DECLAN BARRON (1946).....Associate Professor of Biological Science
B.A. in Ed., Western Washington State College; M.A., Yale University; Stanford University.
- *MARY BAUGHN (1961).....Instructor of Home Economics
B.S., B.A. In Ed., M.A., University of Alberta.
- ◆*WILLIAM BENDER (1960).....Professor of Physics
B.A., M.S., University of Colorado; Ph.D., Yale University.
- ◆*MARION BESSERMAN (1952).....Associate Professor of Chemistry
B.S., University of Washington; M.S., Purdue University; Ph.D., University of Washington.
- *MICHAEL G. BILLINGS (1961).....Instructor of Mathematics
B.A., M.A., Montana State University.
- ◆*DON F. BLOOD (1951).....Associate Professor of Psychology
B.A. in Ed., Central Washington State College; M.A., Ph.D., State University of Iowa.
- ◆*BERNARD L. BOYLAN (1956).....Associate Professor of History
B.A., M.A., University of Washington; Ph.D., University of Missouri.

- ◆*LAURENCE W. BREWSTER (1948).....Associate Professor of Speech
B.A., Yankton College; M.A., Ph.D., State University of Iowa.
- ◆*CLARK C. BROWN (1956).....Lecturer in Education
B.A. in Ed., Western Washington State College; M.A., Columbia University.
- ◆*DON W. BROWN (1954).....Associate Professor of Education
B.S., M.A., University of Nebraska; Ed.D., Colorado State College.
- ◆*WILLIAM C. BUDD (1953).....Associate Professor of Psychology
and Acting Director of Psychological Services and Research
B.A., Hamline University; B.S., M.A., Ph.D., University of Minnesota.
- ◆*DOROTHY BUTTON (1955).....Assistant Professor of Education;
Assistant Registrar
B.A., University of California; University of Washington; Ed.M., Western Wash-
ington State College.
- ◆*DON F. BUTTRICK (1959).....Assistant Professor of History
B.A., M.A., Ph.D., University of California.
- ◆ DONALD J. CALL (195B)†.....Instructor of Sociology
B.A., M.A., University of Oregon.
- ◆*SENE R. CARLILE (1947)‡.....Professor of Speech
B.A., B.S., Fort Hays Kansas State College; M.A., Colorado State College; Ph.D.,
University of Wisconsin.
- ◆*KATHERINE M. CARROLL (195B).....Associate Professor of Education
B.S., Salem Teachers College; Ed.M., Ed.D., Boston University; Harvard University.
- *RALPH CARTER (1961).....Assistant Professor of Speech
A.B., Washington and Lee University; M.A., University of Kentucky.
- ◆*KATHERINE M. CASANOVA (1932).....Associate Professor of Education
B.S., M.A., Teachers College; Columbia University; Stanford University; University
of Washington.
- ◆*MOYLE F. CEDERSTROM (1935).....Professor of English
B.A., M.A., University of Minnesota; Ph.D., University of Washington.

†On leave, 1961-1962.

‡On leave, Fall and Winter Quarters, 1961-1962.

- ◆*EDNA CHANNER (1940).....Associate Professor of Industrial Arts
B.A., University of Washington; M.A., University of Iowa; Oregon State College,
Claremont.
- *DORIS C. CHING (1961).....Assistant Professor of Education
Ed.B., University of Hawaii; Ed.M., Ed.D., Harvard University.
- ◆*ROBERT A. CHRISTMAN (1960).....Associate Professor of Geology
B.S., M.S., University of Michigan; Ph.D., Princeton University.
- ◆*RAYMOND A. CISZEK (1948).....Associate Professor of Physical
Education
B.S., M.S., University of Illinois; Ed.D., Boston University.
- ◆*EDWIN R. CLAPP (1960).....Professor of English
A.B., Stanford University; M.A., Ph.D., Harvard University.
- *NITA K. CLOTHIER (1961).....Acting Instructor of English
B.A., B.A. in Ed., Western Washington State College.
- ◆*GERALD COHEN (1959).....Assistant Professor of English and French
B.A., Brooklyn College; Ph.D., University of Washington.
- ◆*A. GRAHAM COLLIER (1960).....Associate Professor of Art
N.R.D., (London); M. Coll. H., University of London; F.I.A.L., Switzerland; Slade
School of Fine Art, University of London.
- ◆*HOWARD J. CRITCHFIELD (1951).....Professor of Geography
B.A., M.A., Ph.D., University of Washington.
- ◆*FRANK L. D'ANDREA (1945).....Professor of Music
B.S., M.A., New College, Teachers College, Columbia University; Royal Academy
of Music; and Mary Datchlor School, London, England; Ed.D., Teachers College,
Columbia University.
- ◆ FRED M. DeBRULER (1959).....Associate Professor of Psychology
B.A., Western Washington State College; M.A., Teachers College, Columbia Uni-
versity; University of Texas; Stanford University.
- ◆*WILLIAM J. DITTRICH (1951).....Assistant Professor of Physics
B.S., M.S., University of Washington.
- ◆*DON J. EASTERBROOK (1959).....Instructor of Geology
B.S., M.S., University of Washington.

- ◆*LOWELL P. EDDY (1957).....Assistant Professor of Chemistry
B.S., M.S., Oregon State College; Ph.D., Purdue University.
- ◆*GERALD V. EGERER (1960).....Assistant Professor of Economics
B.Sc. (Econ.) Hons., University of London; D. en Droit, University of Lyon.
- *PETER J. ELICH (1961).....Assistant Professor of Psychology
B.A., University of Washington; M.Ed., Western Washington State College.
University of Oregon.
- ◆*WILLIAM E. ELMENDORF (1958).....Instructor of Russian and Spanish
B.S., University of Puget Sound; M.A., University of Washington.
- *BARBARA C. ETZEL (1961).....Associate Professor of Psychology
A.A., Stephens College; B.S., Denison University; M.S., University of Miami; Ph.D.,
State University of Iowa.
- ◆*FRANCIS D. EVENHUIS (1960).....Assistant Professor of English
B.A., Western Michigan College; M.A., Ph.D., State University of Iowa.
- ◆*EUNICE DAY FABER (1959).....Associate Professor of French and Spanish
B.A., Howard University; M.A., Catholic University of America.
- ◆*DONALD A. FERRIS (1947).....Associate Professor of Education;
Registrar
B.A., M.A., University of Washington; Teachers College, Columbia University; Col-
orado State College.
- ◆ MARK W. FLANDERS (1952)†.....Assistant Professor of Speech
B.A., Iowa State Teachers College; M.A., State University of Iowa.
- ◆*CHARLES J. FLORA (1957).....Associate Professor of Zoology
B.A., Purdue University; M. Ed., Ed.D., University of Florida.
- ◆ IONE A. FOSS (1957)†.....Instructor of Art
B.S., M.A.A., Montana State College; University of Washington.
- ◆ MAURICE F. FREEHILL (1948)†.....Professor of Psychology;
Director of Psychological Services and Research
B.Ed., University of Alberta; M.A., Ed.D., Stanford University.
- *ADA L. GAMBRELL (1961).....Assistant Professor of Business Education
B.S., Winthrop College; M.B.A., University of Denver.

†Leave of Absence, 1961-1962.

- ◆*HARVEY M. GELDER (1948).....Associate Professor of Mathematics
B.A., Colorado State College; M.A., University of Missouri; University of Washington; University of Chicago.
- ◆*GEORGE GERHARD (1959).....Instructor of Psychology
B.S., M.S., University of Oregon.
- ◆*JEROME GLASS (1955).....Assistant Professor of Music
B.S., New York University; M. Mus., University of Southern California.
- ◆*HAROLD A. GOLTZ (1957).....Assistant Professor of Education and
Assistant to the President
B.A., Macalester College; M.A., University of Minnesota.
- *MARCIA E. GRABFELDER (1961).....Lecturer in Education
B.A., University of Illinois; San Diego State College; University of California; University of Florida.
- ◆*ELIZABETH GREGORY (1948).....Lecturer in Education
B.A. in Ed., Western Washington State College.
- ◆*MONICA C. GUTCHOW (1960).....Assistant Professor of Physical
Education
B.S., University of Oregon; M.F.A., University of North Carolina; Texas Women's University.
- ◆*PAUL W. HAGENSICK (1960).....Assistant Professor of Philosophy
B.A., M.A., Ph.D., University of Wisconsin.
- ◆*BYRON E. HAGLUND (1956).....Assistant Professor of Economics
B.B.A., M.A., University of Minnesota; C.P.A., Washington, D.C., and State of Washington.
- ◆ IRWIN A. HAMMER (1945)†.....Professor of Education
University of Toulouse, Toulouse, France; B.A., Park College; M.A., University of Colorado; University of Minnesota; University of Chicago; Ed.D., Teachers College, Columbia University.
- *JAMES D. HANNA (1961).....Instructor of Library Science
B.A. in Ed., Western Washington State College; McGill University; University of Washington.
- ◆ J. VIGGO HANSEN (1959).....Instructor of English
B.A., Oberlin College; M.A. University of Colorado.
- ◆*FRANCES F. HANSON (1960).....Associate Professor of Psychology
B.S., Moorhead State College; M.A., University of Minnesota.

†Retired June, 1961.

- ◆*CHARLES W. HARWOOD (1953).....Associate Professor of Psychology
B.S., M.S., Ph.D., University of Washington.
- JOHN C. HAUSER (1957)‡.....Instructor of Industrial Arts
B.A., Iowa State Teachers College; M.A., Colorado State College.
- ◆ RAYMOND F. HAWK (1945)†.....Professor of Education; Director of
Student Teaching
B.A., DePauw University; M.A., Stanford University; Ph.D., Washington State
University.
- ◆*HERBERT R. HEARSEY (1941).....Associate Professor of Library Science;
Reference Librarian
B.A., Ed.M., Tufts College; B.S. in Library Science; M.A., in Library Science, Uni-
versity of Illinois.
- ◆*EARL R. HEPLER (1957).....Assistant Professor of Industrial Arts
B.S., M.S., Kansas State Teachers College; Ed.D., University of Missouri.
- ◆*PAUL E. HERBOLD (1952).....Associate Professor of Speech
B.A. in Ed., Western Washington State College; M.A., University of Washington;
Ph.D., University of Minnesota.
- ◆*MILDRED HERRICK (1945).....Associate Professor of Library Science;
Librarian
B.A., Michigan State Normal College; B.A. in L.S., M.A. in L.S., University of Michi-
gan.
- ◆*ARTHUR HICKS (1933)Professor of English
B.A., M.A., University of Oregon; Ph.D., Stanford University.
- ◆*JAMES L. HILDEBRAND (1952).....Associate Professor of Mathematics
B.A., M.A., North Texas State University; University of Iowa; Columbia University;
University of Washington.
- ◆*HARLEY E. HILLER (1957).....Assistant Professor of History
B.A., Westmar College; M.A., University of Minnesota.
- ◆*EVELYN M. HINDS (1960).....Instructor of Music
B.A. in Ed., M.Ed., Western Washington State College.
- ◆*MABEL HODGES (1957).....Assistant Professor of Education
B.E., Western Illinois State University; M.A., Washington State University.

 †Retired, June, 1961.

‡On Leave, 1960-1961, 1961-1962.

- ◇ LAUREL E. HOLCOMB (1960).....Assistant Professor of Library Science
and Catalogue Librarian
B.A., University of California at Los Angeles; M.S., University of Illinois.
- ◇*ANNIS J. HOVDE (1948).....Assistant Professor of English
B.A., M.A., University of Washington; Stanford University.
- ◇*JACKSON M. HUBBARD (1955).....Instructor of Physical Education
B.A. in Ed., Ed.M., Central Washington State College.
- ◇*LESLIE HUNT (1942).....Assistant Professor of English
B.A. in Ed., Western Washington State College; M.A., Teachers College, Columbia
University; University of Washington; University of Michigan.
- ◇*ALICE I. G. IMHOFF (1957).....Instructor of Art
University of Nebraska; B.S., Oregon College of Education; M.A., Columbia Uni-
versity; University of Washington.
- ◇ MARY K. IRWIN (1960).....Instructor of Education
B.A. in Ed., Western Washington State College.
- ◇*ROBERT E. JACOBS (1960).....Instructor of Physical Education
B.S., Washington State University; M.Ed., Western Washington State College.
- ◇*JAMES L. JARRETT (1959).....Professor of Philosophy and
President of the College
B.S., M.S., University of Utah; Ph.D., University of Michigan.
- ◇*VIVIAN JOHNSON (1941).....Associate Professor of Education
B.A., M.A., University of Washington; Teachers College, Columbia University.
- ◇*ELVET G. JONES (1957).....Assistant Professor of Psychology
B.A., M.A., University of British Columbia; Ph.D., University of Minnesota.
- ◇*HENRY W. JONES (1958).....Assistant Professor of Education
B.S., North Dakota Agricultural College; M.S., University of Wisconsin; Ed.D., Uni-
versity of California, Los Angeles.
- ◇ JAMES F. JONES (1960).....Instructor of Music
B.Me., Florida State University; M.A., Ohio State University.
- *JOHN A. JONES (1961).....Instructor of Speech
Western Washington State College; B.A., M.A., University of Washington.
- ◇*HALLDOR C. KARASON (1949).....Associate Professor of Philosophy
B.A. in Ed., Western Washington State College; M.A., Ph.D., University of Wash-
ington.

- ◆*RUTH KELSEY (1948).....Associate Professor of Art
B.A., Washington State University; University of Oregon; M.A., University of California, Berkeley; University of Washington.
- ◆*EMELIA LOUISE KILBY (1956) Associate Professor of Physical Education
B.S., The Mary Washington College of the University of Virginia; M.A., New York University; Ph.D., University of Washington.
- ◆*ELEANOR KING (1953).....Associate Professor of French and German
B.A., University of British Columbia; M.A., University of Toronto; University of Munich, Germany; Ph.D., University of Wisconsin.
- ◆*FLORENCE J. KIRKPATRICK (1925).....Associate Professor of
Biological Science
B.S., University of Washington; M.A., Mills College; University of California.
- ◆ CORINNE F. KLANN (1954).....Assistant Professor of Education
B.A., Western Washington State College; M.A., Teachers College, Columbia University.
- ◆ FRED W. KNAPMAN (1942)†.....Professor of Chemistry
B.A., Western Washington State College; M.Sc., University of Washington; Ed.D., Teachers College, Columbia University; Post-doctoral, University of Washington.
- *GERALD F. KRAFT (1961).....Assistant Professor of Zoology
B.A., San Jose State College; M.S., Washington State University.
- ◆*MERLE S. KUDER (1937).....Professor of Education and of Psychology
Dean of Students and Coordinator of Instruction
B.A., University of Arizona; M.A., Ph.D., Teachers College, Columbia University.
- ◆*ARNOLD M. LAHTI (1955).....Associate Professor of Physics
B.A., B.A. in Ed., Western State College; Ph.D., University of Minnesota.
- ◆ GEORGE LAMB (1958)†.....Instructor of Education
B.A., Macalester College; M.A., University of Washington.
- ◆*CHARLES F. LAPPENBUSCH (1933).....Associate Professor of
Physical Education and Director of Athletics
B.S., M.A., University of Washington; Whitworth College, Boston University, University of Washington.
- ◆*EDITH B. LARRABEE (1957).....Instructor of Home Economics
B.S., East Texas State College; M.A., Colorado State College.

†Leave of Absence, 1961-1962.

- ◆*GOLDEN L. LARSEN (1956).....Lecturer in English
B.S., M.A., Utah State University; University of Washington.
- ◆*W. ROBERT LAWYER (1960).....Assistant Professor of English
B.A., University of Washington.
- *RICHARD H. LINDSAY (1961).....Assistant Professor of Physics
B.S., University of Portland; M.S., Stanford University.
- ◆*FREDERICK M. LISTER (1954).....Assistant Professor of Mathematics
B.S. Tufts University; M.A., University of Michigan.
- ◆*JAMES R. LOUNSBERRY (1959).....Associate Professor of Physical
Education
B.A., Central Washington State College; M.S., University of Washington.
- ◆ KENNETH C. LYMAN (1960).....Assistant Professor of Speech
B.S., Rockhurst College; M.A., University of Denver; Ph.D., University of Wisconsin.
- *THOMAS MacINTYRE (1961).....Instructor of English
M.A., Trinity College, Dublin.
- *RICHARD C. McALLISTER (1961).....Assistant Professor of Economics
B.A., M.A., University of Washington; University of Florida; C.P.A., State of Washington.
- *JAMES G. McAREE (1961).....Assistant Professor of History
B.A., M.A., University of Southern California; Ph.D., University of Minnesota;
University of Florence; University of London.
- ◆*CLYDE W. McDONALD (1946).....Associate Professor of Physical
Education and Dean of Men
B.A., M.S., University of Washington.
- ◆*DAVID McDONALD (1948).....Associate Professor of Education and
Director of Audio-Visual Center
B.A., Bethany College; M.A., University of Southern California; Ed.D., University of Oregon.
- ◆*JAMES E. McFARLAND (1960).....Assistant Professor of Mathematics
B.S., Denison University; M.S., Ph.D., Oregon State College.
- ◆*RUBY D. McINNES (1948).....Associate Professor of Education
B.A., University of Washington; M.A., Teachers College, Columbia University.

- ◆*DAVID F. MARSH (1957).....Assistant Professor of Art
B.A., Central Washington State College; M.S., University of Oregon; Fresno State College; University of Washington.
- ◆*JAMES S. MARTIN (1955).....Associate Professor of Botany
B.S., M.S., Ph.D., University of Washington.
- ◆*EVELYN P. MASON (1959).....Lecturer in Psychology
B.A., Mills College; M.A., Ph.D., Washington University, St. Louis, Missouri.
- ◆*MIRIAM S. MATHES (1934).....Associate Professor of Library Science
B.A., New York College for Teachers, Albany; M.A., Teachers College, Columbia University; B.S., M.S., School of Library Service, Columbia University.
- ◆*ALLAN E. MATHIESON (1960).....Instructor of English
B.A., B.A. in Ed., M.Ed., Western Washington State College.
- ◆*ERWIN S. MAYER (1953).....Associate Professor of Economics
B.A., Hunter College; Ph.D., University of Washington.
- ◆*D. PETER MAZUR (1960).....Assistant Professor of Sociology
B.A., Stetson University; M.A., University of Colorado; Ph.D., University of Washington.
- ◆*SYDNEY MENDEL (1959).....Assistant Professor of English
B.A., M.A., Cambridge University; University of California.
- ◆*CHARLES E. MILLER (1959).....Assistant Professor of Education
B.S. in Ed., Eastern Oregon College; B.S., M.Ed., University of Oregon; Teachers College, Columbia University.
- ◆*ELBERT E. MILLER (1957).....Associate Professor of Geography
B.A., Central Washington State College; University of Nebraska; M.A., Ph.D., University of Washington.
- ◆*HOWARD E. MITCHELL (1955).....Assistant Professor of Economics
B.A., Whitworth College; M.A., Ph.D., University of Washington.
- ◆*MERIBETH J. MITCHELL (1957).....Associate Professor of Biology
B.S., M.S., Northwestern University; University of Minnesota; Ph.D., Washington State University.

- ◆*ROBERT L. MONAHAN (1955).....Associate Professor of Geography
B.A., University of Washington; M.A., University of Michigan; Ph.D., McGill University.
- *DEBNATH MOOKHERJEE (1961).....Assistant Professor of Geography
B.Sc., M.Sc., University of Calcutta; University of Florida.
- ◆*KATHERINE KARNES MORSE (1960).....Guest Lecturer in Music
Mus.B., Lawrence College; Oshkosh State Teachers' College; Columbia University; Eastman School of Music; M.A., Claremont Graduate School.
- ◆*GEORGE M. MULDROW (1960).....Assistant Professor of English
B.J., M.A., University of Missouri; Ph.D., Stanford University.
- ◆*ROY I. MUMME (1960).....Assistant Professor of Education
A.B., A.M., Bob Jones University; Ed.M., University of North Carolina; University of Florida.
- ◆*KEITH A. MURRAY (1946).....Professor of History
B.A., Whitworth College; M.A., Ph.D., University of Washington.
- ◆ FRANK W. NEUBER (1957)†.....Assistant Professor of Government
B.A., Beloit College; M.A., University of Illinois; Ph.D., University of Oregon.
- ◆*EDWARD F. NEUZIL (1959).....Assistant Professor of Chemistry
B.S., North Dakota State College; M.S., Purdue University; Ph.D., University of Washington.
- ◆*SYNVA K. NICOL (1937).....Assistant Professor of Education
B.A., Fresno State College; M.A., Teachers College, Columbia University, University of California.
- *WILLIAM A. NILSSON (1961).....Assistant Professor of Chemistry
B.S., University of Illinois; University of California.
- *FRANK ANTHONY NUGENT (1961).....Associate Professor of Psychology
B.S., New Jersey State Teachers' College; M.S., Columbia University; Ph.D., University of California.
- *JAMES H. O'BRIEN (1946)‡.....Associate Professor of English
B.A., Seattle University; M.A., University of Washington; University College; Dublin Ireland; Ph.D., University of Washington.

‡Leave of Absence, 1960-1961. †Leave of Absence, 1961-1962.

- ◆*EVELYN ODOM (1936).....Associate Professor of English
B.A., Winthrop College; M.A., Teachers College, Columbia University; University of Washington, University of Minnesota.
- *FRED A. OLSEN (1961).....Assistant Professor of Industrial Arts
B.A., University of Washington; M.S., Stout State College, Wisconsin; Ohio State University.
- ◆*WILLIAM J. O'NEIL (1950).....Assistant Professor of Education and
Admissions Officer
B.A., In Ed., Ed.M., Western Washington State College; Washington State University.
- ◆*MARIE B. PABST (1948).....Associate Professor of Geology;
Curator of the Science Museum
B.S., University of Minnesota; University of Chicago; Northwestern University; M.A., University of California.
- ◆*HAROLD O. PALMER (1956)....Associate Professor of Business Education
B.A., College of Emporia, Kansas; Ed.M., University of Oregon; Ed.D., Oregon State College.
- *DICK S. PAYNE (1961).....Assistant Professor of Government
A.B., M.P.A., Ph.D., Harvard University.
- ◆*MIRIAM L. PECK (1946).....Associate Professor of Art
B.A., M.A., M.F.A., University of Washington; Cranbrook Academy of Art.
- ◆*PATRICK R. PENLAND (1960).....Assistant Professor of Library Science
and Director of Extension Services
B.A., University of British Columbia; B.L.S., McGill University; A.M.L.S., Ph.D., University of Michigan.
- *JOSEPH PESSÉAT (1961).....Acting Instructor of French
License d' Anglais.
- ◆*RUTH E. PLATT (1927).....Associate Professor of Zoology
B.S., M.S., University of Washington; University of California.
- ◆*HAZEL JEAN PLYMPTON (1926).....Associate Professor of Art
Ph.B., University of Chicago; M.A., Teachers College, Columbia University; Reed College; Portland School of Art.
- ◆*LORRAINE POWERS (1941).....Associate Professor of Mathematics
and Dean of Women
B.A., University of Wisconsin; M.A., State University of Iowa; University of Washington.

- *WILLIAM PROWELLER (1961).....Assistant Professor of Art
B.S., M.A., New York University; University of California.
- ◆*FRANK N. PUNCHES (1948).....Associate Professor of Education
B.A., University of Washington; M.A., Washington State University.
- ◆*AUGUST RADKE (1953).....Associate Professor of History
B.A., M.A., Ph.D., University of Washington.
- ◆*DOROTHY RAMSLAND (1949).....Associate Professor of Home Economics
Luther College; B.S., University of Wisconsin; M.S., Michigan State University.
- ◆*BERNARD W. REGIER (1945).....Associate Professor of Music
B.S.M., Kansas State Teachers College, Emporia; Northwestern University; M.Mus.,
University of Michigan; University of Washington; University of Southern California.
- ◆*G. DALE REUBART (1960).....Assistant Professor of Music
A.B., University of Kansas City; M.M., University of Southern California.
- ◆*RICHARD C. REYNOLDS (1960).....Instructor of Education
and Director of Student Activities
B.S., M.Ed., University of Oregon.
- ◆*CHARLES M. RICE (1941).....Associate Professor of Industrial Arts
B.F.A., M.A., Washington State University; University of Washington; University of
Oregon; Carnegie A.I.A. Art Sessions in 1934 and 1935; Ed.D., Oregon State
College.
- ◆*SHELDON T. RIO (1959).....Associate Professor of Mathematics
B.A., Westmar College; M.A., Montana State University; Ph.D., Oregon State
College.
- ◆*WALTER L. ROBINSON (1960).....Assistant Professor of German
B.A., M.A., Ph.D., University of Texas.
- *ESTHER ROSS (1961).....Lecturer in Education
B.A. in Ed., Western Washington State College.
- ◆*J. ALAN ROSS (1942).....Professor of Education and Psychology;
Dean of Summer Session; Director of Graduate Studies
B.A. in Ed., Western Washington State College; University of Chicago; M. A.,
Ph.D., Yale University.
- *MARJORIE RYAN (1961).....Assistant Professor of English
A.B., M.A., University of Washington; Ph.D., University of Minnesota.

- ◇ BEATRICE E. SABOURIN (1960)†.....Assistant Professor of Education
A.B., Colorado State College of Education; Ed.M., Western Washington State College.
- ◇ WALTER J. SANDERS (1959).....Assistant Professor of Mathematics
B.A., M.A., University of Washington; M.S., University of Illinois.
- ◇*DAVID B. SCHAUB (1953)†.....Associate Professor of Music
B.A., Mus.B., Lawrence College; M.A., Harvard University; Ph.D., University of California.
- ◇*ERHART A. SCHINSKE (1957).....Associate Professor of Speech
B.A., Hamline University; M.A., Ph.D., University of Minnesota.
- *MARY ANNE SCHUETTE (1961).....Instructor of Education
B.S., University of Minnesota.
- ◇*CARL U. SCHULER (1959).....Associate Professor of History
B.S., M.A., Ph.D., University of Wisconsin.
- ◇*RAY A. SCHWALM (1949).....Associate Professor of Industrial Arts
B.S., State Teachers College, Millersville, Pennsylvania; M.S., Ed.D., Oregon State College.
- ◇*DONALD J. SCHWEMMIN (1960).....Assistant Professor of Biology
B.S., M.S., Ph.D., University of Michigan.
- ◇*WILLIAM H. O. SCOTT (1960).....Assistant Professor of Library Science
and Circulation Librarian
A.B., A.M., A.M.L.S., University of Michigan.
- *JEAN-CHARLES SEIGNEURET (1961).....Instructor of French
B.A., University of British Columbia; M.A., University of California at Los Angeles.
- ◇*VERNON C. SERL (1959).....Instructor of Sociology-Anthropology
B.A., University of British Columbia.
- ◇ JEAN SHEPARD (1960).....Lecturer in Education
B.A. in Ed., Washington State University; M.Ed., Teachers College, Columbia University.
- ◇*EDWARD C. SIMMEL (1960).....Assistant Professor of Psychology
A.B., University of California; Ph.D., Washington State University.

†Leave of Absence, 1961-1962.

- ◆*ROBERT BRUCE SIMPSON (1960).....Associate Professor of Education
and Principal of the Campus School
A.B., M.A., Stanford University; Ed.D., Teachers College, Columbia University.
- ◆*BEARNICE SKEEN (1947).....Professor of Education
Special and Remedial Education
B.S., M.S., University of Oregon; Ed.M., Washington State University.
- *JOHN H. SNEDEKER (1961).....Professor of Education
B.S., M.A., New York University; Ed.D., Indiana University.
- *JOHN W. SPALDING (1961).....Assistant Professor of Speech
B.A., Northwestern University; M.A., Ph.D., University of Michigan.
- ◆*PHILIP T. SPAULDING (1960).....Instructor of Sociology
B.A., University of Alaska; M.A., University of Oregon; University of Washington.
- *THADDEUS H. SPRATLEN (1961).....Instructor of Economics
B.S., M.A., Ohio State University.
- ◆*THOMAS E. STEVENS (1958).....Assistant Professor of Education
B.A., B.Ed., Washington State University.
- ◆ HARRY E. STIVER, JR. (1960).....Assistant Professor of Speech
A.B., Hastings College; M.A., University of Nebraska; Ph.D., University of Illinois;
Stanford University.
- *LEO F. STORM (1961).....Assistant Professor of English
B.A., University of Washington; M.A., Edinburgh University; Ph.D., University of
Washington.
- ◆*LEONA M. SUNDQUIST (1923).....Professor of Biological Science
B.A., M.S., University of Washington; Teachers College, Columbia University.
- ◆*PAUL H. SUNSET (1960).....Instructor of Chemistry
B.A., Pacific Lutheran University; M.S., Washington State University.
- ◆ DONALD C. SWEDMARK (1958)†.....Instructor of Economics
B.S., Bemidji State College; M.A., University of North Dakota.
- *HERBERT C. TAYLOR, JR. (1951)‡.....Associate Professor of Anthropology
B.A., M.A., University of Texas; Ph.D., University of Chicago.

†Leave of Absence, 1961-1962. ‡Leave of Absence, 1960-1961.

- ◇ VIRGINIA F. TEMPLETON (1957).....Assistant Professor
of Business Education
B.S., Hillyer College; M.S., University of Connecticut; San Francisco State College;
University of California, Los Angeles; University of California, Berkeley; George
Washington University; University of North Dakota.
- ◇*PHILIP C. THAYER (1959).....Instructor of Physics
B.S., Lewis and Clark College; M.S., University of Minnesota; University of Oregon.
- ◇*RALPH H. THOMPSON (1950).....Professor of Education
B.A., Dickinson College; M.A., University of Delaware; Ed.D., University of Illinois.
- *WILLIAM TOMARAS (1961).....Assistant Professor of Men's
Physical Education
B.A., M.S., University of Illinois; Ed.D., University of Oregon.
- *MARTIN TUCKER (1961).....Instructor of Art
B.S., State University of New York; M.S., M.F.A., University of Wisconsin.
- ◇*HELEN A. TURCK (1960).....Instructor of Home Economics
B.S., College of St. Scholastica; M.A., University of Michigan.
- ◇*ALBERT VAN AVER (1939).....Professor of English
B.A., Reed College; M.A., Claremont College; Fellow, State University of Iowa;
University of Washington; Ph.D., University of Cincinnati.
- *STEWART VAN WINGERDEN (1951)†..Assistant Professor of Education
B.A. in Ed., Western Washington State College; M.A., Colorado State College.
- *PAUL C. WADLEIGH (1961).....Assistant Professor of Speech
A.B., M.S., Indiana University.
- *PAUL R. WALDO (1961).....Instructor of Speech
B.A., Portland State College; M.A., University of Michigan.
- ◇*DON C. WALTER (1947).....Associate Professor of Music
Iowa State Teachers College; B.A., Wartburg College; M.A., Colorado State Col-
lege of Education; Ed.D., University of Oregon.
- ◇*MARY W. WATROUS (1957).....Associate Professor of Education
A.B., University of Nebraska; M.A., Gonzaga University; Ed.D., University of
Washington; Southampton University.

†On leave, 1960-1961.

- *WALTER F. WEGNER (1961).....Instructor of Art
B.S., University of Wisconsin; M.F.A., State University of Iowa.
- ◇*RUTH WEYTHMAN (1924).....Associate Professor of Physical Education
B.S., University of Washington; M.A., Teachers College, Columbia University;
University of California, Berkeley; University of Tennessee.
- ◇*RICHARD F. W. WHITEMORE (1957).....Assistant Professor of History
B.A., Harvard; M.A., Columbia University.
- *MAURICE C. WILLIAMS (1961).....Associate Professor of Education
A.B., University of Denver; M.Ed., Ed.D., University of California.
- ◇*HAROLD W. WINSLOW (1960).....Instructor of Education
B.S., B.Ed., M.Ed., Washington State University.
- ◇*GEORGE E. WITTER (1955).....Assistant Professor of Mathematics
B.A., M.A., Miami University; University of Washington; University of Michigan;
University of California at Los Angeles.
- PAUL D. WOODRING (1939)†.....Professor of Psychology
B.S. in Education, Bowling Green State University; M.A., Ph.D., Ohio State University;
University of Southern California; Doctor of Humane Letters, Kalamazoo College.
- ◇*MARY M. WORTHYLAKE (1960).....Assistant Professor of Education
B.A. in Ed., M.Ed., Western Washington College of Education; University of California.
- ◇ JOHN J. WUEST (1960).....Associate Professor of Government
B.S., M.S., University of Southern California; Ph.D., University of California at Los Angeles.
- *RAYMOND A. YOUNG (1961).....Assistant Professor of Spanish
B.A., University of British Columbia; M.Lib., University of Washington; Ph.D., University of Madrid.

†Leave of Absence, 1960-1961, 1961-1962.

Affiliated Teachers of Music

EDNA BIANCHI.....Voice

Graduate of the Malojoli School of Bel Canto, Italy; Artist-teacher in New York for fifteen years.

KENNETH A. CLOUD.....Trombone, Trumpet

B.A., Mus.Ed., University of Washington. First Trombone, Seattle Symphony since 1939; Trombone instructor of the University of Washington and Seattle Pacific College.

ARTHUR THAL.....Violin

Study under Felix Winternitz, New England Conservatory of Music, Boston; and under Scott Willits, American Conservatory, Chicago; special study with members of the Budapest String Quartet.

NONIE STONEHOUSE.....Wind Instruments

B.M.E., Northwestern University.



The College

The College

Western Washington State College is an integral part of the public school system of the State of Washington, which encompasses elementary and secondary schools, three state colleges, and two universities. The College is governed by a board of trustees appointed by the Governor and confirmed by the Senate.

The College is located in Bellingham, a city of 35,000, geographically situated on the seaboard, eighty-seven miles north of Seattle and twenty-three miles from the Canadian border.

History

The College was originally authorized as a State Normal School by an act of the State Legislature in the year 1893. It was not, however, until the fall of 1899 that the school was formally opened with a faculty of six members.

As a State Normal School the College's curricular program was for several decades directed to the single objective of preparing teachers for the common schools of the state. As higher standards for teacher certification came into being the program changed in scope and content. In 1920 a full four-year program was offered for the first time. The right to grant a baccalaureate degree was authorized in 1933, and in 1937 the name of the school was changed to Western Washington College of Education.

After the College became a degree granting institution with the need to meet standards for accreditation, the program of offerings in the various academic fields was greatly expanded. This led to an increasing enrollment of students with educational purposes other than teacher preparation. The college was beginning to assume a multi-purpose role. This new role was recognized in 1947 when the right to grant the Bachelor of Arts Degree was authorized. At the same time the teacher education program was extended with the right to grant a graduate degree, Master of Education. In 1961 the State Legislature gave full recognition to the multi-purpose character of the College by changing the name to Western Washington State College.

Description

Accreditation

Western Washington State College is accredited by the Northwest Association of Secondary and Higher Schools and by the National Council for the Accreditation of Teacher Education. It is on the list of approved colleges and universities of the American Association of University Women.

Buildings and Facilities

The 105-acre campus is situated on Sehome Hill overlooking the City of Bellingham. The location and arrangement of the thirteen major buildings are shown on the campus map, page 2.

During the first twenty-five years in the history of the College, plant expansion consisted of a number of additions to the original single building. This entire structure, now known as "Old Main," is devoted to general classroom use and to administrative offices. A library building was added in 1928 and a physical education building with an attached swimming pool in 1936. A laboratory school, with classrooms for children in the elementary grades, was completed in 1943 to provide student teaching and observation opportunities.

The construction of buildings for more specialized use began with the Arts Building in 1950. Here are included facilities for both industrial and fine arts. The Auditorium-Music Building was finished in 1951.

The Viking Union which accommodates student government, student publications, and a wide range of student activities and social affairs, was completed in 1959. Its construction was financed by student fees.

W. W. Haggard Hall of Science became operational in the summer of 1960. In addition to laboratories and classrooms appropriate to the study of all branches of physical and biological science its special features include a museum display area, shops for constructing laboratory equipment, a seismograph, a planetarium, aquarium, roof greenhouses, and facilities for meteorological work.

The Student Cooperative Book Store, construction of which was financed by student fees, was occupied in the fall of 1960. Textbooks and other supplies of an educational or personal nature for students and faculty are made available in this student-operated campus activity.

Viking Commons, centralized dining facility, also financed through student fees, is operative for the first time in the 1961-62 academic year.

Also operative for the first time during the 1961-62 academic year is a major addition to the Physical Education Building. This new structure

houses four basketball courts, class and seminar rooms, dressing rooms, offices, and a substantial increase in spectator space.

College-Owned Residence Halls. Residence halls for women include four major dormitory structures on the campus, which house approximately 525 women. In addition, the college owned and operated Senior Hall, a residence situated about halfway between the campus and downtown Bellingham, houses 26 women. Doric Hall, which includes three floors of the Doric Bellingham Hotel in downtown Bellingham, is a temporary college-managed housing facility being used pending the construction of additional on-campus housing for women.

College-owned residences for men are located at the south end of the campus, in the Ridgeway area. Two buildings, encompassing five wings, house some 200 men students.

Buildings Under Construction. Three major buildings are under construction during the 1961-62 college year. Schedules call for completion of all three by the fall of 1962.

A new dormitory in the Ridgeway area will house 400 students.

Two wings added to the Library will more than double the floor area of the building.

A new classroom and faculty office building will provide 40 additional classrooms and offices for an expanding faculty.

Objectives

In order to relate all college endeavor to clearly defined purposes an official statement of objectives was developed by the faculty and adopted by the Board of Trustees in 1955. Minor revision was effected in 1960.

Western Washington State College has as its primary function the preparation of teachers, administrators, and supervisors for the public schools of the state. Both the bachelor's and master's degrees are granted in education. This function provides the major framework for the college objectives.

The College is authorized to grant the bachelor's degree in arts and sciences. It has in addition been designated to perform a junior college function.

In order to accomplish these functions the total college program provides planned experiences in the areas of

1. **General education;**
2. **Professional education of teachers;**
3. **Subject matter specialization.**

The aims of the general education program are:

1. To broaden and intensify the student's understanding of the most significant aspects of man's cultural heritage;
2. To train the student in the methods and tools of thought and expression;
3. To assist the student in integrating his knowledge;
4. To assist the student in developing his powers of aesthetic enjoyment and creativity;
5. To stimulate the student in formulating a philosophy of life based upon knowledge and reflection.

The aims of the teacher education program, developed upon a foundation of general education, are:

1. To develop the student's
 - a. knowledge of the subject matter and techniques appropriate to his teaching fields;
 - b. understanding of individual differences and of the processes of growth and learning in children;
 - c. understanding of the processes whereby personality is formed and maladjustments avoided;
 - d. understanding of the place of school in society and its present organization and administration;
 - e. interest in forming his own philosophy of education.
2. To provide the student, prior to provisional (four-year) certification, with the background and the opportunity to demonstrate his
 - a. skill in planning and in carrying out his ideas independently;
 - b. skill in using established methods of instruction, plus a willingness to experiment with new methods.

- c. ability to evaluate his own teaching practices;
 - d. ability to work cooperatively with children, colleagues, parents, and others in the community;
 - c. ability to discriminate between the significant and the less significant in education.
3. To provide the student, prior to standard (five-year) certification, with an opportunity
- a. to extend his knowledge of subject matter appropriate to his teaching fields;
 - b. to obtain training in techniques found lacking after one year of teaching under a provisional certificate.

Subject matter specialization should meet the needs of a person who seeks:

1. Increased depth of subject matter mastery appropriate to his teaching assignment.
2. A sound basis for pursuing further and more advanced study in a specialized field.

Program

To implement the objectives stated on the preceding pages, the College has developed an integrated program which it is constantly working to refine and improve.

Curricula

Teacher Education—Undergraduate

The four-year program of pre-service preparation for teachers has been developed in accordance with the high standards for certification in the State of Washington. A broad base of prescribed general education encompasses all major subject matter fields. This undergirds a program of courses and extensive laboratory experiences with children at both elementary and secondary levels. Adequate provision is made for specialization.

Teacher Education—Graduate

The program for standard certification in Washington requires a year of study beyond the bachelor's degree subsequent to public school

teaching experience. Hence, graduate study is an integral part of the total college program, related not only to the student's earlier preparation but to needs which have been demonstrated and plans which have been developed in the field. There is thus in the graduate program a high sensitivity to the needs of teachers. For all, the fifth or graduate year leads to a Standard Certificate. Graduate study may culminate in a Master of Education degree as well, for which there are certain special standards and requirements aimed at developing more specialized competency in a selected area of school service.

The Arts and Sciences

The Bachelor of Arts degree traditionally represents a well-rounded, truly liberal, four-year college program. In 1947, the Legislature of the State of Washington extended the opportunity for general higher education in the tax-supported colleges and universities by authorizing the state colleges to confer the B.A. degree. The College, already well staffed and equipped in the major subject matter divisions, immediately developed a program of studies and awarded its first such degree in August, 1947.

As outlined in greater detail in a later section of the catalogue, the four-year courses now available assure the degree candidate not only a broad base of general education, but ample opportunity for specialization. Students in increasing numbers are turning to the College for this type of training.

Junior College Studies

For many years the College has offered work to meet the needs of students who desire to undertake their initial college study in the more intimate atmosphere of a smaller institution. Such students in most instances anticipate further work at the professional schools or universities in such fields as engineering, business administration, journalism, home economics, and the like. Because of the rapidly growing demand for lower division courses in such areas, the College has developed and carefully defined a number of one- and two-year programs leading to advanced standing in other institutions. These offerings are organized under the Junior College Division of Studies.

The Honors Program

The inauguration of an Honors Program in the fall of 1960 provides a challenging opportunity for the student of high academic ability to more nearly realize his potential.

Those selected for honors study participate in much of the general education program required of all degree candidates, particularly the

courses in General Education, but are responsible to the Honors Board for the precise determination of their programs.

Students in this program participate each quarter in a colloquium devoted to a broad topic in which primary emphasis is placed on ideas for their own sake. Each honors student is assigned to a tutor to whom he presents papers for subsequent discussion and with whom he confers regularly.

Those interested in more details concerning the Honors Program should write to the Chairman of the Honors Board.

Personnel Services and Student Affairs

The College recognizes as a basic condition for its entire program, the fact of individual differences. It therefore accepts responsibility for (a) guiding the student toward the formulation of educational and career plans that are realistic in the light of his abilities; (b) assisting the student to develop techniques of self-evaluation and personal problem solving that will help him make sound decisions for himself. Orientation, testing, and counseling are among the means used to achieve these ends.

All aspects of student life are recognized as significant in relation to the achievement of college objectives. Group living, student government, social life, athletics and intramural sports, music, art, drama, club activities—each has a recognized place in the total program. Effective stimulation and organization for these out-of-class phases of the college program are provided by coordinated student personnel services.

Concert-Lecture Series

The College brings to the campus distinguished performers, scholars, and lecturers from the fields of drama, dance, music, letters, science, travel, and world affairs. The programs are open to all students and faculty. The services of these performers may be further utilized by various departments in special forums or workshops.

Civic Music Series

The College, through the Concert-Lecture Series, makes it possible for interested students to attend events scheduled by the Civic Music Association of Bellingham. Each year this series includes programs by soloists and groups of international renown.



The Student

Admission

General Provisions

Health

A thorough health examination is required of all students prior to admission. This examination forms a basis for the work of the Health Service in maintaining the health of each student and in helping him to overcome physical defects. The College supplies each applicant with a standard form for recording medical history and examination data. Presentation of this form, fully executed by a licensed physician, based on an examination made within 90 days satisfactorily meets this requirement. The adequacy of the examination and thoroughness of the report must meet college standards.

The protection of immunization for smallpox, diphtheria, scarlet fever, and typhoid fever, is strongly urged for all entering students. A requirement of immunization, at student expense, may be instituted at any time at the discretion of the Health Service.

Entrance Tests

All entering freshmen are required to take the Pre-College Differential Guidance Tests prior to formal admission. This is a comprehensive battery made conveniently available to high school students in Washington during the second semester of their senior year. All other freshmen applicants for admission take these tests on campus immediately prior to the opening of the fall quarter. The cost of administering, scoring, and interpreting these tests (\$5.00) is borne by the student.

The pre-entrance tests are for purposes of classification in scheduling and for counseling. Scores have no bearing on admission.

All transfer students are required to take an academic aptitude test and an English qualifying test at the time of entrance. Those who expect to enroll in Mathematics 151 or 101 in order to complete the general education requirement in mathematics must take a qualifying test.

Any student failing to take tests as initially scheduled is required to pay an additional service charge of \$3.00 for a specially arranged test.

Special students — those enrolling for less than seven credits— may, at their option, defer the tests until such time as they may register as regular students.

Deficiencies in English and Mathematics

Those who fail to meet minimum standards on the tests in English and/or mathematics must eliminate the deficiency as soon as possible, in any case during the first three quarters of attendance. This may be done by (a) independent study followed by a retest, or by (b) passing a non-credit course (English 3 or Mathematics 3).

No student may enroll for a fourth quarter without meeting college standards in these fields.

Character

The College reserves the right to require that candidates for admission furnish evidence of good moral character.

Admission As Freshmen

General Requirements

Applicants are admitted as freshmen after they have satisfied the general requirements and submitted evidence of graduation from an accredited four-year high school or from a three-year senior high school. Although no specific high school courses are prescribed, the College encourages the election of solid academic subjects as the best preparation for work in this institution. In addition to four years of English, substantial credit in mathematics, science, foreign language, and social studies is advised.

Provisional Admission

Freshmen applicants whose high school grade point average is below 2.0 (C) may be admitted only on a trial basis. Such a student is required to come to the campus for a personal interview and is asked to present other evidence that would indicate a reasonable chance for college success. His program of studies may be restricted to courses which he is judged competent to undertake.

Applicants who are admitted on a trial basis and who fail to meet minimum academic standards during the first quarter of attendance are placed on final academic probation (See Page 49).

Procedure

Method of Application

An applicant should (a) procure the uniform application blank used by all colleges and universities in the state of Washington either directly

from his high school principal or from the Admissions Office of the College; (b) provide the personal data required on this blank; (c) submit the application form to his high school principal who will supply the academic record and forward all data directly to the College.

The applicant will receive prompt notification of action on his application.

Revised Freshmen Admission Requirements Effective Fall Quarter, 1962

Beginning with admission for the fall quarter, 1962, and thereafter, the College will select for freshman admission those applicants who, on the basis of the evidence available, are judged likely to succeed in a college program. Since no single factor is a sufficient predictor of college success, admission will be granted to graduates of accredited high schools either on the basis of high school achievement or on the results of aptitude tests which indicate that the applicant has the potential to achieve success in an academic program.

This Multi-Factor Admissions Policy will grant admission to freshmen applicants who qualify in one of the following two respects:

1. High School Achievement

By achieving a 2.5 or better cumulative grade point average.

OR

By graduating in the upper one-half of the senior class.

OR:

2. Measured Aptitude

By demonstrating the ability to do college level work through aptitude tests which are commonly used in high school counseling and testing programs.

In order to ease the transition from one set of standards to another a student may qualify for admission either on the basis of high school grades earned after September 1961 or upon his total high school record.

Special provision will be made for mature persons, twenty-one years of age or older, who may be unable to meet the requirements for freshman admission.

Time of Application

Prospective freshmen are urged to apply for admission during their final semester in high school. Those recommended by high school authorities will be assured of admission without delay, subject only to evidence of high school graduation. Students thus accepted may make housing arrangements immediately. **All applications for the fall term must be filed prior to August 15.**

Admission with Advanced Standing

General Requirement

Students who have attended another accredited college or university are eligible for admission, providing they have achieved a cumulative grade point average of 2.0 (C) in all previous college work. Those who do not meet this standard may submit a written petition to the Faculty Scholastic Standing Committee. Exceptions to the minimum scholarship standard will be made only when extenuating circumstances are shown to be the cause of low academic achievement and when evidence of scholastic competence can be furnished. In many instances a personal interview will be required. For the fall quarter the petition and supporting evidence must be in the hands of the Committee not later than August 15; all other quarters petitions must be complete and on file one week prior to the opening of the quarter.

Because a large part of the teacher education curriculum is prescribed, it is frequently necessary for a student in this field who enters with three years advanced credit to spend four or five quarters to meet the total requirements for graduation.

Procedure

Procure "application for admission" form from the Admissions office. Fill out and return the form, including the nature of the program to be taken at the College.

Submit an official transcript of all credits earned in each collegiate institution previously attended. Failure to submit a complete record is considered a serious breach of honor.

Upon receipt of the application and records the College will notify the applicant as to his admission and his status in regard to graduation requirements.

All applications for fall quarter must be filed prior to August 15.

Admission to Graduate Standing

See section on graduate work, page 81.

Academic Regulations

Registration

Dates of Registration

The date of registration for each of the four quarters will be found in the official calendar on pages 4 and 5.

Welcome Week

Very careful provision is made for the induction of new students at the beginning of the academic year prior to the enrollment of returning students. Any students entering for the first time, whether as freshmen or as transfers from another college, who fail to participate in this opening week program will find themselves at a very serious disadvantage.

Preregistration

During the fall, winter, and spring quarters, students in attendance who plan to continue the succeeding quarters are expected to make out their class schedules for that quarter on the days specified for the purpose. In the spring quarter, students also preregister for the fall.

Registration Day

Except as noted in the preceding paragraphs, registration day for new students will be the first day of each quarter. Earlier registration opportunities are provided for students already in attendance.

Applicants for admission whose credentials have not been filed with the Admissions Office will not be permitted to complete their registration.

Late Registration

A fee of \$3.00 is charged if a student does not complete final registration by the close of the opening day of the new quarter.

Change in Registration

A fee of \$1.00 for any change in a student's schedule is charged after registration is completed unless such change is made upon the initiative of college authorities.

Entering New Courses

After the close of the first week of class instruction in the fall, winter, and spring quarters, students are not permitted to enter new courses. Special limitations apply to the more brief summer sessions; details are given in the summer bulletin.

Withdrawal

Withdrawal from Courses

Formal withdrawal from any course must be made in the Registrar's office. Students leaving a class without formal withdrawal will receive a failing grade in the course.

Students may withdraw from a course with a grade of "W" during the first four weeks of instruction in any quarter. No penalty is attached other than the change of registration fee and the loss of credit.

In unusual circumstances, a student may withdraw from a course after the fourth week of instruction. A grade of WP (passing) or WF (failing) will be posted according to the instructor's evaluation of the student's work up to the time of withdrawal, unless such withdrawal is made at College request. WF grades will be counted as failures in applying minimum scholarship standards.

No withdrawals are permitted during the last two weeks of a quarter.

Withdrawal from College

A student may completely terminate his enrollment at any time prior to the final two weeks of a quarter. Formal withdrawal at the Registrar's Office is necessary. Students who leave the College without official withdrawal will receive failing grades.

The regulations regarding WP and WF grades as stated in the preceding section apply equally to withdrawal from the College.

Credits and Load

Credits

The unit of college work, the "quarter hour credit," represents one class hour per week throughout a period of eleven or twelve weeks, which is called a "quarter." Laboratory courses normally meet for additional hours.

Courses carry credit ranging from one to five units or hours, according to the number of class meetings per week. Sixteen credits on this basis constitute the work of a quarter, and forty-eight credits that of the regular school year of three quarters.

Correspondence and Extension Credit

Work done by correspondence or extension 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.

Credit by Examination

Credit for work paralleling courses listed in this catalogue may, with the advance approval of the Registrar and of the department chairman, be established by examination.

The Academic Load

Sixteen hours including physical education constitute the standard student load. During the first quarter in residence students are limited to the standard load. Thereafter any program in excess of seventeen credits must be approved by the Registrar.

Students who are permitted to carry an overload must have met the following grade point standard during the previous quarter or in all previous work done in this institution:

18-hour load.....	2.8
19-hour load.....	3.0
20-hour load.....	3.2

A load in excess of twenty hours is not permitted under any circumstances. The maximum load allowed is somewhat less in the summer sessions.

A student doing outside work for three or four hours per day shall not carry more than thirteen hours, including physical education, unless he has demonstrated his ability to carry the load without detriment to his scholarship or health. A student working more than four hours per day is expected to reduce his scholastic program accordingly.

Evening classes or correspondence courses may be taken while a student is in residence only as part of his total allowable load. Prior approval of the Registrar is required before enrolling.

Attendance and Grades

Attendance Regulations

Class attendance is required at all times. Absences are excused only for reasons of illness or injury certified by the Health Service, in cases of emergency allowed by the Registrar, or at the request of some authorized member of the staff.

System of Grading

In reporting grades to the Registrar, instructors use the following marks:

A	Superior	S	Satisfactory
B	High	K	Incomplete
C	Average	W	Withdrawn
D	Low	WF ...	Withdrawn, Failure
F	Failure	WP ...	Withdrawn, Passing
U	Unsatisfactory	TF	Technical Failure

A course in which a student has failed must be repeated if credit is desired.

A TF is assigned when a student fails to carry out the prescribed procedure when withdrawing from college, or if he fails to clear a grade of K within the prescribed period.

The grade of S is given in certain courses where it is not practical to use the regular grading system. Credit is allowed as specified but no grade points are assigned and the course is disregarded in computing the grade point average.

The grade of K indicates that the work is satisfactory as far as completed. It permits the student after consultation with the Registrar to complete the work within a reasonable period in the way prescribed by

the instructor. The grade of K is given only in cases of illness or other extenuating circumstances which make it impossible to complete all work by the close of the quarter.

If the student remains in college the incomplete must be cleared during the quarter immediately following receipt of the grade; otherwise a grade of technical failure (TF) is assigned automatically. In special circumstances the Registrar may extend the period for removal of the incomplete. The privilege of clearing an incomplete lapses after five years even though the student is not continuously enrolled.

A grade of W is given when the instructor is notified that the student has officially withdrawn. WP or WF grades are assigned in cases of withdrawal after the fourth week of instruction as provided on page 45. If a course has been carried long enough and the work has been of a satisfactory character, the instructor may assign a K or, in exceptional circumstances, a grade carrying credit for the course.

Grade Reports

At the close of each quarter a grade report is mailed to all students. Reports will be mailed to parents of students under 21 years of age upon request of the parent or the student.

Mid-Term Deficiency Report

In the middle of each quarter, any grade below "C" is reported directly to the student, but not recorded.

Grade Points

Grade points serve as a means of objectively stating a given level of scholarship. The point value assigned for each grade is as follows: 4 points for A, 3 for B, 2 for C, 1 for D, 0 for F or U. The number of grade points earned in each course is computed by multiplying the number of credits by the grade point value of the letter indicated. Thus a 3-hour course with a grade of B is assigned 9 grade points. The grade point average is the result of dividing the total number of grade points by the total number of registered hours. A grade point average of 2.0 represents a letter standard of C. A grade of S and the credit involved in such a course do not enter into the computation of grade point average. Non-college credit courses are also excepted.

Grades for Repeated Courses

In the event a student repeats a course in which he has received a failing or low passing grade, the second grade is used in computing the grade point average, and the first grade is ignored.

Standards Governing Low Scholarship

Regulations

Termination of Enrollment

At the end of the third quarter of attendance, or of any subsequent quarter, a student is dropped from the College if his cumulative grade point average falls below 2.0. A student whose enrollment is thus terminated may normally petition the Scholastic Standing Committee for reinstatement unless he is on final probation (see below). A student whose cumulative average is below 2.0 will not be dropped at the close of any quarter in which he achieves a 2.0 average or better for the quarter.

*may be dropped after only 1 qtr on
acad. probation.*

Warning

Students who are not dropped but who receive less than a 2.0 grade point average during any given quarter are notified of the faculty's concern and encouraged to take advantage of all available assistance. Such warning becomes a matter of permanent record.

Academic Probation

1. A freshman admitted on provisional status who fails to achieve a grade point average of 2.0 at the end of the first quarter of attendance is placed on final probation (See below).
2. A freshman admitted to regular status who fails to achieve a grade point average of 2.0 at the end of the first quarter of attendance is sent a warning notice. He is required to consult with his faculty counselor during the first week of the ensuing quarter. If he then fails to achieve a cumulative grade point average of 2.0 at the end of his second quarter he is placed on academic probation.
3. Students other than first or second quarter freshmen are placed on academic probation:
 - a. when subject to scholastic warning for two consecutive quarters or
 - b. when admitted or readmitted to the College by action of the Scholastic Standing Committee.

1. Final only new Fresh. on Prev. adm.
2. Transfers admitted on Final Prob
3. Students dropped here + readmitted on Final Prob

Final Academic Probation

A student placed on "final probation" by the Scholastic Standing Committee must thereafter meet standards governing minimum scholarship and may not petition for re-enrollment if he fails to do so.

Restrictions Governing Students on Academic Probation

Students on academic probation (including final academic probation) (a) are not eligible for remunerative employment on campus; (b) may not hold an elective or appointive office in any student organization nor appear in any performance before the student body or the public; (c) may not represent the College or student body at any conference nor as a member of any team or organization.

Probationary status is terminated when a cumulative grade point average of 2.0 has been attained. This applies to those on final academic probation, except that in the event of subsequent failure to maintain this standard the student may not petition for reinstatement.

Other Regulations

Resident Status

Certain college regulations and standards relative to on-campus employment, eligibility for student offices, and requirements for graduation require status as a "full time resident student." This requires enrollment in regularly scheduled courses totaling not less than twelve quarter hours. However, veterans or students deferred by the Selective Service System are expected to carry loads adequate to constitute normal progress toward a degree.

Special Students

Persons carrying not more than six credits are classed as special students. They pay a smaller fee but do not share in certain student body privileges.

Auditors

Any mature person not desiring to register for credit may, with the consent of instructors and upon payment of a fee of \$15.00 per quarter, enroll as an auditor in any except laboratory courses.

Final Examinations

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, for emergency reasons, a student is unable to appear at a final examination at the scheduled time, he may arrange in advance with the instructor to receive a grade of "K" (incomplete). This privilege is to be extended only to students whose achievement in the course is satisfactory. Removal of the "K" grade is to be achieved early in the following quarter (summer excepted).

Application for Graduation

Students must make formal application to the Registrar for any degrees or certificates which are to be issued by the College. It should be noted that completion of requirements does not automatically lead to the issuance of the degree or certificate unless formal application is filed.

Student Living

General Information

The College considers group living an important phase in the total college experience and is therefore directly concerned in maintaining high standards.

Residence halls for men and women and a large number of approved homes provide adequate accommodations for students. Privately owned boarding places and housekeeping rooms are approved only as they meet the college standards.

All students who are not living at home or with immediate relatives are required to live in College approved residences. Women secure their rooms through the office of the Dean of Women. Men secure their rooms through the office of the Dean of Men.

General Information

Each hall is in charge of a qualified house mother. Adequate provision for the social life of student residents is provided.

Board and room are furnished to students at a rate as low as is consistent with proper living conditions. Dormitory residents must board at the College dining hall.

All rooms are for double occupancy. They are furnished with single beds, pillows, mattresses and pads, as well as study desks and chairs. Bed linen is supplied by the College. Blankets are furnished by the students.

In the women's halls a dresser is available in each room in addition to the items listed above. Towels, dresser scarves, pictures, and other accessories are furnished by the student.

Laundry facilities are available in both the women's and men's residences. No electric irons, electric heaters, or electric plates may be used in student rooms.

Students may not move from the halls during a given quarter except in an emergency and only with the consent of the Dean of Men or the Dean of Women.

The residence halls are closed during the college vacations.

On the opening day of each quarter, registration for room and board may be accomplished as part of the regular enrollment procedure.

College Residences

For Women

EDENS HALL is the area name given to three Halls located at the north end of the campus — North Hall, South Hall, and West Hall. These Halls provide housing for 440 women students.

SENIOR HALL is conveniently located midway between the College and the city center; about eight blocks from the campus. Formerly a private residence, the building has been adapted to student living. Senior Hall accommodates twenty-six women. By cooperative assistance with housework, costs are kept comparable with those at other college residences.

WOMEN'S RESIDENCE HALL on the north side of the campus accommodates 76 women. This building normally serves as a men's dormitory but has been converted temporarily for the use of women students.

For Men

HIGHLAND HALL, including a three-wing addition completed in September, 1960, provides quarters for 236 men.

Off-Campus Housing

Furnished Rooms

Furnished rooms are available in private houses near the College. These are engaged for the entire quarter; no changes are permitted during the quarter except in cases of emergency when satisfactory arrangements must be made with the house mother and either the Dean of Men or the Dean of Women. Students are advised to make personal application before entering the College. A list of approved houses will be mailed upon request to the Dean of Men or the Dean of Women.

Housekeeping Rooms

Under special conditions students may be granted permission by the Dean of Women or the Dean of Men to do housekeeping in approved quarters which are supervised by house mothers. A list of approved housekeeping rooms is available in the deans' offices.

The Y.W.C.A. and the Y.M.C.A.

These organizations afford living accommodations for a limited number of students. They also serve as temporary quarters for those who have not found permanent homes in the city.

Financial Arrangements

A room deposit of \$25 is required of all students in both college-owned and college-approved residences. A receipt for this deposit establishes the student's reservation for all three quarters of the academic year. The deposit may be left to apply at a later date following a leave of one quarter or more.

This deposit, less any charges for breakage, is normally refunded when the student checks out at the close of any quarter. Students in college halls obtain a checkout card from the Resident Director and a clearance signature from the Room Service Office.

Since summer reservations are made separately, deposits are carried over for the summer quarter only upon request of the student.

When this deposit is made in advance of actual occupancy it constitutes a reservation fee which in the event of cancellation is non-refundable unless the vacancy is filled without loss of revenue. Consequently, the earliest possible notification of cancellation is advisable. When a student is entitled to such a refund it is made at the beginning of the second week of the quarter for which the room was reserved.

Housing rates are described on page 64.

Housing For Married Students

The College owns and operates seventy-five apartments that are located on or near the campus. These apartments are unfurnished except for an oil-conversion range which provides heat and hot water for the unit. The rent on these units ranges from \$30.00 per month for a one-bedroom to \$35.00 per month for two bedrooms. Application for this type of housing is made through the Business Office. Preference is given to undergraduate veteran students.

Privately-owned apartments and dwellings suitable for married students are sometimes available. The offices of the Dean of Men and Dean of Women provide lists of known vacancies on request. These lists are prepared for distribution prior to the start of each quarter. In the main it is advisable to seek such housing further in advance.

Food Service

All College boarding facilities are centralized in Viking Commons, a new building adjacent to the Viking Union.

All dormitory residents are required to take their meals in Viking Commons on the seven-day meal plan (twenty-one meals). When the student is required to be off-campus every week-end for employment or other excusable reasons, a five-day plan may be arranged after clearance with the Dean of Men or Dean of Women.

Food service at Viking Commons is available to those living off campus at the same cost as that to dormitory residents. Meal tickets may be purchased on a seven-day, or a five-day, basis. Single meals are also available on a cash basis.

Health Service

The primary function of the Health Service is the protection of the college community.

A dispensary is open to all students during class hours. The College also maintains a hospital on the campus for communicable diseases and minor illnesses. Any student is provided care without charge for five days during the academic year. Thereafter a nominal per diem charge is made.

Illness of students must be reported at once, and each day thereafter, to the Nurses' Office. After an illness, the student must report in person to the Nurses' Office before attending classes.

In cases of severe illness the Health Service reserves the right to request the attendance of a physician chosen by the student. Close cooperation is maintained between the Health Service and the physician. For serious illness there are two city hospitals available to students.

In addition to the health services, the College sponsors a health and accident insurance plan which is available to students on an optional basis. This group policy with a notional company provides broad coverage and liberal benefits for a modest premium. Students who do not already carry adequate health and accident insurance are urged to take advantage of this plan.

Student Activities and Organizations

A total college experience, one which is in Woodrow Wilson's phrase "courses, contacts and contagions," encompasses a great deal that occurs outside the classroom. The program of student affairs at the College is planned and coordinated through the office of the Dean of Students to provide maximum opportunity for student participation in a wide range of genuinely profitable experiences. Student affairs are in no sense incidental in the total plans of the College; rather they are an integral and highly important phase of the total range of experiences aimed at helping students become well integrated, effective people.

Student activities and organizations, in a large measure, are administered by the students themselves with faculty advisement and within the framework of general college policy. The student handbook, "The Navigator," outlines in detail the frame of reference within which student organizations and activities operate.

MEMBERSHIP IN THREE ORGANIZATIONS belongs to every student by being enrolled in the College:

THE ASSOCIATED STUDENTS, by which the student body is largely self-governing, assumes a vital role in financing and managing a wide range of student activities.

FRESHMEN, SOPHOMORE, JUNIOR and SENIOR classes which are organized with officers, committees, and a plan of operation.

*Affiliated with like organizations in other Colleges on a regional or national basis.

**Newly organized or in the process of being organized.

THE ASSOCIATED WOMEN STUDENTS and the NORSEMEN which promote common interests and fellowship among women and men respectively. These groups assist in meeting and welcoming new students, and in generally sponsoring student activities.

The VIKING UNION is the community center of the College. Offices for many student activities, including the Associated Student Body, publications, and the Director of Student Activities, are located in the Union. The Director and the Union Board of Commissioners administer facilities and services which gives a new dimension to this aspect of college life. Meeting rooms, lounges, shops and work areas, together with the organization and program represent a well-considered plan for the community life of the college.

LIVING GROUP ORGANIZATIONS represent an important opportunity for personal growth. Students not residing at home will find that the residence halls are organized for self government and often sponsor activities on the campus.

STUDENT ORGANIZATIONS, each with its own objectives, are listed below. Each organization presents a special type of opportunity for a student to expand his competencies and to enlarge his circle of friends.

ALPHA RHO TAU*—an honorary society for students in the fine arts.

ALPINE CLUB—for all students interested in hiking and mountaineering.

ASSOCIATION FOR CHILDHOOD EDUCATION*—for students, usually prospective teachers, who are seeking a better understanding of the problems of children.

BACHELORS' CLUB—a men's organization to promote campus traditions, interest, and high standards.

BLUE BARNACLES—open to all girls interested in synchronized swimming.

COLHECONOMIST CLUB*—for women students who are interested in homemaking activities.

CRITICS CLUB—a discussion group for students who are interested in increasing their appreciation of literature.

DER DEUTSCHE STUDENTENVEREIN — for students of the German language.

*Affiliated with like organizations in other Colleges on a regional or national basis.

**Newly organized or in the process of being organized.

EPSILON PI TAU*—an international honor society in industrial arts.

FOLK AND SQUARE DANCE CLUB—open to all students interested in folk and square dancing.

HELMSMEN—a coeducational service club.

HUI O HAWAII**—to develop fellowship among the Hawaiian students and to develop an understanding of their culture.

INDUSTRIAL ARTS CLUB—provides opportunity for students of industrial arts to undertake special projects and further their own professional preparation.

INTERNATIONAL RELATIONS CLUB*—open to all students interested in studying and discussing national and international events and issues

KAPPA DELTA PI*—an honor society in education.

LE CERCLE FRANCAIS—a club to promote interest and understanding of the French people and their language.

MATHEMATICS CLUB—open to advanced mathematics students interested in promoting enthusiasm for this area of knowledge.

ORCHESIS—provides an opportunity for men and women to study creative dance as an art form and to compose and perform in the College and community.

PI KAPPA DELTA*—a forensic honorary society.

RHEBA D. NICKERSON CLUB—a professional organization for women who major or minor in physical education, health education, and recreation leadership.

SAILING CLUB**—for those students interested in sailing and related activities.

SCHOLARSHIP SOCIETY—an honorary organization recognizing high scholastic performance and ideals.

SCHUSSKEN SKI CLUB—to coordinate the efforts of students who ski or desire to ski.

*Affiliated with like organizations in other Colleges on a regional or national basis.

**Newly organized or in the process of being organized.

SOCIOLOGY-ANTHROPOLOGY CLUB**—to encourage exploration in and further academic interest in the fields of Sociology and Anthropology.

SWEA*—Student chapter of the Washington Educational Association—provides for education majors a strong professional organization which is affiliated with the Washington Education Association and the National Education Association.

STUDENT WIVES—to develop a program of interest for the wives of the married students.

THETA ALPHA PHI—to increase interest, stimulate creativeness and foster artistic achievement in all of the allied arts and crafts of the theater.

VALKYRIE—a college service club for women, to which members are elected on the basis of interest and participation in college affairs.

VIKING RIFLE CLUB**—to provide the proper instruction in the use of firearms and to promote the spirit of rifle competition.

VIKING SOUNDERS**—to coordinate and promote the sport of skin diving.

"W" CLUB—with membership open to men who have earned a letter in any of the five major sports. It aims to promote good sportsmanship and clean athletics.

WOMEN'S RECREATION ASSOCIATION*—for women students with special interest in synchronized swimming, dance, sports and outing activities.

POLITICAL ACTIVITIES—are open to all students through the local chapter organization of the Young Democrats* and the Young Republicans.* Although these groups do not represent an official action of the College, students are able to develop and further their own political ideas and to find expression for them in either of the two groups.

RELIGIOUS ACTIVITIES AND ORGANIZATIONS are open to all students through interdenominational and denominational groups not directly a part of the college program.

Inter-denominational organizations are the Inter-Varsity Christian Fellowship and the United Student Christian Foundation.

Denominations currently represented by student clubs are Baptist, Christian Science, Episcopalian, Lutheran, Methodist, Mormon and Roman Catholic.

*Affiliated with like organizations in other Colleges on a regional or national basis.

**Newly organized or in the process of being organized.

ATHLETICS have an important place in the activities program, whether inter-collegiate or intramural. Students interested, either as spectators or as participants, in intercollegiate sports can choose from football, basketball, baseball, track, swimming, tennis, golf, and skiing. The College is a member of the Evergreen Conference.

The comprehensive intramural schedule, which is outside of class hours, includes practically all group and individual sports. All students are encouraged to participate and to reap the benefits, not only of healthful recreation, but of increased physical skill.

DEBATE, DRAMA, MUSIC, PUBLICATIONS: Broad opportunities for the development of new interests and skills lie in the activities of various departments. Debate is a field in which the college has won considerable eminence, not only in this State, but in competition across the country. With the facilities of a regulation theater size stage, the students have an excellent opportunity for both acting and production. An active music department is developed around performance organizations including the band, orchestra, acappella choir, various quartet, string ensembles, and other small groups. Various publications, including a news weekly, the WESTERN WASHINGTON COLLEGIAN; a college yearbook, the KLIPSUN; and certain minor publications, exemplify an active interest in journalistic and editorial talents.

CONCERT AND LECTURE SERIES offers the students and faculty the opportunity to hear distinguished artists, scholars, and speakers from the fields of the arts, letters, sciences, religion, travel and entertainment. While on the campus the visitors are often engaged by departments of the College as well as being presented in student receptions, thereby giving the students the opportunity to become better acquainted with persons of distinction.

THE CIVIC MUSIC ASSOCIATION OF BELLINGHAM, in cooperation with the College, offers each year a Civic Music Series which includes programs by school and groups of international standings. Students have the opportunity to attend these programs without cost.

The Recreational Program

A policy of the College is to make ample provision for recreation throughout the year for all students, both men and women. The program, which is under the direction of a faculty committee, includes a wide range of activities.

A strong intramural program provides activities for men and for women as well as on a coeducational basis. The following activities which vary according to season and student interest, are available: field hockey, volleyball, basketball, softball, swimming, table tennis, tennis, golf, soccer, archery, speedball, shuffleboard, badminton, horseshoes, hiking, flag or touch football, rugby, and fencing.

On one evening a week the physical education building is open for recreation for both men and women. Other co-educational activities include hiking and skiing. Frequent ski trips are taken to the Mt. Baker Lodge area; occasional overnight trips are arranged during the height of the skiing season. The College Ski Shop provides equipment on a rental or purchase basis and has a repair service available.

During the summer session an extensive program of recreation is conducted.

At the LAKEWAY GOLF COURSE, a nine-hole course within easy walking distance of the College, instruction is offered at reduced rates to students, who are allowed playing privileges for a nominal fee. Other golf courses are located within a few minutes drive of the campus.

VIQUEEN LODGE, a thirteen-acre tract of land, is on Sinclair Island, one of the San Juan group. The property has a shore line on two sides. The lodge is owned by the Women's Recreational Association, but is available to other college students for day or week-end trips through the Women's Physical Education Department.

KULSHAN CABIN, a mountain lodge located in the Mount Baker region, is owned jointly by the College and the Mount Baker Club of Bellingham. Hikes of varying length and difficulty may be made in the vicinity of the cabin.

LAKEWOOD, owned by the Associated Students, is a nine-acre tract of land, with a quarter-mile waterfront on Lake Whatcom, where swimming, boating, and other outdoor recreation may be enjoyed. Lake Whatcom, a beautiful body of water twelve miles long and a mile wide, is within twenty minutes ride by automobile from the College.

Student Finances

In a period of fluctuating prices, all fees and living charges are subject to change without notice. Such changes, if any, will be moderate. The College will continue its policy of holding student costs to the minimum commensurate with effective services and healthful living.

Tuition and Fees

Checks and money orders for fees or living charges should be made payable to
WESTERN WASHINGTON STATE COLLEGE

Quarterly Tuition

Residents of the State of Washington	\$15.00
Non-Residents of the State of Washington	45.00
Additional Quarterly Fees	60.00

These fees are required of all students who register for more than six quarter hours of credit. Funds derived from this source are used to finance certain non-instructional aspects of the College program, including (a) student activities, including athletics and publications; (b) a student health program; (c) bond redemption for student residences and Union Building; (d) the student book store building; (e) the purchase of designated supplies and laboratory materials.

These funds are not used to finance instructional personnel or to construct or maintain instructional facilities.

Special Students—paid quarterly in lieu of other regular fees by those who register for not more than six credits:

Basic fee	\$5.00
Additional, for each credit	4.00

Auditors—paid quarterly by those enrolling for one or more courses without credit by permission of the instructor and the Registrar

	\$15.00
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Music Fees

Applied Music (Individual instruction in piano, violin, band instruments, voice, etc.)

Music 210, 211, 212, 213, 215.	
Music 510, 511, 512, 513, 515.	\$24.00
Pipe organ rental per quarter	10.00
Instrument rental or practice space per quarter	2.00

Course Fees in Physical Education

P.E. 137	Beginning Skiing	\$28.50
P.E. 133	Beginning Bowling	6.00
P.E. 237	Intermediate Skiing	28.50
P.E. 233	Advanced Bowling	6.00
P.E. 287m	Varsity Skiing	28.50

Other Course Fees

Other fees payable for special courses or by students with irregular status are as follows:

Student Teaching Fee in the following courses	
Education 391, 392, 400, 491, 492, 494, 495	20.00
Deficiency courses taken without credit:	
Mathematics 3	10.00
English 3	15.00

Miscellaneous Fees

On-campus Parking	3.00
Changes of Schedule Fee. After the student has completed his registration, a fee of \$1.00 is charged for any change not made on the initiative of a college official.	
Late Registration Fee. A fee of \$3.00 is charged if a student fails to preregister or register at appointed times.	
Test Service Fee	3.00
Required of those who fail to take the entrance tests of the regularly scheduled time.	

Special Examination Fee for those who seek college credit in a given course through examination	2.00
Certificate Fee payable at the time of graduation	1.00
Degree Fee payable at graduation	5.00
Placement Service Fee, payable at graduation	2.00

Transcript fee schedule:

Each student is entitled to one official transcript of his scholastic record at Western Washington State College without charge. For subsequent transcript requests, there is a charge of \$1.00. Additional copies requested at the same time are issued at a charge of 25c each. When additional credits have been earned, a free supplement will be sent upon request to the same addressee as a previous transcript.

Refund of Fees

In ordinary circumstances if a student withdraws from college during the first week of the quarter, all fees are refunded except for a \$3.00 service and records fee. If withdrawal occurs during the second week, only the student activities and the incidental fees are refunded. After the second week no fees are returned.

Textbooks

The College does not provide textbooks for the personal use of students, but the Cooperative Bookstore is maintained by the Associated Students to furnish all necessary books and supplies at reasonable prices.

Charges for Materials

For the convenience of those in certain courses requiring the extensive use of materials or articles retained by the student, materials are charged to the student at cost. The department issues an invoice for such materials and the student pays the charge at the Business Office.

Lockers

Metal lockers are available without charge to students who provide themselves with the standard type combination lock sold only by the Student Cooperative Bookstore.

Living Costs

Board and Room in College Residence Halls

Board and room charges in college residential halls for both men and women are payable by the quarter in advance. The rates are as follows:

Fall Quarter	\$217.50*
(Due September 29)	
Winter Quarter	213.50*
(Due January 4)	
Spring Quarter	206.00*
(Due March 28)	

While arrangements for smaller payments at the first of each month may be made, the student is obligated for the total quarterly charge.

* These charges are based on the actual number of meals served during the quarter. Board and room on a Monday-through-Friday basis is available only in cases of regular out-of-town week-end employment. Such arrangements are made through the Dean of Men or the Dean of Women.

Delinquent Accounts

Unpaid room and board accounts are assessed a penalty of 25c per day effective on registration day. The penalty applies each pay period for those who are delinquent in their payments. Registration and payment of room and board is to be made before the student receives meals in the residence halls. The student may pay on a cash basis until his board account is paid. This money is not refundable.

Refunds

Room payments are not refundable. Board refunds or partial refunds are made in case of one full week's illness or when a student teaching assignment conflicts with the meal schedule. Refund cards are issued in the Room Service Office, Viking Commons.

Furnished Rooms Off the Campus

Prices for furnished rooms without board range from \$17.50 to \$25 a month for each student in the room. Single rooms are somewhat higher.

Estimate of Total Costs

The total estimated expense for three quarters, including cost of books and supplies as well as a moderate allowance for incidentals, is as follows:

	<u>MINIMUM</u>	<u>AVERAGE</u>
If rooming and boarding	\$1,100.00	\$1,300.00
If housekeeping	850.00	1,150.00
If living at home or working for room and board	450.00	550.00

These figures make no provision for clothing costs or travel expense.

In a period of fluctuating prices, all fees and living charges are subject to change without notice. Such changes, if any, will be moderate. The College will continue its policy of holding student costs to the minimum commensurate with effective services and healthful living.

Opportunity for Self-Support

It is the policy of the College to offer as many opportunities as possible to young men and women who must earn part of their expenses. Such opportunities are found in the library and the science laboratories, the dining hall and kitchen of the residence halls, and in janitor service. Eligibility is established by registration for twelve credit hours of academic work and the attainment and maintenance of a satisfactory grade point average before or during attendance at the College. The College makes an effort to assist students in gaining part-time employment through the office of the Dean of Men, to which all inquiries should be addressed.

Students thus employed may be required to lighten their academic loads.

Living expenses may frequently be met in part by work in private homes and in stores and shops in the city. Also room and board may be provided in exchange for help with household duties. Such opportunities are more often available for women than for men. Arrangements for such opportunities may be made through the office of the Dean of Women.

Scholarships

Western Washington State College annually awards approximately 75 scholarships to outstanding entering freshmen. The awards are sufficient to cover the cost of College tuition and fees for one year.

To be eligible for consideration, students must rank in the upper quarter of their graduating class at the time of application and be recommended by their high school principal. Application forms may be secured from the high school principal or counselor after January 15 or by writing directly to the College. All applications must be completed and on file by March 15th.

The awards include:

PROSPECTIVE TEACHER SCHOLARSHIPS: These are available to entering students who plan to enter the teaching profession and who have demonstrated in a high degree those qualities required of superior teachers.

ARTS AND SCIENCES SCHOLARSHIPS: Entering freshmen who do not anticipate a teaching career but who expect to complete requirements for a College degree in another field of study are eligible to apply.

In addition to scholarships offered by the College, the Washington Congress of Parents and Teachers each year makes awards to freshmen students of outstanding merit entering Western Washington State College to prepare for teaching careers. For 1961-1962, three such scholarships are being granted in the amount of \$700 (\$175 each year for four years).

Also, the Boeing Airplane Company and the Radio Corporation of America have established scholarships at the College for prospective teachers of science and/or mathematics. Applicants for a Boeing or RCA Scholarship must show evidence of interest and outstanding ability in science or mathematics.

A limited number of awards are available to graduates of Washington junior colleges. Detailed information is available on request.

Music Awards

Music awards consisting of a full year's individual instruction without cost are given to students who demonstrate superior performance ability on an orchestral or band instrument, on the piano or organ, or in voice. Such awards may be extended to a second, third and fourth year.

Music award students are expected to (a) maintain satisfactory academic standing; (b) maintain high standards of performance on their major instruments or in voice; (c) participate in one or more of the Department's musical organizations: band, orchestra or choir; (d) prepare for recital or concert appearance. A student discontinuing his musical study before the close of any year forfeits his award.

Departmental Assistantships

Pregraduate Assistantships

Superior students in Arts and Sciences, in the fields of chemistry, English, history, foreign languages, mathematics and physics, are eligible to apply for Pregraduate Assistantships. The Cooperative Program of Education for College and University Teaching, sponsored by the Ford Foundation and the Universities of Washington and Oregon, is designed to aid students in their last two years as undergraduates and in their first year of graduate study. Counseling, as well as financial assistance, is provided.

A junior Pregraduate Assistant receives a stipend of \$350 per academic year; a Senior Assistant, \$600. The Assistant works with a professor in his chosen field so as to encourage the student's development as scholar and teacher.

Applications for Pregraduate Assistantships for the 1962-1963 academic year will be received beginning in March, 1962. For more information concerning the program, contact Professor August Radke, Department of History.

Graduate Assistantships

A number of graduate assistantships will be available in 1961-62 and 1962-63. Duties will be assigned in the various departments of the College. A stipend of \$200 per month will be paid. Inquiries should be addressed to the Dean of Graduate Studies.

The College Student Loan Fund

STUDENT LOAN FUND—A student loan fund exceeding \$30,000 is held in trust by the Board of Trustees and is made available at a low rate of interest to such students as recommended by a faculty committee. No one is eligible to borrow from this fund until after one quarter's residence.

EMERGENCY LOANS—Under special circumstances small emergency loans are made from the student loan fund through the President, Dean of Women, or Dean of Men. No emergency loan is granted for the payment of fees.

PROCEDURES — Detailed information concerning the Student Loan Fund may be secured from the Dean of Men's Office. Loan application forms are obtained from the Secretary of the Student Loan Committee in the Business Office.

National Defense Education Act Program

The College participates in the National Defense Education Act Student Loan Program — Loans are available to all students with proven academic ability who can also demonstrate financial need. The provisions of the Act make this loan program especially attractive for prospective teachers and students majoring in science, mathematics, or a modern foreign language. High school seniors of superior ability who are unable to finance a college education may make application for a loan under this program during the spring semester prior to graduation. All inquiries about the National Defense Student Loan Program should be directed to the Office of the Dean of Men.

Information For Veterans

The College has made every effort to adapt to the special needs of veterans. Those who are qualified for educational benefits under Public Law 550 (the Korean Bill) enroll under the provisions of that act. All payments are made directly to the veteran. A contract with the Veterans Administration is kept in force for those attending under Public Law 894, the Rehabilitation Act for disabled veterans.

A special advisory service for all veterans is provided through the Office of Admissions. Special inquiries should be directed to that office.

Matters of eligibility for veterans' benefits should be arranged directly with the Veterans Administration in advance of initial entrance. Veterans may secure a certificate of eligibility by presenting a copy of their discharge to the nearest Veterans Administration Office.

Veterans transferring from one institution to another or from another training situation in which they have been receiving veterans' benefits must notify the regional office of the Veterans Administration servicing their particular area and receive a revised certificate of eligibility.

There is some provision for the housing of married veterans at moderate cost.

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Children of deceased veterans who qualify for educational benefits under Public Law 634 should make the necessary arrangements directly with the Veterans Administration.

Student Personnel Services

The College does not consider that its responsibility to students ceases with the provision of good instruction and instructional facilities. There is a keen awareness that all aspects of the student's college experience relate to his development as an increasingly effective person. It is recognized that each student is a unique individual with his own pattern of abilities, circumstances, and needs. The College endeavors through its guidance program to assist a student toward better self-understanding and wise decisions in educational planning.

THE ORIENTATION PROGRAM. Enrollment of new students occurs in early September each year with planning and advisement on an individual basis. Immediately prior to convening the fall quarter new students have opportunity to become acquainted with the facilities and program of the College and to meet faculty and staff on an informal basis.

THE FRESHMEN COUNSELING PROGRAM. Without exceptions, all members of the teaching faculty devote a definite share of their time to consultation with new students during their first year on the campus. The advisory relationship extends on a more informal basis throughout the student's entire scholastic career. Each faculty sponsor accepts responsibility for assisting the individual student to effectively meet the initial problems of adjusting to college, to develop an intelligent career plan, and to select the program of studies most appropriate to that plan.

The aim of all counseling at Western Washington State College is to develop in the student himself the capacity and skills necessary for self-guidance.

THE ACADEMIC ADVISEMENT PROGRAM is a natural extension of services through the sophomore, junior, and senior years in all three divisions of study. The student's academic program in the freshman year consists largely of general education courses. As more elective opportunity develops, the student finds it necessary to make important decisions in the matter of course selection. Only by so doing may he realize the greatest returns from his college study in terms of a career objective. Further, for most students, an academic program must be planned within the framework of degree requirements. Through a carefully developed plan, the College endeavors to provide continuing personalized advisement. Enrollment and registration are looked upon as highly individualized procedures.

Student Personnel Offices

THE OFFICE OF THE DEAN OF STUDENTS. This office has the responsibility for planning and coordinating the out-of-class program and the guidance services of the College, bringing together into an effective working relationship the various student personnel offices.

THE ADMISSIONS OFFICE. High school students considering application for admission to Western Washington State College usually contact the Admissions Officer during their senior year through the State program of college conferences. In addition to pre-entrance guidance, this office administers admission procedures.

THE OFFICES OF THE DEAN OF MEN AND DEAN OF WOMEN. In these offices students find friendly counsel in meeting with any problems which may arise. The Deans also assume responsibility for providing and regulating living conditions conducive to success in college and for assisting students in finding part-time employment.


OFFICE OF THE REGISTRAR. This office is responsible for the maintenance of complete student records and for administering the academic regulations of the College. The Registrar also has important counseling and advisement responsibilities.

PSYCHOLOGICAL SERVICES AND RESEARCH. In addition to other functions, this office makes available a testing and counseling service to students who seek aid in their vocational and personal planning.

OFFICE OF STUDENT AFFAIRS. The encouragement of sound student government and the effective coordination of the extra-curricular program are the major responsibilities of the Director of Student Activities.

THE PLACEMENT OFFICE. Through this office, the College assists its graduates and prospective graduates to find full-time positions appropriate to their training and abilities. Placement service is also rendered to graduates who may register for promotion or change of position.

THE HEALTH SERVICE. The College nursing staff is consulted in any instance of illness or accident and is available for guidance in all health matters. Through this office dispensary and infirmary services are also administered.



The Instructional Program

The Instructional Program

Courses of study offered by the College are planned to meet the needs of three distinct groups:

Those preparing for careers in public school teaching and administration. This is the first responsibility of the College.

Those seeking a full four years of liberal education as general preparation or as pre-professional training.

Those entering upon well-defined professional training, such as engineering, journalism, and business administration, who prefer to take the first one or two years in the more intimate atmosphere of a smaller college.

Provisions for these three groups are outlined under:

1. **The Program of Teacher Education.**
2. **The Arts and Sciences Program.**
3. **The Junior College Division of Studies.**

Teacher Education

Teacher Certification, Washington

In 1960 the Washington State Board of Education adopted modifications in the teacher certification program which are implemented in the program of teacher education at the College. Under this program, two certificates are granted: (1) The Provisional Certificate, and (2) The Standard Certificate. The Provisional Certificate is issued with the Bachelor of Arts in Education degree upon completion of a prescribed four-year pre-service program. The Standard Certificate is issued after teaching experience and upon completion of a fifth college year.

The guidelines and standards adopted by the State Board of Education place responsibility upon the teacher-education institutions for recommendation of teachers to teach at specific grade levels and in specific subject-matter areas in the schools of the state. The assignment of first-year teachers at the recommended grade levels and in the recommended subject-matter areas is the responsibility of the school districts of the state.

The initial year of teaching experience is considered part of the teacher's education, and is to be followed by a planned program of continued study before the standard certificate is issued.

Admission to the Program

Admission to the teacher education program is by application to the Department of Education. See the departmental section for further information.

The Pre - Service Program

The undergraduate or four-year college program leading to the provisional teaching certificate includes

General Education: Every teacher regardless of the level at which he teaches, should be a liberally educated person. His knowledge should range across such areas as the humanities, the arts, the social sciences, and the natural sciences and mathematics.

Areas of Subject-Matter Concentration: Every teacher should achieve a reasonable degree of scholarly competence in some field or area of learning which is applicable to the curriculum of the public schools.

The Professional Sequence: Every teacher should engage in a systematic study of education as a profession in order that he may understand the school, the pupil, and the teaching process.

Electives: Every teacher should extend his knowledge beyond that developed through required courses by choosing courses immediately related to his widely-ranging interests.

The Bachelor of Arts in Education Degree and the Provisional Certificate

General Requirements

Each student wishing to be granted the Degree of Bachelor of Arts in Education must satisfy the following requirements:

Residence. At least one full year (45 credits) in residence. A maximum of 48 credits may be applied in extension or correspondence work.

Final Residence. The last quarter's work (at least 12 credits) earned in residence.

Scholarship Standard. A cumulative grade point average of 2.0 is required and at least "C" grades in all professional courses and in all courses applying to majors and minors.

Credits. At least 192 credits.

Upper Division Credit. Not less than 60 of the 192 credits must be in courses numbered 300 or higher.

Program. Prescribed courses, as outlined in the following section, in:

General Education	29 credits
Subject-Matter Concentration	67 to 70 credits
The Professional Sequence.....	46 to 48 credits
Electives	15 to 18 credits

Requirements in General Education

All students wishing to qualify for the Provisional Certificate and the Bachelor of Arts in Education Degree must take the following:

	Credits
*English 100, English Composition	3
English 101, English Composition	3
Speech 100, Fundamentals of Speech	3
Physical Science 101, Matter and Energy	4
Biology 104, Principles of General Biology.....	4
**Mathematics 151, Fundamentals of Mathematics.....	3
Physical Education, Selected Activity Courses.....	3
General Education 102, Earth Science	4
General Education 105, Behavioral Science	4
General Education 121, Humanities I	6
General Education 122, Humanities II	6
General Education 123, Humanities III	6
General Education 221, Humanities IV	6
General Education 301, Junior Studies	2
General Education 401, Senior Studies	2

*NOTE: All students must demonstrate ability to undertake the study of English and mathematics at the college level by tests administered at entrance. Those failing to do so must make up this deficiency before being admitted to English 100 or Mathematics 151. This may be done by independent study or by enrolling in English 3 (Fundamentals of English, fee \$15.00) or Mathematics 3 (Fundamentals of Mathematics, fee \$7.50) without credit. These deficiencies must be cleared before enrolling in the fourth quarter of college study.

**Mathematics 101. Principles of Algebra 5 credits, may be taken in lieu of Mathematics 151.

The Professional Sequence

Each student wishing to qualify for the Provisional Certificate and the Bachelor of Arts in Education Degree must take the following courses:

	Credits
Education 301, Education and American Society	3
Education 392, Directed Teaching	8
Education 492, Directed Teaching	16
One of the following three courses:	
Education 315, Foundations of Education	3
Education 316, Foundations of Education	5
Education 415, Philosophy and the Curriculum	5
Psychology 261, Psychology of Adjustment	3
Educational Psychology 355, Human Growth and Development	4
Educational Psychology 371, Evaluation in the Public School	3
Educational Psychology 451, Principles of Human Learning	3
History 391, Washington State History and Government	3

Requirements for Subject-Matter Concentration

Each student wishing to qualify for the Provisional Certificate and the Bachelor of Arts in Education Degree must earn from 60 to 70 credits in an approved concentration of courses in a field or fields related to the curriculum of the State's public schools.

A choice, or choices, may be made among programs at three levels of public school organization

1. PROGRAM FOR ELEMENTARY SCHOOL TEACHING
2. PROGRAM FOR JUNIOR HIGH SCHOOL TEACHING
3. PROGRAM FOR SENIOR HIGH SCHOOL TEACHING

Further choice or choices as to subject-matter specialization may be made within each program, as described below:

PROGRAM FOR ELEMENTARY SCHOOL TEACHING

Subject-matter concentrations are to total no more than 70 credits and are to be divided into two categories

The **Elementary Concentration**. Courses required in this block will total no more than 42 credits, and will be distributed over the four years of preparation:

Expressive Arts:	Credits
Art 325 Art Education	5
Music 250, Fundamentals of Elementary School Music.....	2
Music 251, Teaching Elementary School Music.....	3
Language Arts:	
English 485 or Education 485, Techniques of Reading.....	3
Two of the following courses:	
English 425, English for the Elementary School.....	3
Library 305, Books for Elementary Schools.....	3
Speech 233, 355, 430, or 450.....	3
Mathematics:	
Mathematics 251, Foundations of Mathematics.....	4
Mathematics 481, Mathematics in Grades One through Eight.....	4
Physical Education:	
Physical Education 306, Physical Education Methods and Materials for the Elementary School.....	3
Science:	
Two of the following three courses:	
Physical Science 382, Physical Science for Elementary School	3
Biology 383, Biological Science for the Elementary School.....	3
Geology 384, Earth Science for the Elementary School.....	3
Social Studies:	
Social Studies Education 425.....	3

One or more of the courses listed above may be waived if permission is granted by the Education Department and the department in which the course is taught. A student should request the waiver of a course only if he can provide evidence that the competence which the course is to develop has been provided for in other ways; for example, mathematics majors may request a waiver of Mathematics 251, or students having extensive background through private lessons in music may request a waiver of Music 250.

Exceptions to this program are music specialists who will take 67 credits in music, and speech correctionists who will take a 45 credit major in speech correction and an approved minor of not more than 25 credits.

Subject-Matter Major. In addition to completing the elementary concentration, each student will, prior to graduation with provisional certification, complete at least 28 quarter hours of credit toward a major, the remainder of the major to be completed during the fifth year of college work.

A student, upon choosing a major, shall consult with an advisor from the department offering the major and shall plan a program that is relevant to teaching in the elementary schools. For interdepartmental majors in general science, language arts, and social studies, students should obtain program approval from the instructors of Physical Science 382, English 425, and Social Studies 425, respectively. See the Schedule of Classes booklet to identify these instructors.

Approval for the beginning of a major requires that course specifications shall be written into the student's Permanent Record Book and signed by the appropriate departmental or interdepartmental advisor.

PROGRAM FOR JUNIOR HIGH SCHOOL TEACHING

Students wishing to prepare for teaching in the junior high school, in addition to fulfilling the requirements in general education and the professional sequence, will normally complete a major of no more than 45 credits and a minor of no more than 25 credits. If students wish to prepare for the core or block of time program in the junior high school, they should be certain that they take the appropriate majors and minors.

The student preparing to teach at the junior high level may take one of the following departmental or interdepartmental majors:

ART	HISTORY	MUSIC
BIOLOGY	HOME	SPECIALIST*
ENGLISH	ECONOMICS	PHYSICAL
FOREIGN	INDUSTRIAL ARTS	EDUCATION
LANGUAGE	LANGUAGE ARTS	PHYSICAL
GENERAL	MATHEMATICS	SCIENCE
SCIENCE		SOCIAL
		STUDIES

The following departmental minors are permitted for the junior high level:

ART	GEOLOGY	MATHEMATICS
BIOLOGY	GEOGRAPHY	PHILOSOPHY
BUSINESS	GOVERNMENT	PHYSICAL
EDUCATION	HEALTH SCIENCE	EDUCATION
CHEMISTRY	HISTORY	PHYSICS
ECONOMICS	INDUSTRIAL ARTS	PSYCHOLOGY
ENGLISH	LIBRARY SCIENCE	SOCIOLOGY-
FOREIGN		ANTHROPOLOGY
LANGUAGE		SPEECH

PROGRAM FOR SENIOR HIGH TEACHING

Students intending to specialize as teachers at the senior high school level, in addition to fulfilling the requirements in general education and the professional sequence, are expected to prepare themselves in at least two fields of study, a major of no more than 45 credits and a minor of no more than 25 credits.

The following departmental majors are permissible at the senior high level:

ART	GEOGRAPHY	MUSIC
BIOLOGY	GOVERNMENT	SPECIALIST*
BUSINESS	HISTORY	PHYSICAL
EDUCATION	HOME	EDUCATION
CHEMISTRY	ECONOMICS	PHYSICAL
ENGLISH	INDUSTRIAL ARTS	SCIENCE
FOREIGN	MATHEMATICS	PHYSICS
LANGUAGE		SPEECH

*67 quarter hours of credit preparing music specialists for all levels of instruction.

Minors may be obtained in the following fields:

ART	GEOLOGY	MATHEMATICS
BIOLOGY	GEOGRAPHY	PHILOSOPHY
BUSINESS EDUCATION	GOVERNMENT	PHYSICAL EDUCATION
CHEMISTRY	HEALTH SCIENCE	PHYSICS
ECONOMICS	HISTORY	PSYCHOLOGY
ENGLISH	INDUSTRIAL ARTS	SOCIOLOGY- ANTHROPOLOGY
FOREIGN LANGUAGE	LIBRARY SCIENCE	SPEECH

For specific course requirements, see the departmental sections.

Sequence of Courses

In order that courses required in teacher education be taken in proper sequence, a student's program is planned in advance. To effect a distribution of students among courses, entering freshmen are classified into three groups according to their rank on the English placement section of the Pre-College Differential Guidance Test. Specifically outlined schedules are printed in the Schedule of Classes which is published prior to the beginning of the academic year. Students are expected to follow the sequence for their group unless they are enrolled as specialists in music or home economics, or as majors in certain fields (e.g. science, mathematics, and foreign languages) which require an adjusted pattern.

The Fifth Year of Study for the Standard Teaching Certificate

The Provisional Teaching Certificate is issued for a period of three years and is renewable for three more years upon the completion of at least 12 credits of the fifth college year. During the first year of teaching, the teacher consults with school district and college advisers in order to develop plans for a fifth year of college study. His program is individualized in light of his unique experience, preparation, and plans for the future.

General Credit Regulations

1. Total credits required: 45 credits.
2. Extension and/or correspondence credit is limited to 12 credits.
3. At least one-half of the credits must be in upper division or graduate courses.
4. Courses must be selected from both the academic and professional fields.
5. As many as half the credits of the fifth college year may be specified by the college.
6. Although the fifth year of study normally comes after teaching experience, fifteen credits may be taken prior to the beginning of the teaching career. Under special conditions the College may permit individual students to take as many as thirty credits prior to the initial year of teaching. Not more than fifteen of these thirty credits may be taken prior to the approval of a fifth-year plan. In any case, at least half of the credits must be taken in residence at the recommending institution or an approved out-of-state institution. The candidate is allowed six years in which to meet the requirements for the Standard Teaching Certificate.

Regulation Governing Choice of Institutions

The teacher may choose the institution of higher learning in which to fulfill the fifth college year requirement for the Standard Teaching Certificate.

If the teacher selects a teacher-education institution within the State of Washington for his fifth college year, that institution will develop with him an appropriate program and will be responsible for recommending him for the Standard Teaching Certificate.

A teacher who selects an out-of-state college or university for his fifth college year will rely upon his pre-service or undergraduate college for advisement and recommendation for the certificate. In such cases approval for the fifth year plan must be obtained from the pre-service institution in advance.

DIVISION of GRADUATE STUDY

The College has as its primary purpose the preparation of professional personnel for the schools of the State. In 1947 the legislature authorized the College to offer programs of study leading to the degree of Master of Education. The administration and faculty of the College have interpreted their responsibility as that of developing with candidates advanced subject backgrounds and professional skills in order that they may assume positions of leadership in teaching, administration, supervision, and special services.

Accreditation

The graduate program provided at Western Washington State College is accredited by the National Council for Accreditation of Teacher Education for the preparation of teachers, school principals, and specialized school personnel.

The Program

Students working toward a master's degree at this college are admitted to the program in two stages:

1. Admission to graduate degree status.
2. Admission to candidacy for the degree.

Graduate Degree Status

Students holding an earned baccalaureate degree from an institution accredited by the National Council for Accreditation of Teacher Education, or by the appropriate regional accrediting agency, may be admitted to graduate courses provided their baccalaureate degree embodies a pattern of professional preparation comparable to the requirements for teacher certification in the State of Washington. Admission to graduate courses does not imply graduate degree status.

Admission

Students desiring admission to graduate degree status must:

1. file with the Director of Graduate Studies an application for graduate degree status;
2. furnish two official copies of transcripts covering their baccalaureate degree and any courses taken subsequently;

3. provide scores for the Graduate Record Examination, and the Miller Analogies Tests. These are regularly administered at the College prior to summer sessions.

Eligibility

1. Unconditional admission to graduate degree status requires a grade point average of 3.0 (B) for the last year of undergraduate study.
2. Those students with a grade point average from 2.5 to 2.99 for the final undergraduate year who have completed 12 hours of an approved graduate program with a "B" average are considered by the Graduate Council to have satisfied the scholastic requirement. Credit toward the master's degree may be allowed for those approved courses in which a grade of "A" or "B" is achieved.
3. Those students with a grade point average below 2.5 for the final undergraduate year who have completed 15 hours of approved upper division courses with a "B" average, are considered by the Graduate Council to have satisfied the scholastic requirement. However, these credits do not apply to the master's degree.
4. If the student's undergraduate course has been deficient in breadth and does not provide a proper foundation for advanced work in his chosen area of concentration, he is required to take specified undergraduate courses, without graduate credit, before he may be admitted to regular graduate degree status. All such deficiencies must be cleared before the student is admitted unconditionally to candidacy for the master's degree.
5. Work beyond the baccalaureate level taken prior to application for the master's degree will be reviewed in terms of applicability to a master's degree program. In no case will more than 9 hours of such work be accepted as applicable to the master's degree.
6. Students of Western Washington State College who require less than sixteen hours for a bachelor's degree may be permitted to earn graduate credit for hours in excess of the 192 required undergraduate credits. For such students the total load during the quarter in question may not exceed sixteen hours.

Advisement

Upon admission to graduate degree status a student is assigned an interim adviser who approves his program until such time as the student is admitted to candidacy for the master's degree.

Candidacy

Admission

1. Students desiring admission to candidacy for the master's degree must file an application with the Director of Graduate Studies. This application should be presented within the last three weeks of the quarter in which Education 501, Introduction to Graduate Study, is completed.

2. Applications for admission to candidacy are acted upon by the Graduate Council after approval by the department or departments involved in the applicant's area of concentration.

Eligibility

In addition to the requirements for admission to graduate degree status, the following items are considered in admission to candidacy for the master's degree.

1. A minimum of one year's approved teaching experience.

2. A minimum of twelve hours of acceptable resident graduate work with an average of 3.0 (B) is required, including Education 501. When a grade of C is earned in Education 501, consideration for candidacy is postponed until Education 512 has been completed.

3. Evidence of general maturity and professional promise.

4. The candidate's rating on the Graduate Record Examination and the Miller Analogies Test.

Students approved by the Graduate Council as meeting the above requirements are notified promptly. Where there is doubt, the decision is delayed so that the student may have an opportunity to demonstrate his abilities. In no case will the decision relative to admission to candidacy be delayed beyond the opening of the third quarter of graduate study.

Preliminary Examination

A preliminary examination in education is administered during the first quarter of graduate residence and prior to admission to candidacy for the master's degree. The results of this examination provide a basis for program advisement.

Advisement

Upon admission to candidacy, an adviser or a committee will be appointed for each candidate, depending upon the option which he chooses for the completion of the degree requirements. Choice of adviser will be made in accordance with the area of concentration which the candidate chooses.

A graduate student who has, upon admission to candidacy, indicated an area of concentration will be required to notify the graduate office and his graduate adviser of any changes in plans which affect this area of concentration. In the event he changes from one area of concentration to another, his credits will be evaluated in terms of their applicability to the new area of concentration. The Director of Graduate Studies will in consultation with a representative of the new area of concentration determine the number of credits to be allowed.

Degree Options

An approved candidate may qualify for the Master of Education Degree by either of two plans. It is the student's responsibility to notify the Division of Graduate Studies as to choice of option when application is made for admission to candidacy.

Option I

CREDIT REQUIREMENT

Forty-five quarter hours of credit.

A minimum of twenty-three of these hours of acceptable course work must be earned in courses open only to graduate students (500 numbered).

FIELD PROJECT OR THESIS

Plans must be reported to and approved by the student's graduate committee before research study is begun. Six quarter hours of credit are earned upon approval of the completed report or thesis.

The field project or thesis demonstrates the student's ability to do independent study and to report his investigation or project in writing. At least three weeks before the end of the quarter in which he expects to graduate, the student presents to the Director of Graduate Studies three bound, typewritten copies approved and signed by his graduate committee. Two copies become the property of the College. One copy is placed in the College Library and one copy in the Graduate Division Library. The third copy is delivered to the student's committee chairman.

The candidate is required to submit with his field project or thesis a 200-500 word abstract. A form for this abstract may be obtained from the Office of Graduate Studies.

FINAL EXAMINATION

A comprehensive oral examination is conducted by the candidate's committee during his last quarter of residence. The examination covers the content of the master's degree program in professional education and in the candidate's area of concentration.

GRADUATE COMMITTEE

A committee of three is appointed to advise the candidate and approve his thesis program at various stages of its development. The chairman of the committee will approve the candidate's program of study.

GENERAL REQUIREMENTS

(See below).

Option II

CREDIT REQUIREMENT

Forty-eight Quarter Hours of Credit

A minimum of twenty-four hours of acceptable course work must be earned in courses open only to graduate students (500 numbered).

FINAL EXAMINATION

The examination covers the content of the master's degree program in professional education and in the candidate's area of concentration.

ADVISER

An adviser is appointed to approve the candidate's program of study.

GENERAL REQUIREMENTS

(See below).

General Requirements Relative to Both Options

COURSE AND GRADE REQUIREMENTS

All courses submitted by a student in fulfillment of the master's degree requirement must be approved by his adviser and must represent a coherent program of study as related to his area of concentration.

NUMBER OF CREDITS PRIOR TO EDUCATION 501—Not more than 15 hours of graduate credit earned prior to enrolling in Education 501 will be accepted.

COURSES APPLICABLE IN THE DEGREE PROGRAM—Only those courses in the 400 and 500 numbered series and certain specified 300 numbered courses are counted toward the master's degree. Courses in the 500 numbered series are open to graduates only and must represent at least half of the candidate's program.

GRADES—The grades for all courses submitted for the master's degree must average not less than "B." No grade below "C" is allowed for graduate work. A grade of "S" is counted as a "C" in determining the student's grade average.

REQUIRED COURSES—Three courses are required of all candidates: Education 501, 512, and 513.

NUMBER OF CREDITS AFTER ADMISSION TO CANDIDACY

A degree candidate must complete a minimum of fifteen quarter hours of acceptable graduate credit following his admission to candidacy for the master's degree.

SEVEN-YEAR TIME LIMITATION

Graduate courses taken seven years or more prior to the time for graduation shall be reviewed by the student's adviser to determine their acceptability. He shall make recommendations to the Graduate Council for final action.

EXTENSION AND CORRESPONDENCE COURSES

1. No graduate credit shall be allowed for courses taken by correspondence.

2. Not more than nine quarter hour credits of extension work may be allowed for the master's degree. For such courses the standard of work must be equal to that of the courses offered on the campus and must be taught by regular members of the college staff. Extension courses do not apply in satisfying the residence requirement.

Before enrolling for extension courses the graduate student must secure the approval of his adviser.

The responsibility for the furnishing of transcripts covering extension work rests with the student.

Six quarter hour credits may be earned through supervised field projects. These should include conferences and a report to be reviewed by the student's adviser or committee.

RESIDENCE REQUIREMENTS

1. Residence status requires that the candidate be enrolled on campus at least three quarters and earn a minimum of thirty-six quarter hours. These need not be consecutive quarters. Some modification of the residence requirement is possible for graduates of Western Washington State College and limited adjustments may be made for students professionally employed.

2. Students of Western Washington State College who require less than sixteen hours for a bachelor's degree may be permitted to earn graduate credits for hours in excess of the 192 required undergraduate credit. For such students the total load during the quarter in question may not exceed sixteen hours.

TRANSFER CREDITS

A graduate of Western Washington State College, having achieved graduate degree status, may transfer a maximum of 15 hours of acceptable credit earned at another accredited institution. However, it is desirable that the student take the first quarter of his graduate study at Western Washington State College in order that work taken elsewhere may be part of an approved program.

COURSE LOAD

1. The course load of the graduate student shall not exceed 15 hours in any one quarter and may further be limited by the Graduate Council and/or the student's graduate adviser or committee.

2. Students holding what would ordinarily be considered a full-time position may not be permitted to receive graduate credit for more than five quarter hours during any one quarter.

Awarding the Degree

The degree is officially granted at the close of the quarter in which the student has fulfilled all degree requirements. Recommendations for the awarding of the degree are made to the Graduate Council by the student's adviser or by the chairman of his thesis committee.

Graduation

Commencement exercises are held annually in June at the close of the regular school year. All candidates for the master's degree in education are required to participate in the commencement exercises following the granting of the degree regardless of the quarter in which they complete all degree requirements.

Calendar

OPTION I

THESIS OR FIELD PROJECT—The thesis or project report must be ready for binding one month before the close of any quarter in which the degree is granted.

FINAL ORAL EXAMINATION—A comprehensive oral examination is conducted by the candidate's committee during his last quarter of residence. This examination covers the content of the master's degree program in professional education and in the candidate's area of concentration.

OPTION II

FINAL WRITTEN EXAMINATION—A written examination will be held in April and in July or August at the close of the six-week summer session each year. This examination covers the content of the master's degree program in professional education and in the candidate's area of concentration.

Area Programs

The master of education degree program is planned to meet the need of the public schools for educational experts with academic proficiency and leadership ability. In accordance with this planning, the granting of the Ed.M. degree depends on demonstrated competence in:

1. Interpreting current thinking and practice in the field of education;
2. understanding and applying the findings of educational research to the problems of education;
3. relating educational problems to their basic rationale in human experience and knowledge;
4. providing academic background and specialized techniques essential to meet the responsibilities involved in certain school positions;
5. applying a creative approach to the study and solution of educational problems.

To develop the above competence, the departments of the College working with the Graduate Council have organized a number of degree programs in professional areas. These programs are designed to meet current needs in the field of education and to make provision for the degree candidate's individual needs for professional and academic learning. In these area programs, only 12 quarter hours of general background work are required. The remaining requirements and electives

are based on the specialization for which the program prepares and on the background of the individual student.

Programs have been developed in the following areas

TEACHING SPECIALIZATIONS

Art—Elementary
 Art—Junior High School
 Art—Senior High School
 Biology
 Business Education
 Chemistry
 Core Program
 Elementary School
 English
 General Science
 History
 Industrial Arts
 Mathematics
 Music—Choral Director
 Music—Instrumental Director
 Physical Education
 Physical Science
 Physics
 Social Sciences

ADMINISTRATION

School Administration—
 Elementary, Secondary,
 General

SCHOOL SERVICE PERSONNEL

Curriculum Consultant—
 Elementary
 Curriculum Consultant—
 Secondary
 Music Consultant—
 Elementary School
 Elementary School Supervisor
 Audio-Visual Education—
 Director

PSYCHOLOGICAL SERVICES

School Counselor
 School Psychologist
 Reading Consultant
 Teacher of Exceptional Children

Graduate Assistantships

For information regarding graduate assistantships, see page 67.

FOR FURTHER INFORMATION

For further information, interested persons may write the Dean of Graduate Studies, requesting a copy of the Graduate Bulletin.

Arts and Sciences

The four-year programs in non-professional areas are planned to insure students a background in the broad fields of learning and an opportunity to master the skills of communication. In addition, they provide ample opportunity for specialization as well as elective leeway.

Requirements for the Degree of Bachelor of Arts

General

- A. **RESIDENCE.** A minimum period of one year of residence is prescribed. Not less than 45 credits must be earned in residence on the campus. A maximum of 48 credits of correspondence and/or extension study may be applied.
- B. **FINAL RESIDENCE.** The last quarter's work (at least twelve quarter hours) before receiving the degree, must be earned in residence.
- C. **SCHOLARSHIP.** A minimum grade-point average of 2.0 (C) is required. No course graded below "C" may be counted in a major or minor concentration.
- D. **CREDITS.** A total of 192 quarter hours.
- E. **UPPER DIVISION CREDITS.** At least 60 quarter hours must be in courses numbered 300 or higher.

The requirements for the Bachelor of Arts degree include (1) prescribed credits in general education; (2) subject-matter concentration up to 110 credits; (3) free electives.

General Education Courses

DEPARTMENTAL COURSES

		Credits
*English 100	English Composition	3
English 101	English Composition	3
Speech 100	Fundamentals of Speech	3
Physical Science 101	Matter and Energy	4
Biology 104	Principles of General Biology	4
*Mathematics 151†	Foundations of Mathematics	3
Physical Education	Selected Activity Courses	3

INTERDEPARTMENTAL COURSES

General Education 102	Earth Science	4
General Education 105	Behavioral Science	4
General Education 121	Humanities I	6
	Hebrew, Classical, and Early Christian Periods	
General Education 122	Humanities II	6
	Middle Ages, Renaissance, and Reformation	
General Education 123	Humanities III	6
	Ages of Rationalism, the Enlight- enment, Revolution, and Romanticism	
General Education 221	Humanities IV	6
	The Modern World	
General Education 301	Junior Studies	2
General Education 401	Senior Studies	2

*NOTE: All students must demonstrate ability to undertake the study of English and mathematics at the college level by tests administered at entrance. Those failing to do so must make up this deficiency before being admitted to English 100 or Mathematics 151. This may be done by independent study or by enrolling in English 3 (Fundamentals of English, fee: \$15.00) or Mathematics 3 (Fundamentals of Mathematics, fee, \$17.50) without credit. These deficiencies must be cleared before enrolling in the fourth quarter of college study.

† Mathematics 101. Principles of Algebra. 5 credits, may be taken in lieu of Mathematics 151.

Requirements for Subject-Matter Concentration

A degree candidate must present one major and one minor field of concentration.

MAJOR

Requirements for the major are specified by each department. In most cases "supporting courses" are prescribed as a required supplement to the major. The total requirements for a major and supporting courses in no case exceed 85 credits.

MINOR

From 18 to 25 credits as prescribed by departments are required for a minor.

Students may take additional elective courses in major and minor fields of study.

The application of courses taken in other colleges will be determined by the department chairman concerned. For the most part, it is expected that the work toward the major and minor will be done in this institution.

SPECIFICATIONS FOR MAJORS AND MINORS will be found under appropriate departmental headings in the "Academic Departments" section of this catalogue.

MAJORS: Art, Biological Science, Chemistry, Economics—Business, Economics—General, English, Foreign Languages, Geography, Geology, Government, History, Home Economics, Industrial Arts, Mathematics, Music, Psychology, Physics, Recreation, Sociology-Anthropology, Speech.

MINORS: Art, Biological Science, Business Education, Chemistry, Economics—General, English, Foreign Languages, Geography, Geology, Government, History, Home Economics, Industrial Arts, Mathematics, Music, Philosophy, Physical Education—The Dance, Physics, Psychology, Sociology-Anthropology, Speech.

FREE ELECTIVES

The minimum of 23 uncommitted credits may be used by the student for exploration, greater breadth, or additional specialization.

The Junior College Division

Carefully planned program of study have been developed under this division to meet the needs of students who are not concerned with teacher education or a full four-year program at this institution.

Two years of general studies with a wide range of electives are available. Chiefly, however, the work of this division is designed for those who plan more advanced specialized study in other colleges and universities. Many such students prefer to begin their college careers in such an institution as Western Washington State College, completing one or two years for advanced standing before transferring to a professional school.

A number of specific programs have been developed in close collaboration with Washington State University and the University of Washington.

It is to be clearly understood that in no sense does the College maintain professional schools outside of teacher education. However, students contemplating transfer to one or other of these institutions in the fields listed can, by taking the appropriate courses, transfer without loss of credit.

One or two-year programs lead to advanced standing in the following fields:

Agriculture	Home Economics	Pre-Medical Technology
Architecture	Nursing	Pre-Medicine and
Business Administration	Pharmacy	Pre-Dentistry
Engineering	Pre-Journalism	Pre-Occupational Therapy
Fisheries	Pre-Law	Pre-Physical Therapy
Forestry		Pre-Veterinary Medicine

The NURSING CURRICULUM is conducted in cooperation with a local nurses' training center; it includes chemistry, anatomy, microbiology, physiology, dietetics, and a course in English. For further information, communicate with the Director, School of Nursing, St. Joseph's Hospital, Bellingham, or Dr. Meribeth Mitchell, Biology Department, WWSC.

See 1961-1962 Schedule of Classes for first-year pre-nursing program for students planning to transfer to other institutions.

Special Departments and Services

The Library

Plans are under way for an addition to the library for housing the collection of 100,000 books and periodicals which offer opportunity for study and research. Some 5000 volumes are added each year; 544 periodicals are received currently. A special unit of the main collection is the large group of books on various phases of education. Another important grouping of 13,000 volumes is the library for the Campus School. As a member of the Pacific Northwest Bibliographic Center, the library supplements its resources through inter-library loans, making available much other material for students and members of the faculty.

The library is open from 7:45 a. m. to 10:00 p. m. Monday through Thursday, 7:45 a. m. to 5:00 p. m. Friday; 2:00 p. m. to 6:00 p. m. Saturday and Sunday.

The Audio-Visual Center

The Audio-Visual Center serves the entire instructional program of the College by:

Maintaining and operating a library of instructional materials and equipment, and of reference files on such materials and equipment as may be available elsewhere and providing faculty with reference services.

Arranging for the rental or purchase of instructional materials at the request of faculty.

Providing consultant, guidance, and evaluative services to college personnel, prospective teachers, the public schools, and the community in the purchase, use, and maintenance of instructional materials.

Maintaining facilities to serve the faculty and prospective teachers in the production of instructional materials.

Extension Services

The College makes its resources available for those adults who wish to continue their formal or informal education. Many community organizations and agencies are concerned with programs in adult education. The singular role of the College is to stimulate and assist adults in a wide range of educational activities which require the resources that only a college can provide.

The College invites interested adults to inquire about study opportunities currently available. Information may be obtained from the Office for Extension Services. Individuals may register for correspondence and extension classes or evening study opportunities by mail, at the Extension Office, or at the first meeting of a class.

Correspondence Courses: This Office coordinates the program of course offerings available by correspondence. The courses parallel certain of the offerings given in residence. They are in all cases conducted by regular members of the teaching staff. A special bulletin concerning all phases of correspondence study may be had upon request.

Extension and Night Courses: A considerable number of the courses listed in the College Catalogue are available at night on campus or in the home communities of teachers and other students. These courses are taught by regular members of the staff, occasionally with the aid of resident assistants. The standards and requirements are the same as for the regularly conducted college offerings. Extension and night courses may be made available to any student group sufficiently large to warrant instruction.

Evening Study: In line with its resources, the College makes available general study offerings for adults. These are open to all who are interested in a liberal education and include studies in Arts and Crafts, English, History, Languages, Literature, Music, Philosophy, Psychology, Pre-School and Parent Education, Public Affairs, Science and others. No previous educational training is required, and no formal credits are awarded. Evening study is open to all interested adults regardless of educational background, age or sex. Evening study opportunities are available to any groups of adults sufficiently large to guarantee continuation.

Psychological Services and Research Center

The Psychological Services and Research Center provides testing, counseling and research services.

It has responsibility for the testing program including: (a) pre-entrance tests, (b) qualifying tests, (c) tests available to individuals as an aid to guidance. It also assists the faculty in the construction of objective tests, the evaluation of individual test items, the scoring of tests, and the interpretation of results.

The Center provides professional counseling for students either on their own request or on the referral of a faculty member, physician, or family.

Research activities include:

Conducting studies dealing with the work of the College, such as problems of scholarship, curriculum, and student personnel.

Cooperation with schools and other agencies in matters of testing, diagnosis, and remedial planning.

Providing consulting and planning assistance to teachers, schools, and community agencies in work which includes educational measurement or experimental technique.

Collaborating with members of the faculty in special investigations.

Assisting graduate students in the organization of research studies, the tabulation of data, and the use of statistical techniques for reporting and evaluating research.



Departmental
Concentrations
and Courses

Departmental Concentrations and Courses

Course Numbers

Courses numbered from 100 to 299 are classified as lower division. The first digit generally indicates the year for which the course is intended.

- 0- 99 sub-college courses, without credit
- 100-199 first-year courses
- 200-299 second-year courses
- 300-399 third-year courses
- 400-499 fourth-year courses
- 500-599 open only to graduate students

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

In general, the numbers 300, 400, and 500 are used to designate individual study or 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.

Course numbers which have been changed from the previous Catalogue are listed in parentheses.

DEPARTMENT of ART

Faculty

Associate Professors: Collier, Kelsey, Peck, Plympton (Chairman).

Assistant Professors: Morsh, Proweller,

Instructors: Foss, Imhoff, Tucker, Wagner.

The Art Department performs three functions in the college program. It provides an art major for students who want to specialize in the field and earn an Arts and Science Degree. It provides a field major for students preparing to teach art. It also makes a cultural contribution to the general education of all participating students.

Teacher Education

All students enrolled in teacher education, elementary or secondary, are encouraged to elect Art 101, 102 or equivalent for introductory understanding of art, and also Art 260 Basic Design and Art 320, 321 or 325 Art in the School.

Students planning to teach Art in the elementary or secondary schools should plan their schedules well in advance in order to complete most or all of the required work in art, including Art 320 or 321 or 325 before their student teaching in this subject.

Concentrations

FIELD MAJOR A (with elementary school emphasis)

Two courses from Drawing: Art 151, 152, 153.

Ceramics and Sculpture: Art 210 and 212.

Color and Design: Art 260, Display 272.

*Art Education: Art 320 or 325.

Water Color Painting: Art 355 and Art History 380.

Additional courses to total 45 credits including ten credits in art education.

At least 20 of the 45 credits must be in upper division courses.

FIELD MAJOR B (with secondary school emphasis)

Art 151, 152, 153, 210, 212, 260, 321*, 351 or 355, 361 or 362, and 380.

Additional courses to total 45 hours including 20 credits in upper division courses, and one sequence of 9 credits from:

Design and Crafts: 461, 462, 430.

Ceramics and Sculpture: Art 211, 310, 430.

Commercial Art: Art 271, 272, 371, 471, 472, 451.

Drawing, Composition and Painting: Art 252, 253, 451, 453, 490, 491, 351, 352, 353, 354, 452, 355, 356, 357, 452.

Interior Design: Art 240, 241, 340.

FIELD MINOR A (with elementary school emphasis)

Three credits from Drawing: Art 151, 152, 153.

Ceramics or Sculpture: Art 210 or 212.

Design: Art 260.

Display: Art 272.

*Art Education: Art 320, 325, or 355.

Additional electives under advisement to total 20 credits.

FIELD MINOR B (with secondary school emphasis)

Three credits from Drawing Art 151, 152 or 153.

Ceramics and Sculpture: Art 210 and 212.

Design & Color: Art 260.

*Art Education: Art 321.

Additional electives under advisement to total 20 credits.

*Art in Education, whether Art 320 or 321 or 325, must be taken before the quarter of student teaching in art.

Arts and Sciences

Those students working in the Arts and Science program require 60 credits and should begin art courses early in their college careers. They have the opportunity to direct their activities in several specialized fields, painting, design and crafts, ceramics, sculpture, interior design, or commercial art.

Concentrations

MAJOR:

Art 151, 152, 153, 210, 212, 260, 270, 361, 362, 380, 490 and one upper division course in painting.

Two or more sequences selected from:

Drawing, Painting and Composition 252, 253, 451, 453, 490, 491, 351, 352, 354, 452, 355, 356, 357, 452.

Design and Crafts: 361, 362, 461, 462, 430.

Ceramics and Sculpture: 211, 310, 410.

Interior Design: 240, 241, 340.

Commercial Art: 271, 272, 371, 451, 471, 472, I.A. 408.

Art Education 320, 321, 325, 421, 422, 423, 425, 426, 429.

Additional courses to total not less than 60 credits.

Supporting courses: 15 credits selected under advisement from philosophy, foreign languages, industrial arts, or home economics that are related to sequences in the major.

MINOR:

Two courses from 151, 152, 153, 260, and 380, with electives under advisement to total 24 credits.

Courses

101. **ORIENTATION** 3 credits. Introduction to the place and scope of art in contemporary society.
102. **INTRODUCTION TO ART** 2 credits. Exploration of various types of art expression and their relation to contemporary living.
151. **BASIC DRAWING** 3 credits. Drawing techniques and pictorial space concepts using a variety of media.
152. **LIFE DRAWING I** 3 credits. Drawing the human figures in a variety of techniques to interpret contour, gesture, and volume.
153. **DRAWING AND COMPOSITION I** 3 credits. Drawing, employing a variety of media and types of composition with emphasis on landscape.
210. **SCULPTURE I** 3 credits. Techniques of modeling in clays with emphasis on plastic design.
211. **SCULPTURE II** 3 credits. Prerequisite: Art 210. Extension of the techniques learned in Art 210 to develop a more thorough understanding of sculptural problems.
212. **CERAMICS I** 3 credits. Basic ceramics with emphasis on the use of materials and techniques. Laboratory practice is provided in the hand-building processes, non-technical glaze composition, kiln stacking, and firing.
213. **CERAMICS II** 3 credits. Prerequisite: Art 212. Extension of Ceramics I to include experiments in glazes.
240. **INTERIOR DESIGN** 3 credits. Prerequisites: Art 101 or 102 and 260. Basic study of plans, elevations, and colors for home furnishing.
241. **INTERIOR DESIGN** 3 credits. Prerequisite: Art 240. Further study in interior design, emphasizing the group living area in home furnishing.
252. **LIFE DRAWING II** 3 credits. Prerequisite: Art 152. Drawing of the figure in pencil, charcoal, and ink. This course is a continuation of Art 152 involving more advanced problems.
253. **DRAWING AND COMPOSITION II** 3 credits. Prerequisite: Art 153. Advanced drawing, in which the student experiments with various types of composition. Media: pencil, conte crayon, charcoal, and pastels.
260. **BASIC DESIGN** 5 credits. Development of the student's judgment and abilities to use design and color in various materials and crafts.
270. **LETTERING I** 2 credits. Practice in pen, brush, and show card lettering, employing various styles in contemporary advertising.
271. **LETTERING II** 2 credits. Prerequisite: Art 270. Continuation of Art 270, with emphasis on layout and poster design.
272. **FUNDAMENTALS OF DISPLAY** 2 credits. Design principles, materials, and techniques for planning and executing bulletin boards and three-dimensional display.
300. **SPECIAL PROBLEMS** Variable credit. Prerequisites: 15 credits in Art and consent of the instructor. Problems selected and credit earned vary with the interests and needs of the individual student.
304. **JEWELRY DESIGN** 3 credits. Prerequisite: Art 260 or permission of instructor. Design and construction of contemporary jewelry in various metals, with emphasis on silver. The work of the course includes the setting of stones. Also offered as Industrial Arts 304.

310. **SCULPTURE III** 3 credits. Prerequisites: Art 152, 210 and 260. Problems in various techniques for creating forms in space involving laboratory practice in clay modeling, wood, and stone carving.
312. **CERAMICS III** 3 credits. Prerequisites: Art 212, and 260. Continuation of Art 212 with emphasis on the use of form and design, and the study of clay bodies. Laboratory practice in the use of the potter's wheel and decorative techniques is provided.
320. **ART IN THE SCHOOL** 3 credits. Prerequisite: Art 260. A study of child development in art from kindergarten through junior high school. Observation of classroom activities in art and experimentation with materials usually available for use in schools are among the activities.
321. **ART IN THE SECONDARY SCHOOL** 3 credits. Lecture, discussion, laboratory, and observation relating to the philosophy and techniques of art in the secondary school.
325. **ART EDUCATION** 5 credits. Prerequisite: Art 101 or 102. Not recommended to students who have credit for Art 260. Child development in art from kindergarten through high school. Problems in design, drawing, and painting as they relate to school situations are considered.
340. **INTERIOR DESIGN** 3 credits. Prerequisite: Art 241. Three dimensional study of color and design as related to all aspects of home decoration and furnishing.
351. **ELEMENTARY OIL PAINTING** 3 credits. Prerequisites: Art 151, 152, 153, 260. Fundamental technique of painting and use of color.
- 352, 353, 354. **OIL PAINTING** 3 credits each. Prerequisites: Art 351. Practice in the technique of oil painting.
- 355, 356, 357. **WATER COLOR PAINTING** 3 credits each. Prerequisites: Art 151 or 153 and Art 260. Practice in the techniques of water color in compositions of still life and landscape.
361. **DESIGN AND COLOR** 3 credits. Prerequisite: Art 260. Design, stressing two-dimensional qualities, textures, and color, and using the silk screen medium.
362. **DESIGN AND COLOR** 3 credits. Prerequisite: Art 260. Continuation of experiments and applications in the study of color and design with emphasis on three-dimensional qualities.
371. **COMMERCIAL DESIGN I** 3 credits. Prerequisites: Art 151, 152, 260, 270. Analysis and design of commercial products. Laboratory practice in the use of the air-brush is provided.
380. **HISTORY OF ART** 3 credits. Survey of the representative masterpieces of the ancient, medieval, and modern periods.
400. **SPECIAL PROBLEMS IN ART** 2 to 5 credits. Prerequisites: senior status and consent of the instructor. Individual instruction for students who wish to undertake special projects under supervision.
- 400M. **ART WORKSHOP IN MEXICO** 6 credits. Carefully planned itinerary in Mexico. Visits to museums and art centers and study of archeology, history, and folklore are planned.
407. **PUPPETRY** 3 to 6 credits. Prerequisite: 15 credits in Art, Industrial Arts and Speech or by permission of instructor. Construction of puppets, various types of stages and scenery.
408. **GRAPHIC DESIGN** 6 credits. Prerequisites: Art 260 and 270 or Industrial Arts 340. For Industrial Arts students. The study and application of the principles of layout, design and printing in relation to their commercial applications. Also offered as Industrial Arts 408.

410. **SCULPTURE IV** 3 credits. Prerequisite: Art 310. Creation of original works in wood, metal, clay, stone, plaster, plastics, or other media. A survey of sculpture and a study of important artists are required.
412. **CERAMICS IV** 3 credits. Prerequisites: Art 212, 312. Continuation of study in ceramics with emphasis on functional design and historical background. Laboratory practice in the mixing of glazes, stains, slips, clay bodies, and the stacking and firing of kilns is provided.
421. **ART IN THE SCHOOL** 3 credits. Prerequisites: Art 320 or 321. Continuation of Art 320 with emphasis on the handling of color and design in terms of their use on both elementary and secondary levels.
422. **MATERIALS OF ART EDUCATION** 4 credits. Prerequisites: Art 320 or 325 and Industrial Art 350. Media, reference material, and subject matter related to art and its integration with other school subjects.
423. **EVALUATION OF CHILD ART** 2 credits. Art problems suitable for children at various stages of development. Evaluation of children's work and the uses of materials usually available for schools are considered.
425. **DRAWING AND PAINTING FOR THE SCHOOL** 4 credits. Prerequisites: at least one course in art and teaching experience. Various painting media used in relation to school problems, group projects, and individual development. Experiments in mural painting, water color, and tempora are carried on.
426. **DEVELOPMENTAL ART EXPERIENCES** 3 credits. Prerequisite: teaching experience, student teaching, or permission of the instructor. For teachers, with stress on understanding the development of children, especially in the elementary and junior high school. It provides practical experience with materials and a teaching philosophy that considers art in the school program.
429. **ART WORKSHOP** Variable credit. Group endeavor for the elementary or secondary classroom teacher. Using workshop procedure, the class explores (a) art materials, old and new, and (b) methods of adapting art work to the individual differences of children.
430. **DESIGN AND CRAFTS** 3 credits. Prerequisites: Art 260 and 361 or 362. Study and application of color and design to crafts using both modern and traditional techniques and materials.
431. **DESIGN AND CRAFTS** 3 to 5 credits. Prerequisite: Art 430. A continuation of Art 430, with continued emphasis on achievement in good design and fine craftsmanship.
451. **ILLUSTRATION** 3 credits. Prerequisites: Art 151, 152, 260 and 270. Techniques of illustration.
452. **LIFE PAINTING** 3 credits. Composition and painting using a variety of media with the human figure as the subject.
453. **DRAWING** 3 credits. Prerequisite: one drawing course or graduate status and permission of the instructor. Drawing and composition using a variety of subjects. The media employed are pencil, charcoal, conte crayon, pastels, and ink.
461. **ADVANCED DESIGN** 3 credits. Prerequisite: Art 361. Color and Design in two or three media, with emphasis on two dimensional work.
462. **ADVANCED DESIGN** 3 to 5 credits. Prerequisites: Art 361 or 362. A continuation of Art 362, with emphasis on the relationship between abstract and functional design in three-dimensional work.
471. **COMMERCIAL DESIGN II** 3 credits. Prerequisites: Art 371 and Industrial Arts 350. A continuation of Art 371 involving laboratory practice in the use of air-brush techniques combined with photography, and the organization and presentation of final products.

472. **POSTER AND DISPLAY** 3 credits. Prerequisites: Art 270 or 271 and 260 or equivalent. Effective display of visual materials. The course includes experimentation in design in posters, bulletin boards, layout, and the production and printing of a poster design.
480. **HISTORY OF AMERICAN ART** 3 credits. Art in America from colonial times to the present day.
482. **HISTORY OF MODERN ART** 3 credits. Growth of modern art from the Impressionist movement to the present day.
490. **COMPOSITION** 3 or 5 credits. Prerequisites: Art 151, 152, and 260, or Art 153, and 361, or Art 351, or Art 355. Practice in the development of good structure in line and mass for picture composition.
491. **COMPOSITION** 3 credits. Prerequisite: Art 490. Color qualities in relation to pictorial composition.
500. **SPECIAL PROBLEMS IN ART EDUCATION** 2 to 4 credits. Prerequisite: graduate standing, teaching experience and 27 credits in art including Art 260 and Art 320 or equivalent. Study under supervision of a selected problem related to the teaching of art.
520. **APPRAISAL OF DRAWING TECHNIQUES** 4 credits. Prerequisites: graduate standing, teaching experience and 27 credits in art including Art 260 and Art 320 or equivalent. Approaches to the teaching of drawing through experiments and research.
521. **COMPARATIVE TECHNIQUES IN DESIGN AND COLOR** 4 credits. Prerequisites: graduate standing, teaching experience, and 27 credits in art including Art 260 and 260 or equivalent. Research in a number of techniques and materials for teaching design and color.
522. **CURRICULUM PLANNING** 4 credits. Prerequisites: graduate standing, teaching experience, and 27 credits in art including Art 260 and 320 or equivalent. Ways to plan, develop, and evaluate art in relation to the total curriculum.
540. **RESEARCH IN ART MATERIALS** 2 to 4 credits. Prerequisites: graduate standing and teaching experience, Art 310 and Art 312 or permission of instructor. Research related to three-dimensional expression in art as a development factor.
550. **RESEARCH AND SEMINAR IN PICTORIAL EXPRESSION** 2 to 4 credits. Prerequisites: graduate standing, teaching experience, Art 320, 351, or 355. Concepts, media, and techniques of cultural pictorial expression.

DEPARTMENT of BIOLOGY

Faculty

Professor: Sundquist, (Chairman).

Associate Professors: Borron, Floro, Kirkpatrick, Martin, Mitchell, Platt.

Assistant Professors: Kraft, Schwemmin.

Program Planning

It is strongly recommended that a student planning a program involving a major or minor in biology consult an adviser in the Biology Department at the beginning of the freshman year so that sequences of courses can be established. The following program is suggested for the first two years:

	Fall	Winter	Spring
First Year	Chem. 121 or 125 or Phys. Sci. 101 Mathematics as recommended	Zoology 261 Biology 104	Zoology 262
Second Year	Botany 252	Botany 251	Biology 301

A transfer student who has not had any work in the department must take at least 5 credits in residence for a minor or 11 credits for a major, under departmental advisement.

Teacher Education

For students planning to teach in the elementary or junior high school the General Science major or minor is recommended (see page 206). Courses may be selected under advisement from the three divisions of biology as well as from the science education courses which are specially adapted for the classroom teacher. Students wishing greater specialization in biology may select a field major or minor in biological science (see page 106).

There is an opportunity for graduate work leading to the degree of Master of Education with major emphasis in science education. This program is intended to equip master teachers as well as the specialist interested in working as a science education consultant in the public schools.

Concentrations

FIELD MAJOR (for the elementary school teacher):

In addition to the General Education requirements, the following courses are required:

- Biology 247 Health Science 3 credits.
- Biology 301 Principles of Ecology 5 credits.
- Botany 251, 252 General Botany 10 credits.

10 credits to be selected under advisement from the following:

- Zoology 241 Human Anatomy 5 credits.
- Zoology 243 Human Physiology 5 credits.
- Zoology 261, 262 General Zoology 5 credits.

17 credits to be selected under advisement from the following:

- Biology 240 Marine Biology 3 credits.
- Biology 401 Fresh Water Biology 5 credits.
- Biology 453 Montane Biology 3 or 5 credits.
- Biology 474 Preparation of Biological materials for classroom use 3 credits.
- Botany 253 Plants of the Northwest 3 credits.
- Botany 352 Systematic Botany 5 credits.
- Botany 456 Algae 5 credits.
- Botany 458 Mosses and Ferns 5 credits.
- Zoology 263 Nat. Hist. Animals of Northwest 3 credits.
- Zoology 264 Birds of Washington 3 credits.
- Zoology 266 Insects of Northwest 3 credits.
- Zoology 324 Entomology 5 credits.
- Zoology 361, 362 Ornithology 3 credits.
- Zoology 363 Mammalogy 5 credits.
- Zoology 461 Marine Invertebrae Zoology 5 credits.

FIELD MAJOR (for high school junior and senior teachers):

General education requirements in the sciences: Chemistry 121 or 125 in lieu of Physical Science 101; Biology 104; General Education 102 and 105.

Botany 251 or Zoology 261 (preferably both); Botany 252, Zoology 262; Biology 301.

At least 5 credits from Biology 345, 371, 471, 473, 477, 478, Botany 479, Zoology 366, 36B.

At least 5 credits from Biology 401, 402, 453, Botany 253, 342, 456, 458, Biology 474, Zoology 263, 264, 266, 324, 361, 362, 363, 461.

Biology 493.

General Science 405.

Additional electives from the courses above or from other biological science courses, chosen under advisement, to total not less than 45 credits.

Note: It is strongly recommended that all biological science majors include Chemistry 121-122 (or 125 and 251), and Geology 211 in their programs.

FIELD MINOR (a second teaching field for elementary teachers and junior and senior high school teachers):

General Education requirements in the sciences: same as for major.

Biology 301, Botany 252, and/or Zoology 262.

At least 5 credits from Biology 345, 371, 471, 473, 477, 478, Botany 479, Zoology 366, 368.

3 to 5 credits from Biology 401, 402, 453, 474, Botany 253, 352, 456, 458, Zoology 263, 264, 266, 324, 361, 362, 363, 461.

Selected courses under departmental advisement to total with the above minor requirements not less than 25 credits. Biology 383 or 493 is recommended as an elective.

Arts and Sciences

For the person not wishing to teach in the public schools courses are offered leading to a major or minor in biological science (see below). While it is required that a student have work in both the botanical and zoological aspects of biology, it is possible to select courses to emphasize whichever area the student prefers. The major in biology is recommended to the student wishing to enter various professional schools in dentistry, medicine, and veterinary medicine, as a basis for work in some aspects of forestry and agriculture, for employment by several governmental agencies, and as a basis for graduate work in the various biological sciences.

Since biology is becoming increasingly based on chemistry and physics, it is recommended that a biology major carry a minor in one of these two areas and that he not neglect mathematics.

Concentrations

MAJOR: General education requirements in science (Chemistry 121 or 125 in lieu of Physical Science 101, Biology 104, General Education 102 and 105).

Fifty additional credits selected under departmental advisement to include: (a) Biology 301, Botany 251 and 252, Zoology 261 and 262; (b) 10 credits from Biology 345, 371, 471, 473, 477, 478, Botany 479, Zoology 366, 368; (c) 10 credits from Biology 402, 453, Botany 352, 456, 458, Zoology 324, 361, 362, 363, 461; (d) General Science 405; (e) electives from above or other biological science courses or Geology 316.

Supporting courses: (a) 5 credits in Anthropology or Sociology; (b) Chemistry 122 and 251 or 352; (c) Geology 211; (d) at least 15 credits in Physics, 15 in a foreign language, and additional mathematics including statistics are strongly recommended.

MINOR: General education requirements in science (same as for major). Additional credits to be selected from either of the following:

1. 25 credits in Biological Science selected under departmental advisement to include Botany 252 and Zoology 262.
2. 25 credits in Biological Science selected under departmental advisement to include: (a) Zoology 261 and 262; (b) 5 credits from Biology 371, 471, 477, 478, Zoology 366, 368; (c) 5 credits from Biology 402, Zoology 324, 361, 362, 363, 461; (d) 5 credits from Biology 345 or Zoology 243.

Nurses Training

(See page 93)

General Education

With the exception of Physical Science 101, all students, including biology majors and minors, are required to include the general education science courses in their programs. It is suggested that Chemistry 121 or 125 be substituted for Physical Science 101.

Courses In Biology

104. **PRINCIPLES OF GENERAL BIOLOGY** 4 credits. Prerequisite: Physical Science 101 or Chemistry 121 or 125. Major concepts of biology and their contributions to man's thinking and culture. Properties common to all life are specially emphasized. Answers are sought to such questions as: What is life? How is it perpetuated? How does it change? Attention is devoted to the methods by which the science of biology is advanced. This course includes those basic concepts of cell physiology, growth, development and speciation commonly included in beginning botany and zoology courses. Students majoring or minoring in biology should consider Biology 104 as a prerequisite to botany and zoology courses.
240. **MARINE BIOLOGY** 3 or 5 credits. Prerequisite: Biology 104 or its equivalent. Study of plants and animals of the seashore. Collecting, preparation of specimens, identification, habits of animals, and ecology will be included. Several Saturday field trips will be made. Not open to students having credit in Zoology 461 or Botany 456.
245. **GENERAL MICROBIOLOGY** 5 credits. For students of Nursing, Home Economics, Education and others with minimal background in Chemistry who are interested in a one-quarter general course.
247. **HEALTH SCIENCE** 3 credits. Prerequisite: Biology 104 or equivalent. Health information which affords a base for intelligent guidance in the formation of health habits and attitudes. Stress is laid upon how the body functions.
300. **SPECIAL PROJECTS IN BIOLOGY** 2 to 5 credits. Prerequisite: 15 credits in biological science and consent of the instructor. Special projects under supervision.
301. **PRINCIPLES OF ECOLOGY** 5 credits. Prerequisites: 10 credits in biological science. Factors of the environment as they affect the distribution of life. Basic principles and concepts are derived from experiences in the field through the study of fresh water, salt water, and land communities. Not open to students having credit in Zoology 461 or 463.
345. **FUNDAMENTALS OF MICROBIOLOGY** 5 credits. Prerequisites: Chemistry 121, 122, 351-352 or 251, and 10 credits in Botany or Zoology, or permission of instructor. Comparative morphology, taxonomy, physiology and relationships of microbes: bacteria, yeasts, molds and viruses. This is a course for students majoring in biology and others interested in the biological and chemical aspects of microbial life. Formerly Health Science 345.
371. **GENETICS** 5 credits. Prerequisite: Biology 104. Basic theories, principles, and laws of heredity; a study of recent investigations with special reference to human development and social improvement. Laboratory experiments are conducted with *drosophila*.

383. **BIOLOGICAL SCIENCE FOR THE ELEMENTARY SCHOOL** 3 credits. Prerequisite: Biology 104. Philosophy and learning experiences are developed through readings, lectures, discussions, demonstrations, and field trips, while the laboratory work develops skill in working with materials suitable for the elementary school. Formerly Science Education 383.
399. **SEMINAR IN BIOLOGY** 1 credit. Prerequisite: 25 credits in biological sciences and permission of the instructor. Outstanding developments, past and present, in the biological sciences.
400. **SPECIAL PROJECTS IN BIOLOGY** 2 to 5 credits. Prerequisite: consent of the instructor. Special projects under supervision.
401. **FRESH WATER BIOLOGY** 5 credits. Prerequisite: 10 credits in biology. Ecology of plant and animal organisms of inland waters. Content derived from field studies of local lakes, streams and rivers.
402. **LIMNOLOGY** 5 credits. Prerequisites: Chemistry 121 or 125, Botany 252, and Biology 301. Physical and chemical characteristics of fresh water in relation to biotic communities.
447. **COMMUNITY HEALTH AND HYGIENE** 3 credits. Prerequisites: ten hours of a biological science. Practical application of the principles of personal and group hygiene; analysis of community problems of health and sanitation; study of the application of the pure food and drug acts; examination of national and international health problems; and study of the contributions of the great personalities who have worked in the fields of health, sanitation and medicine. Sophomores may take this course by permission of the instructor. Formerly Health Science 447.
453. **MONTANE BIOLOGY** 3 or 5 credits. Prerequisites: Biology 301, Botany 252 and Zoology 262. Flora and fauna of the Cascade Mountains. Intensive field work at different elevations, laboratory study of collected material, and lectures are intended to give the student an understanding of the variety of plants and animals of the Cascades and of their distribution and interactions with the environment. A number of Saturday field trips are required.
471. **PHYSIOLOGICAL GENETICS** 5 credits. Prerequisite: 10 credits chemistry and one course in genetics. Structure and chemical composition of genetic material. Genetic concepts derived from research on virus, bacteria, yeasts, and molds. Recently discovered aspects of the biochemical genetics of man which apply to the nature of gene function. Laboratory experiments to illustrate selected techniques from physiology and microbiology which are applicable to genetic problems.
473. **HISTOLOGICAL TECHNIQUES** 5 credits. Prerequisite: 10 credits in biology. Preparation of microscopic slides, both of plant and animal tissues. A student completing this course in good standing should have a basic set of microscope slides of his own preparation.
474. **PREPARATION OF BIOLOGICAL MATERIALS FOR CLASSROOM USE** 3 to 5 credits. A course for elementary and secondary classroom teachers in the techniques of preserving, mounting, displaying, and caring for various biological materials. Students in this course have actual experience in the preparation of classroom materials, each according to individual needs. These may range from the care of plant, animal, insect, and bird specimens brought to the classroom by children to the preparation of permanent mounts of microscopic materials and the use of plastic in the display of specimens.
- 477, 478. **GENERAL CELLULAR PHYSIOLOGY** 5 credits each. Prerequisites: 20 credits in biological sciences, Chemistry 121-122 and 251 or 351-352, or permission of the instructor. Structural and functional basis of living matter, the cell. This includes a study of energy transformations in living systems, the transport of water and solutes, the characteristics of excitable tissue, the mechanism of muscle contraction, and the effect on and emission of organisms of light.

493. **BIOLOGICAL SCIENCE FOR THE JUNIOR AND SENIOR HIGH SCHOOL** 3 credits. Prerequisite: 15 credits in biological science. A course concerned with the biological science program in the secondary school. Philosophy and learning experiences are developed through readings, lectures, and discussions, demonstrations, and field trips, while the laboratory work provides opportunities to gain knowledge and skill in working with materials of the biological sciences. Formerly Science Education 493.
500. **SPECIAL PROJECTS IN BIOLOGY** 2 to 5 credits. Prerequisites: graduate standing and consent of the instructor. This course is available to students who wish to undertake special projects under supervision.
599. **SEMINAR IN BIOLOGY** 2 credits. Prerequisite: 40 credits in biology. Selected problems in biology with emphasis on current literature.

Courses In Botany

251. **GENERAL BOTANY** 5 credits. Plants as living organisms; a study of the structures and functions of typical spermatophyte plants. A study of heredity and the biology of the cell are included in Biology 104 and are not repeated here.
252. **GENERAL BOTANY** 5 credits. Prerequisite: Botany 252 may be taken without Botany 251 as a prerequisite. Comparative study of the major phyla of the plant kingdom, with a view to interpreting present structure in terms of ecological adaptation and past evolutionary heritage. The basic study of evolution is included in Biology 104, which should be taken before Botany 252.
253. **PLANTS OF THE NORTHWEST** 3 credits. Primarily for teachers who desire to become familiar with the common plants of the local region. Instruction includes the identification and field recognition of plants, and an understanding of their reproduction and adaptations to their environment. Field trips furnish the materials for the course. Students majoring in biological science see Botany 352. Formerly Science Education 450.
352. **SYSTEMATIC BOTANY** 5 credits. Prerequisite: Botany 252. Historical survey of classification systems; the use of taxonomic keys in the identification of plants; the evolutionary development of flowering plants; the recognition of common plants and plant communities. Field trips furnish materials for the courses.
456. **ALGAE** 5 credits. Prerequisite: 10 credits in biology. Collection, identification, classification, distribution, and economic importance of marine and fresh water algae. Field trips are a required part of the course.
458. **MOSSES AND FERNS** 5 credits. Prerequisite: 10 credits in biology. Collection, identification, distribution, and evolution of mosses and liverworts, and ferns and their allies. Numerous field trips are a regular part of and furnish the material for the course.
479. **PLANT PHYSIOLOGY** 5 credits. Prerequisite: Biology 478. Cell physiology pertaining to plants and mineral nutrition, water economy, soils, auxins, and other items of special importance to plant growth.

Courses In Zoology

141. **ANATOMY AND PHYSIOLOGY** 5 credits. First part of a two-quarter sequence: structure and function of the human body, including the physics and chemistry of protoplasm; the cell; and the skeletal, muscular, and circulatory systems. The cat is dissected in the laboratory. The sequence is designed for students in the health sciences area: student nurses, laboratory technicians, and physiotherapists.

143. **ANATOMY AND PHYSIOLOGY** 5 credits. Prerequisite: Zoology 141. Second part of a two-quarter sequence: structure and function of the human body, including detailed study of the respiratory, digestive, excretory, endocrine, nervous and reproductive systems.
241. **HUMAN ANATOMY** 5 credits. Biology 104 is recommended as a preceding course. For teacher education, physical education, and psychology students. Charts and models of the human body are used as instructional aids. Cat dissection is an important phase of the course. Not open to students who have had Zoology 141.
243. **HUMAN PHYSIOLOGY** 5 credits. Biology 104 is recommended as a preceding course. For teacher education, physical education, home economics, and psychology students. Normal functions of the human body and the various bodily processes which aid in adjustment. Significant advances in the sciences of physiology and medicine are considered in the discussions. Laboratory work provides suitable illustrations of principles of physiology and opportunities for consideration of individual interests. Not open to students who have had Zoology 143. Formerly Health Science 243.
261. **GENERAL ZOOLOGY** 5 credits. Prerequisite: Biology 104. Survey of the invertebrate phyla, protozoa through the annelids and molluscs.
262. **GENERAL ZOOLOGY** 5 credits. Prerequisite: Zoology 261 or Biology 104 or Biology 204. Survey of the arthropod phylum and the chordate line.
263. **NATURAL HISTORY: ANIMALS OF THE NORTHWEST** 3 credits. For teachers interested in using the living materials of the local environment. Higher animals of the Pacific Northwest, their identification, life histories habits, and distribution. Field trips supplement the classroom work. (Formerly Science Education 460)
264. **BIRDS OF WASHINGTON** 3 credits. Identification of our common birds, knowledge of their life habits, structural adaptations, problems of food supply, methods of protection, economic importance, and migration. The course is conducted both in the field and laboratory. (Formerly Science Education 464)
266. **INSECTS OF THE NORTHWEST** 3 credits. Non-technical instruction for teachers in the elements of insect classification, identification, life histories, and habits. Field trips furnish much of the materials for study. Formerly Science Education 465.
324. **GENERAL ENTOMOLOGY** 5 credits. Prerequisite: Zoology 262. An introduction to the study of insects, their metamorphoses, morphology, physiology, classification, identification, economic importance, and control. Field trips to obtain specimens for study and preparation of a representative insect collection.
361. **ORNITHOLOGY** 3 credits. Prerequisite: Biology 104 or equivalent. Structural and morphological adaptations of birds, their evolution, classification, distribution, and economic importance. Field trips are concerned with the identification of permanent and winter residents.
362. **ORNITHOLOGY** 3 credits. Prerequisite: Biology 104 or equivalent. The migrations, foods, and nesting behavior of birds. The need for and types of bird protection are also studied. Field work emphasizes the spring migrants and the accurate recording of observations. It is recommended that Zoology 361 be taken before Zoology 362.
363. **MAMMALOLOGY** 5 credits. Prerequisite: Zoology 262. Life habits, identification, distribution, and classification of mammals of the Northwest. Laboratory work stresses methods of collection in the field, preparation of study skins, and the use of taxonomic keys.
366. **COMPARATIVE VERTEBRATE ANATOMY** 5 credits. Prerequisite: Zoology 262. Comparative study of the morphology and evolution of the organ systems of the major vertebrate groups.

368. **GENERAL VERTEBRATE EMBRYOLOGY** 5 credits. Prerequisites: Biology 104 and Zoology 262. Principles of the development of the vertebrates; laboratory study of the embryos of the chick and pig with application to human development.
461. **MARINE INVERTEBRATE ZOOLOGY** 5 credits. Prerequisite: Biology 301 and Zoology 261. Laboratory and field study of local marine invertebrates. Biological principles are demonstrated and techniques for the study of marine biology are elaborated throughout this course. Consideration is given to life histories, structures, functions, and development, collection, and identification. Special emphasis is placed on examination of interrelationships of organisms to each other and to their environment.

DEPARTMENT of

ECONOMICS, BUSINESS and
GOVERNMENT

Faculty

Associate Professors: Mayer (Chairman), Palmer, Wuest.

Assistant Professors: Egerer, Gambrell, Haglund, McAllister, Mitchell,
Neuber.

Instructor: Spratlen, Swedmark.

Concentrations in Economics

Arts and Sciences

MAJOR: Economics (Business)

Economics 101, 151, 152, 153, 201, 202, 271, 275, 311, 352, 375. Two courses selected from Economics 322, 333, 335, 411. Additional courses under advisement to total 60 credits.

Supporting Courses: Geography 207, History 360, Mathematics 101. Government 101, and Sociology 201 are strongly recommended.

MAJOR: Economics (General)

Economics 151, 152, 153, 201, 202, 275, 301, 311, 375. Additional upper division courses under advisement to total 50 credits.

Supporting Courses: Geography 207, History 360, Mathematics 101. Government 101 and Sociology 201 are strongly recommended.

MINOR: Economics (General)

Economics 201 and 202. Additional courses under advisement to total 25 credits of which at least 10 must be upper division.

Teacher Education

FIELD MINOR A:

Economics 101, 151, 201.

Additional courses under advisement to total at least 24 credits of which at least 10 must be at the 300 or 400 level.

FIELD MINOR B (for specialists in Business Education):

Economics 151, 152, 153, 201, 271. Those with acceptable equivalents may, under departmental advisement, complete the minor with courses elected from Economics 311, 335, 350, 353, 354, 355, 371, 411.

Concentrations in Business Education

Teacher Education

FIELD MAJOR:

The program of studies for teachers of business education consists of this field major taken in conjunction with a minor made up of courses drawn from the field of economics. The whole program constitutes a major-minor combination of 60 credits.

Required courses consist of: Business Education 115, 116, 117 or 215, 120, 121, 122, 201, 223 or 224, 241 or 242, 319, 320, 321, Economics 101.

Those who have taken typing and/or shorthand in high school are placed, under departmental advisement, as high in the sequence as their backgrounds permit. Additional courses under departmental advisement to complete the business education major may be drawn from Business Education 401, 471, 481.

FIELD MINOR:

Required: Business Education 319, 320. Under departmental advisement, additional courses in shorthand, typing, and secretarial practice to total 20 credit hours.

Arts and Sciences

MINOR:

Under advisement, courses in typewriting, shorthand, secretarial accounting, and secretarial practice to total 25 credits.

Concentrations in Government

Arts and Sciences

MAJOR:

Government 251, 252, and a minimum of eight credits in each of the following areas:

Foreign and Comparative Governments: 101, 304, 401, 402, 403, 404, 405, 406.

International Relations: 273, 375, 376, 472, 473, 480, 485; Economics 495.

Political Theory: 460, 461, 462, 463, 464.

A minimum of eight credits each in two of the following areas:

Public Law: 310.

Public Administration: 420, 421.

Political Dynamics: 440; Sociology 441.

State and Local Government: 233, 334.

Additional or alternate courses under departmental advisement to total 50 credits.

MINOR:

Government 251, 252 and a minimum of five credits each in three of the following areas:

Foreign and Comparative Governments: 101, 304, 401, 402, 403, 404, 405, 406.

Public Law: 310.

Public Administration: 420, 421.

State and Local Governments: 233, 334.

Political Dynamics: 440; Sociology 441.

Political Theory: 460, 461, 462, 463, 464.

International Relations: 273, 375, 376, 472, 473, 480; Economics 485.

Additional or alternate courses under departmental advisement to total 25 hours.

Teacher Education

FIELD MAJOR:

Government 251, 252, and a minimum of 8 credits in each of the following areas:

a. State and Local Government: 233, 334.

b. International Relations: 273, 375, 376, 472, 473, 480.

c. Foreign and Comparative Governments: 101, 401, 402, 403, 404, 405, 406, 304.

OR Political Theory: 460, 461, 462, 463, 464.

Additional or alternate courses under departmental advisement to total 40 credits.

FIELD MINOR:

Government 251, 252, and a minimum of five credits in each of the following areas:

a. State and Local Governments: 233, 334.

b. International Relations: 273, 375, 376, 472, 473, 480.

Additional or alternate courses under departmental advisement to total 20 credits.

Courses in Economics

101. **INTRODUCTION TO BUSINESS** 5 credits. Elementary business organization dealing with various types of ownership, location of business plants, labor problems, marketing problems, long and short-term financing, and managerial controls.
151. **PRINCIPLES OF ACCOUNTING** 4 credits. Prerequisite: clearance in mathematics qualifying test. Introduction to the theory of accounting, including bookkeeping and financial statements.
152. **PRINCIPLES OF ACCOUNTING** 3 credits. Prerequisite: Economics 151. Continuation of Economics 151, with emphasis on depreciation, the voucher system, partnership and corporation accounting.
153. **PRINCIPLES OF ACCOUNTING** 3 credits. Prerequisite: Economics 152. Continuation of Economics 152, covering manufacturing accounting, financial analysis, and interpretation of accounting data.

200. **GENERAL ECONOMICS** 3 credits. American economic institutions. This course is designed for those who need basic economics as a foundation for study in other areas. Not open to students who have had Economics 201.
201. **INTRODUCTION TO ECONOMICS** 5 credits. Organization and operation of the American economy. Consideration is given to the basic problems of economics; to the role of business, labor, and government, of money and the banking system; and to problems of inflation and deflation.
202. **PRINCIPLES OF ECONOMICS** 5 credits. Theory of price and income distribution, with particular application to the structure of American industry. Also considered are problems of the world economy and of alternative economic systems.
250. **INCOME TAX FOR THE EMPLOYEE AND SMALL PROPRIETOR** 3 credits. For wage earners, small businessmen, and students who do not plan to major in economics. Fundamental principles of the federal income tax law. Simple returns are completed. This course may be audited without credit.
271. **BUSINESS LAW I** 5 credits. Legal principles of use in everyday business dealings, with emphasis upon contracts, agency and negotiable instruments.
275. **STATISTICAL METHODS** 3 credits. Prerequisites: Economics 101 or 201 and Mathematics 100 or its equivalent. Elementary statistical techniques and their application to economic and business problems. This course gives principal emphasis to the description of frequency distributions and to the analysis of time series. (See Economics 375).
291. **PERSONAL FINANCE AND INVESTMENTS** 3 credits. Basic information useful to the typical family, relative to the various outlets for savings, such as savings accounts, stocks, bonds and insurance, as well as information concerning the major institutions in the investment market. Summer only.
301. **NATIONAL INCOME ANALYSIS** 5 credits. Prerequisites: Economics 201 and 202. Determinants of the level of income, employment, and output in the economic system.
302. **INTERMEDIATE ECONOMIC THEORY** 5 credits. Prerequisites: Economics 201 and 202. Systematic treatment of the theory of markets and price under conditions of competition and of monopolistic competition. Also treated are the relation of prices and costs and the functional distribution of income.
311. **MONEY AND BANKING** 5 credits. Prerequisite: Economics 201. Nature and functions of money, credits, and banking and the relationship of money and bank deposits to the economy with special reference to the United States.
322. **PERSONNEL MANAGEMENT** 5 credits. Prerequisite: Economics 101 or 201. Survey of principles and practices involved in obtaining and maintaining an effective working force. Attention is given to such topics as job evaluation, hiring practices, and wage administration.
325. **ECONOMICS OF LABOR** 5 credits. Prerequisite: Economics 201. Economic factors in labor problems. This course deals with the problems of labor organizations in their relation to the total economy and to industry in particular.
333. **PRINCIPLES OF PRODUCTION** 5 credits. Prerequisite: Economics 101. Principles and procedures of the manufacturing enterprise. Consideration is given to organization and administration, to location and layout, and to planning and control.
335. **PRINCIPLES OF MARKETING** 5 credits. Prerequisite: Economics 101 or 201. Institutions, functions, problems, and policies in the distribution of industrial and consumer goods. Pricing, costs, and governmental regulations are studied.
341. **PRINCIPLES OF TRANSPORTATION** 5 credits. Prerequisite: Economics 201. Economic principles and problems relative to the transportation and communication system of the United States.

350. **INCOME TAX ACCOUNTING** 3 credits. Prerequisite: Economics 151 or permission of the instructor. Legal requirements and practical problems arising in connection with the preparation of individual and partnership income tax returns.
352. **COST ACCOUNTING** 5 credits. Prerequisite: Economics 153. Available to students who have taken Economics 353 only with permission of instructor. Historical factory job and process cost systems, distribution cost systems, fixed and flexible budgeting and other controls over business operations available to management from the accounting records.
353. **MANAGEMENT CONTROLS** 3 credits. Prerequisite: Economics 153. Not open to students who have taken Economics 352. Cost systems, fixed and flexible budgeting, and other controls over business operations available to management from the accounting records.
354. **INTERMEDIATE ACCOUNTING** 5 credits. Prerequisite: Economics 153. Analysis and interpretation of financial statements, including advanced theory of inventories, depreciation, and the application of funds.
355. **ADVANCED ACCOUNTING** 5 credits. Prerequisite: Economics 354. Continuation of Economics 354, with the application of accounting theory to partnerships, branch accounting, installment sales, and other accounting problems.
361. **PRINCIPLES OF FOREIGN TRADE** 5 credits. Prerequisite: Economics 201 and 202. Theory of international trade. The course includes a discussion of the balance of payments of the United States.
371. **BUSINESS LAW II** 5 credits. Prerequisite: Economics 271. A continuation of Economics 271, with emphasis upon sales, conditional sales, personal property, partnership, and corporation law.
375. **STATISTICAL METHODS II** 3 credits. Prerequisite: Economics 275 or equivalent. Continuation of Economics 275, introducing the concepts of sampling, statistical inference, and statistical decision making as they apply to problems in economics and business.
401. **PRINCIPLES OF BUSINESS MANAGEMENT** 5 credits. Prerequisites: Economics 153 or permission of instructor. An evaluation of the types of management organization responsible for over-all company operations. The role of the board of directors, committees, and the functions of top management in organizing, staffing, directing, planning, and controlling company operations are discussed.
403. **THE HISTORY OF ECONOMIC THOUGHT** 5 credits. Prerequisite: 10 hours of economics or permission of the instructor. Development of economic thought with major emphasis placed upon the period following Adam Smith.
405. **COMPARATIVE ECONOMIC SYSTEMS** 5 credits. Economic systems of the leading nations of the world. Emphasis is placed upon a comparison of private competitive enterprise in democratic countries with the systems that prevail in other countries.
406. **ECONOMIC GROWTH IN UNDERDEVELOPED COUNTRIES** 5 credits. Conditions necessary for and the progress of economic development in underdeveloped countries. Such topics as resource allocation and development, effects on the international economy, and the significance of foreign-aid programs for economic development are studied.
408. **THE ROLE OF BUSINESS IN AMERICAN SOCIETY** 3 credits. Development of American capitalism and of its legal, philosophical, and ethical foundations. The course covers such topics as the ethics of the profit system, philosophies of management, and the responsibilities of business toward society at large. It is particularly appropriate for teachers of the social studies.

410. **PUBLIC FINANCE AND TAXATION** 5 credits. Prerequisites: Economics 201 and 202 or permission of the instructor. Principles of taxation and problems of tax administration. Special attention is given to the effect of government taxation, expenditure, and debt management policies upon employment, income, prices, and the structure of the economy.
411. **BUSINESS ORGANIZATION AND FINANCE** 5 credits. Prerequisites: Economics 101 or 201 and Economics 153 or permission of the instructor. Major forms of business organization and problems dealing with the sources, uses, and control of funds in business enterprises. Emphasis is upon sources of long and short-term funds, policies relating to working capital, income management, and the financing of growth and expansion.
412. **BUSINESS CYCLES** 5 credits. Prerequisite: Economics 201 and 275, or permission of instructor. Characteristics and major explanations of the prosperity-depression cycle in business, with major emphasis on forecasting.
415. **PROBLEMS AND PRACTICES IN STATE AND FEDERAL FINANCE** 3 credits. Problems of governmental expenditures, budgets, taxation, and borrowing. Local, state, and federal problems and practices are considered.
421. **PROBLEMS IN PERSONNEL ADMINISTRATION** 3 credits. A discussion of a limited range of problems in personnel administration. The topics covered include problems of wage and salary administration, employee rating, and employee selection.
426. **LABOR RELATIONS AND THE LAW** 3 credits. Prerequisite: Economics 325 or permission of the instructor. A non-technical course in the elements of labor law. Particular attention is given to the Federal law with respect to labor relations.
442. **GOVERNMENT AND BUSINESS** 5 credits. Prerequisites: Economics 201 and 202, or permission of the instructor. Public policy and business enterprise. Particular attention is devoted to the anti-trust laws and their interpretation.
485. **EUROPEAN INTEGRATION AND WORLD TRADE** 3 credits. Regional development of Western Europe in its economic and political aspects. Also offered as Government 485. Summer only.
490. **SPECIAL PROBLEMS IN ECONOMICS** 1 to 4 credits. Prerequisite: 20 credits in economics, junior standing and consultation with instructor. Readings in any area of economics under the general supervision of the instructor.

Courses in Business Education

NOTE: Beginning in the fall of 1962, Beginning Typing will not be offered in the regular program. Instead, it will be offered as a part of the extension program, and will carry two credits.

115. **BEGINNING TYPEWRITING** 2 credits. For those with no previous instruction in typewriting. A beginning course in touch typewriting, with emphasis on the development of basic skills, form, style, and arrangement of typewritten materials.
116. **INTERMEDIATE TYPEWRITING** 2 credits. Prerequisite: Business Education 115 or equivalent or one year of high school typewriting. Simple office typewriting problems with continued emphasis on the development of speed and accuracy.
117. **ADVANCED TYPEWRITING** 2 credits. Prerequisite: Business Education 116 or equivalent or advanced high school study in typewriting. Continuation of Business Education 116 with more advanced work on rough drafts, tabulation, and business communications.
120. **BEGINNING SHORTHAND** 3 credits. Fundamentals of Gregg Simplified Shorthand, including correct reading and writing techniques.

121. **INTERMEDIATE SHORTHAND** 3 credits. Prerequisite: Business Education 120 or equivalent. More advanced forms of shorthand, completing the fundamental principles of the Gregg system.
122. **ADVANCED SHORTHAND** 3 credits. Prerequisite: Business Education 121 or equivalent. Development of skill in dictation and typed transcripts. Considerable emphasis is placed on correct English and the production of mailable business letters.
150. **ACCOUNTING FOR SECRETARIES** 4 credits. Theory and practice of book-keeping and accounting with emphasis on both cash and accrual systems. The problems of a secretary in a small business office are considered.
201. **BUSINESS CORRESPONDENCE** 3 credits. Prerequisite: English 100 or equivalent. Development of skill in the use of correct English for business purposes. Attention is given to the writing and handling of business correspondence. Also offered as English 201.
215. **BUSINESS TYPEWRITING** 2 credits. Prerequisite: Business Education 117 or equivalent. An advanced course for the development of proficiency in speed and control. It includes arrangement and production of business communications and forms, tabulation, reports, legal forms, and masters, typed under office conditions for production standards. The course is designed for business teaching and secretarial students.
222. **SHORTHAND SPEED BUILDING** 3 credits. Prerequisite: Business Education 122 or equivalent of two years of high school shorthand. Intensive dictation and transcription practice on business correspondence for those who wish to acquire the ability to take and transcribe shorthand rapidly and accurately in a wide number of business fields. The development of a comprehensive business vocabulary is also an aim of this course.
223. **TRANSCRIPTION** 3 credits. Prerequisite: Business Education 122 or equivalent or two years of high school shorthand. Further study of shorthand principles with emphasis on the development of ability to take and transcribe shorthand rapidly in adequate volume.
224. **SECRETARIAL PRACTICE** 3 credits. Prerequisite: Business Education 223 or equivalent. Advanced secretarial training dealing with further development of speed and accuracy in transcription, office techniques, and the duties and problems of the secretary in business and professions.
241. **OFFICE MACHINES** 3 credits. Prerequisite: Business Education 115 or equivalent. Introduction to the operation of rotary and key-driven calculators, duplicating machines, adding machines, transcribing and recording machines, and electric typewriters. The principles and practices of filing are also included.
242. **SPECIALIZED OFFICE MACHINES** 3 credits. Prerequisite: Business Education 241 or equivalent. Advanced training on selected office machines.
319. **BUSINESS EDUCATION IN THE SECONDARY SCHOOL** 3 credits. The secondary school business education program. This course introduces the student to curriculum planning with consideration of philosophy, scope, and objectives.
320. **TEACHING SECRETARIAL SUBJECTS** 3 credits. Principles underlying the development of skill in typewriting, shorthand, and related subjects. This is a study of current trends and techniques involving the use of the newest instructional aids and equipment.
321. **TEACHING BOOKKEEPING AND BASIC BUSINESS SUBJECTS** 3 credits. The teaching of bookkeeping, general business, and business law through an analysis of objectives, materials, and method of presentation.
400. **DIRECTED STUDY IN BUSINESS EDUCATION** 1 to 3 credits. Prerequisites: senior standing and consent of instructor. Individual instruction for students who wish to undertake special projects by conference arrangements.

471. **CURRENT TRENDS IN THE TEACHING OF TYPEWRITING** 3 credits. Problems underlying the development of typewriting skills. In addition to the emphasis given to student motivation, the course deals with the skillful use of supplementary materials and special audio-visual devices. Electric typewriting techniques are also studied. Consideration is given to the problems of both beginning and experienced educators. Summer only.
481. **PROBLEMS AND ISSUES IN BUSINESS EDUCATION** 3 credits. Trends in the business programs of secondary schools. Attention is given to research studies as well as to analysis of the problems and issues of concern to business educators. Summer only.
501. **SPECIAL PROJECTS IN BUSINESS EDUCATION** 2 or 3 credits. Supervised planning and development of practical and creative projects in business education. The course encompasses directed reading, conferences, and appropriate related experiences carried out, as far as possible, in actual school situations.
502. **IMPROVEMENT OF INSTRUCTION IN SECRETARIAL STUDIES** 3 credits. Prerequisite: departmental approval. Modern methods in teaching typing, shorthand, transcription, and office practice with special concern for the psychology of skill building and teaching techniques. Summer only.

Courses in Government

101. **INTRODUCTION TO GOVERNMENT** 5 credits. Principles and problems of government as they exist in the contemporary world.
233. **AMERICAN STATE AND LOCAL GOVERNMENTS** 5 credits. Development, nature, and problems of American government and politics at various levels other than the national, with emphasis on intergovernmental relations and the role of the citizen.
- (253)
250. **INTRODUCTION TO AMERICAN NATIONAL GOVERNMENT** 5 credits. Comprehensive survey of American national government designed for those who need a course in basic principles as a foundation for study in other areas. Students may not receive credit for both Government 250 and the 251-252 sequence.
- 251, 252. **AMERICAN NATIONAL GOVERNMENT** 5 credits each. Structure, functions, and problems of the Federal government. First quarter covers fundamental principles, the judicial and popular processes, and political dynamics; second quarter, civil liberties, the legislative and administrative processes, and government in the economic order. Required of majors and minors in Government.
273. **INTERNATIONAL RELATIONS** 5 credits. Survey of international relations, including politics, organization, and law. Students may not receive credit for both Government 273 and 472.
304. **COMPARATIVE GOVERNMENT: PRINCIPLES AND PROBLEMS** 5 credits. Similarities and dissimilarities between States with respect to constitutional and legal concepts, institutions and procedures of government, civil and administrative functions, political processes.
310. **INTRODUCTION TO PUBLIC LAW** 5 credits. Prerequisite: Government 250 or 251. Nature of the judicial process; evolution, arrangement, and subject matter of law; sources and theories of law; Roman and common law systems; legal methods; fundamental legal concepts.
334. **URBAN GOVERNMENT AND ADMINISTRATION** 3 credits. Problems of government in the cities, the forms of city governments, municipal management, relationships among levels and areas of government, emerging patterns of urban regionalism.
- (353)

375. **FOREIGN POLICIES OF MAJOR POWERS** 3 credits. Foreign policies of major (454). world powers other than the United States.
376. **AMERICAN FOREIGN POLICY** 3 credits. Contemporary foreign relations of the (490). United States; objectives of American external policies; foreign and domestic factors affecting foreign policy; governmental institutions concerned with the development and execution of American external policies; current issues and problems in the area of foreign relations.
400. **SELECTED READINGS AND RESEARCH** 2-6 credits. Supervised readings and/or research in a selected area of political science with conferences and related activities undertaken under the guidance and supervision of the instructor.
402. **GOVERNMENTS AND POLITICS OF CONTINENTAL EUROPE** 3 credits. Prerequisite: Government 101. Political systems of France, West Germany, East Germany, and/or other countries selected at the discretion of the Department.
403. **GREAT BRITAIN AND THE COMMONWEALTH OF NATIONS** 3 credits. Prerequisite: Government 101. The nature of the British constitution; the Crown, cabinet, and ministry; political parties and elections; the parliamentary system; law and the courts; the local governments, plus special attention to the governmental political and practices of selected Commonwealth States.
404. **GOVERNMENTS AND POLITICS OF LATIN AMERICA** 3 credits. Prerequisite: Government 101. Description and analysis of the governmental and political systems of selected Latin American countries.
405. **GOVERNMENTS AND POLITICS OF THE FAR EAST** 3 credits. Prerequisite: Government 101. Description and analysis of the governmental and political systems of selected Far Eastern countries.
406. **GOVERNMENTS AND POLITICS OF THE NEAR AND MIDDLE EAST** 3 credits. Prerequisite: Government 101. Description and analysis of the governmental and political systems of selected Near and Middle Eastern countries.
420. **PRINCIPLES OF PUBLIC ADMINISTRATION** 5 credits. Prerequisite: Government 250 or 251, 252. The place of administration and the role of the administrator in the American systems of government.
421. **PROBLEMS OF PUBLIC ADMINISTRATION** 5 credits. Prerequisite: Government 420. Selected administrative problems such as intergovernmental administrative relationships in finance and in particular functions; the place of unofficial organization in administrative functions; the techniques, advantages, and disadvantages of decentralization; the future of the governmental corporation; responsibility and control in administration.
440. **POLITICAL PARTIES AND ELECTIONS** 5 credits. The manner in which political (451) parties function in the United States in relation to government, selection of candidates, and elections.
460. **POLITICAL THEORY: ANCIENT AND MEDIEVAL** 4 credits. Prerequisites: Either (468). General Education 121, 122, 123; or History 105, 106 (or equivalents); or consent of the instructor. Origins and evolution of major concepts in Western political thought from the time of Pericles to that of Niccolo Machiavelli.
461. **POLITICAL THEORY: RENAISSANCE AND MODERN** 4 credits. Prerequisites: (469). Either General Education 121, 122, 123; or History 105, 106 (or equivalents); or consent of the instructor. Origins and evolution of major concepts in Western political thought from the time of Machiavelli to that of Edmund Burke.
462. **POLITICAL THEORY: CONTEMPORARY IDEOLOGIES** 4 credits. Prerequisites: (470). Either General Education 121, 122, 123; or History 105, 106 (or equivalents); or consent of the instructor. Origins and evaluation of major concepts in Western political thought from the time of Edmund Burke to the present, with primary emphasis upon the development of modern conservatism, liberalism, Marxism, and Fascism, or national socialism.

463. 464. AMERICAN POLITICAL THEORY 3 credits each. Prerequisites: Either His (471). tory 203, 204 (or equivalents); or Government 250 or 251 and 252. Origins and evolution of major concepts in American political thought from the colonial period to the present. The first quarter covers the period to the Civil War; the second quarter, from the Civil War to the present.
472. FUNDAMENTALS OF INTERNATIONAL POLITICS 5 credits. The nature of the (450). State system, forces affecting international politics, sources of conflicts in the international community, and possibilities for their solution by "power politics" and/or international organization. Not open to students who have received credit for Government 273.
473. CONTEMPORARY WORLD POLITICS 3 credits. International politics since 1941, (453) with emphasis upon the impact of continuing crises on the external policies of the United States and on the operation of the United Nations.
480. INTERNATIONAL ORGANIZATION 3 credits. Development, organization, and (452). operation of various types of international institutions other than the United Nations.

DEPARTMENT of EDUCATION

Faculty

Professors: Ross, Skeen, Snedeker (Chairman), Thompson.

Associate Professors: D. Brown, Carroll, Cosanova, Johnson, D. McDonald, McInnes, Panches, Simpson, Watrous,

Assistant Professors: Ching, Hodges, H. Jones, Miller, Mumme, Nicol, Sobourin, Stevens, Van Wingerden, Worthyloke.

Instructors: Lamm, Schuette, Winslow,,

Lecturers Andrus, C. Brown, Gregory, Grabfelder.

Program Planning

The course offerings of the Department of Education deal with understandings, information, and skills which are pertinent to service in the field of education. Cores of education courses are required for the Bachelor of Education degree, and for the Master of Education degree. A selection of elective courses provides specialization and advanced study at undergraduate and graduate levels.

The Campus School, with classes in grades kindergarten through six, is part of the Department of Education, and provides a laboratory for observation of a high level of classroom practice and for experimentation with new approaches to instruction.

A description of the professional requirements for the Bachelor of Education degree, and for state certification, is given in the "Program" section of this catalogue. The professional requirements are shared by the departments of Education and of Psychology. For a statement regarding the psychology sequence, see the Psychology departmental listings.

Sequence of Courses

Introductory Course. During the sophomore year the student preparing to teach enrolls in Education 301, **American Education and the Teacher**. This is the student's entrance upon his professional preparation. One of the major purposes of the course is to assist the student to choose the kind of teaching for which he will prepare during his four-year program of undergraduate work. Transfer students with junior or senior standing should enroll in Education 301 during their first quarter on campus unless they have an approved equivalent.

First Student Teaching, Education 392. This is a combination of educational and psychological theory, techniques of teaching, and lab-

oratory practice in the classroom. Usually the student does this teaching with an age group several years younger or older than that for which he is preparing to teach. For example, a person preparing to teach first grade might be assigned to an intermediate or junior high school age group for the first student teaching. Requirements for eligibility to this first student teaching are stated below.

Foundations of Education, Education 315 or 316, is usually taken between the first and second student teaching. In this course the student studies the basic principles behind the development of American education, some of the major historical events in this development, and the forces which have produced changes in our educational systems, together with current trends.

If a student has credit for Anthropology 201 or Sociology 201, he should elect Education 315. Otherwise, he will register for Education 316. With departmental approval he may satisfy this course requirement by registering for Education 415.

Second Student Teaching, Education 492. In his second student teaching the student will be expected to assume, as far as circumstances permit, the responsibilities of a regular classroom teacher. Although the major part of the student's time will be used in the classroom laboratory, there is a prescribed program of seminars and conferences on campus, in which educational and psychological theories are considered in their application to the teaching assignment. Before taking this course the student should have completed most of the subject-matter preparation needed for the educational areas he has chosen.

Flexibility is preserved in programming individual student teaching sequences. In special circumstances students may be required, or may elect, additional student teaching experience, or a student may so clearly have demonstrated teaching competence that certain parts of his student teaching experience may be omitted. Special requests for individual exceptions to the general pattern of student teaching must be approved by the Department of Education in accordance with criteria established by that department. In addition, a written recommendation for the exception is required from the major and/or minor department.

Eligibility for Student Teaching

First Student Teaching, Education 392. In order to register for this course, the student must have attained the following:

An average grade point of 2.0 or better.

Junior standing, a minimum of 96 credits.

A grade of "C" or better in Education 301, Psychology 261, and Educational Psychology 355.

A satisfactory score in the English Competency Test.*

Completion of the General Education requirements, with the exception of General Education 301 and General Education 401.

A chest X-ray, in compliance with state law.

Second Student Teaching, Education 492. To be eligible for this course, the student must satisfy the requirements above, and in addition must have attained the following:

Completion of Education 315 or Education 316** and Educational Psychology 451.

Completion of a minimum of one-half of the Subject-Matter Concentration or the Elementary Concentration.

Completion of Educational Psychology 371 is also recommended.

*In addition to the required courses in English composition, teacher education students must pass an English Competency Test in order to be eligible for student teaching. The test may not be taken prior to the student's fifth quarter of college, nor while he is enrolled in a required composition course. Transfer students who are in their fifth quarter of college work and have completed the required composition courses may take the test. It is given during the seventh week of the quarter, which will be the weeks of November 6, February 5 and May 7 of the 1961-1962 academic year.

The test is a performance test, and does not employ grammatical terminology. It consists of two parts:

1. The writing of a theme, which is graded in terms of the following criteria:

Content, which means that the topic should be adequately developed, should be free of unsupported generalities and cliches, and should avoid pointless repetition.

Organization, which includes not only the development of the main idea (thesis), but also the arrangement or sequence of ideas which support it.

Reasoning, which means the use of clear, convincing argument rather than vague generalization.

Style, which includes effective sentence structure, the use of transition, and exactness of word choice.

Mechanics, which includes correct spelling, punctuation, and usage.

2. A spelling test, which may be either dictation or proofreading.

Results of the test are mailed to students within ten days.

Application to take the test must be made two weeks in advance of the dates on which the test is given. Study materials to be used in preparing for the test will be made available at the time of application.

**Exceptions are commonly made in the case of experienced teachers, or students who have earned the Bachelor's degree at other institutions. These students may, with departmental advisement, substitute Education 415 for Education 315 or 316, and may be admitted to Second Teaching, Education 492, without prior completion of the course.

Recommendation for Teaching Competence

In accordance with guidelines established by the State Board of Education, recommendations as to the professional and academic competence of graduates are made by the College. The Department of Education will formulate the statement of professional competence for all graduates in teacher education. The major and/or minor departments will formulate the statements of academic competence required for teaching assignments in the junior and senior high school. In general, these statements will be based upon the student's total college achievement.

Students who wish to qualify for more than one teaching competence may do so by meeting the requirements for additional areas of competence. This usually will require more than the twelve quarters of the four-year degree program.

Courses in Education

NOTE: The letters "a, b, c, or d" attached to the course numbers indicates teaching level: primary, intermediate, junior high, or senior high school grades respectively.

- 301. AMERICAN EDUCATION AND THE TEACHER** 3 credits. Prerequisite: sophomore status. The development of the American school system and the role of the teacher. The purpose of this course is to examine (1) the evolution of the American school system, (2) education in the State of Washington, (3) career opportunities in education, and (4) the many roles of the teacher. Through observation, lectures and seminars a student is to make a choice of his teaching goal, as well to develop an understanding of some of the important problems of teaching as a profession. This is a required first course in the teacher education sequence. This course may not be taken by students with credit in Education 215, previously offered at this college.
- 315. FOUNDATIONS OF EDUCATION** 3 credits. Prerequisites: Education 301, Sociology-Anthropology 201 and junior status. Functions of the school from a sociological viewpoint. The teacher's role in school and in community; and curriculum construction, implementation, and evaluation, are studied with reference to basic sociological concepts.
- 316. FOUNDATIONS OF EDUCATION** 5 credits. Prerequisite: Education 301 and junior status. Sociological concepts related to the functions of the public school. Culture, value, change, and social organization will be considered as they apply to such problems as: the teacher's role in school and in community; and value conflicts in curriculum construction, implementation, and evaluation.
- 373. ELEMENTARY STATISTICAL METHODS IN EDUCATION AND PSYCHOLOGY** 5 credits. Prerequisite: permission of the instructor. Statistical procedures for educational research. Emphasis is given to the criticism of evidence, the design of simple studies, and the basic techniques of statistical inference. The purpose of the course is to facilitate informed reading as well as application of statistics to original research. Also offered as Psychology 373.

- 392 a, b, c, d. **DIRECTED TEACHING** 8 credits. Prerequisite: Approval of the Department of Education. First supervised teaching experience, taken during the junior year, to develop an understanding of the problems of teaching and to gain some teaching competence. This integrated experience includes observation of teaching, planning, organizing, collecting materials and evaluating instructional techniques. Self evaluation and related personal problems are considered. Regular on-campus seminars are an integral part of this course.
400. **SPECIAL PROJECTS IN EDUCATION** 2-6 credits. Prerequisite: senior status or teaching experience. Special supervised projects for credit. These projects must suit the purpose of the student and may not be directly related to any courses listed in the catalogue.
- 400H. **THE HONORS PROGRAM IN THE HIGH SCHOOL: HUMANITIES** 3 credits. Prerequisite: permission of instructor. A study of high school honors courses in the humanities. Attention is directed to outstanding programs, appropriate content, and patterns and problems of organization. A three-week laboratory for observing a high school humanities course is included. Summer only.
412. **PRINCIPLES OF SECONDARY EDUCATION** 3 credits. Evolution of the secondary school: its purpose, scope, and curriculum. Special emphasis is given to the problems of the modern secondary school as related to career planning, human relations, and the program of studies.
413. **HISTORY OF AMERICAN EDUCATION** 5 credits. Historical development of formal education emphasizing the impact of cultural forces on the evolution of the American system of public education.
414. **COMPARATIVE EDUCATION** 3 credits. Educational systems in the major countries in terms of backgrounds, aims, types, and present functions. Significant differences and similarities existing between these systems and the American system of education are emphasized.
415. **PHILOSOPHY AND THE CURRICULUM** 5 credits. Prerequisites: student teaching and senior status. Philosophic assumptions concerning knowledge, truth and value, and of societal conditions influencing curriculum development. Course work involves a study of four areas: (1) development of skill in philosophical analysis; (2) application of philosophical concepts to curriculum design; (3) application of philosophical concepts to instructional content and method; (4) application of sociological concepts to curriculum development and implementation.
420. **CURRICULUM WORKSHOP** 5 credits. Prerequisites: Student teaching or teaching experience. Observation of children, laboratory work in various skills, opportunity to develop integrated curriculum materials, and work on individual projects. The course may be accepted as a part of the student teaching requirement or taken as an elective. Summer only.
421. **THE ELEMENTARY SCHOOL CURRICULUM** 3 credits. Prerequisite: Student teaching or teaching experience. Principles and methods of the modern elementary school curriculum. This course is concerned with guidance in selecting, organizing and evaluating school experience as a basis for curriculum improvement and revision. An examination is made of current theories and practices in curriculum organization and development.
422. **THE JUNIOR HIGH SCHOOL CURRICULUM** 3 credits. Prerequisite: student teaching or teaching experience. Current theories and practices in curriculum organization. Special attention is given to the core curriculum as well as to other types of curricular organization.
423. **THE SECONDARY SCHOOL CURRICULUM** 3 credits. Prerequisite: student teaching or teaching experience. Current theories and practices in curriculum organization. Curriculum planning and construction are fundamental aspects of the course.

424. **LANGUAGE ARTS IN THE CURRICULUM** 3 credits. Prerequisite: student teaching or teaching experience or departmental permission. Functions of the language arts in the curriculum involving a review of research, an analysis of current trends, and a formulation of programs.
427. **WORKSHOP IN CONSERVATION AND OUTDOOR EDUCATION** 5 credits. Field study of problems in conservation of forests, soil, wildlife, and fisheries. Opportunity will be provided for preparation of teaching materials. One-day field trips and overnight camping trips will be made. Summer only.
428. **COMMUNITY RESOURCES AS MATERIALS OF INSTRUCTION** 3 credits. Intelligent and effective use of community source materials in instruction. The immediate community is used as a laboratory for projects in the use of source materials.
429. **THE CORE PROGRAM** 3 credits. Prerequisite: first teaching or teaching experience. Unit teaching in the junior high school. The course emphasizes an examination of the principles, procedures, and types of core curriculum organization.
441. **SCHOOL LAW** 3 credits. Prerequisite: senior status or teaching experience. The courts and school management and personnel. This course examines the legal principles underlying statutes and court decisions related to the schools. Emphasis is upon the status of the teacher and the administration. Summer only.
442. **SCHOOL AND COMMUNITY RELATIONS** 3 credits. Human behavior in school-community situations. This course involves a critical examination of human relations factors and how they impinge upon the school. Formal and informal power structures, their attendant problems, and some methods of handling these problems are studied.
447. **THE DEVELOPMENT OF INTEGRATED INSTRUCTIONAL PROGRAMS IN THE ELEMENTARY SCHOOL** 5 credits. Prerequisite: student teaching or teaching experience. A work-shop course in the development of an integrated program in the elementary school. A unifying problem or topic serves as a focal point to illustrate the functioning of an integrated program.
461. **ROLE OF THE CLASSROOM TEACHER IN THE EDUCATION OF THE EXCEPTIONAL CHILD** 3 credits. Prerequisite: senior or graduate standing. Identification, instruction, and development of children with mild or moderate handicaps or with exceptional ability. Areas of study include orthopedic problems, speech, hearing, vision, low vitality, and epilepsy. Problems of the gifted and of the dull child also are studied. This course is designed for the regular classroom teacher who is facing the problems of the exceptional child. Laboratory activities include demonstrations, observations, clinics, and field trips.
462. **METHODS, CURRICULUM AND MATERIALS FOR EXCEPTIONAL CHILDREN** 3 credits. Prerequisite: senior or graduate status. Objectives for teaching exceptional children; organization, facilities, and materials needed for their classes; and development of programs appropriate for them.
463. **METHODS, CURRICULUM AND MATERIALS FOR REMEDIAL READING** 3 credits. Prerequisite: Education 485 or teaching experience. Identification of the causes of reading difficulty; selection of children who may profit through work in remedial reading; organization, facilities, and materials needed for learning situations which will meet the learner's needs; techniques especially adapted to remedial reading.
472. **CLASSROOM DIAGNOSIS** 3 credits. Prerequisites: student teaching and senior standing. Development of skills in (a) observing human behavior and determining the underlying causes of this behavior; (b) identifying the characteristics of the bright and talented child, those with physical handicaps, and those with emotional, social, and educational maladjustments. A critical survey is made of the utility and validity of instruments in evaluating these characteristics.

480. **EDUCATIONAL TELEVISION** 3 credits. Prerequisite: student teaching or teaching experience. Television as an instructional aid. This course deals with the findings of experimental studies as they apply to the techniques of instruction, the unique contributions and limitations of television as an instructional aid, the sources of educational television, and the problems involved in planning and using television as an educational medium. Summer only.
481. **TEACHING ELEMENTARY SCHOOL SUBJECTS** 3 credits. Prerequisite: senior status or teaching experience. Organization, content, and instructional practices appropriate to the elementary school subjects. The course stresses the relation of research in child development and instructional techniques to the practical problems of instruction.
482. **THE CONSTRUCTION OF AUDIO-VISUAL MATERIALS FOR THE CLASSROOM** 2 credits. Education 489 or equivalent, is recommended as a preparatory course. Individual or committee work in making audio-visual materials for specific curriculum application. Skills and techniques involved in planning and making motion pictures, film strips, slides, still photographs, models, charts, and posters, as aids in teaching are taught on the basis of individual student interest, experience and ability.
- 483a, b, c, d. **ADVANCED OBSERVATION AND TECHNIQUES** 3 credits. Prerequisite: senior status, Education 492, or teaching experience. Observation of teaching techniques. This course provides for a study of children in a classroom and deals with the problems and techniques of instruction.
484. **THE TEACHING OF SOCIAL STUDIES IN THE ELEMENTARY SCHOOL** 3 credits. Prerequisite: teaching experience. Preparation of social studies units with attention to related fine arts and communicative skills. This is a laboratory course involving observation in the Campus School. Also offered as Social Studies 425.
485. **TECHNIQUES OF TEACHING READING** 3 credits. Prerequisite: student teaching. The study of the specific skills which constitute general reading ability and an analysis of some of the factors which further or interfere with the acquisition of these skills. Each student is expected to study some problem of reading specifically connected with his own field of teaching. An examination is made of current theories and practices. Also offered as English 485.
- 485c. **TECHNIQUES OF TEACHING READING IN THE JUNIOR HIGH SCHOOL** 3 credits. Prerequisite: student teaching. Also offered as English 485c.
486. **CLASSROOM TECHNIQUES IN CONSERVATION EDUCATION** 2 credits. Taken in conjunction with Education 496. Conservation materials and the techniques of using them in the classroom studied through actual camp living, field trips, and seminars. Summer only.
487. **INSTRUCTIONAL PROBLEMS OF ELEMENTARY TEACHERS** 5 credits. Prerequisite: teaching experience or departmental permission. Pupil-teacher relationships, selection and organization of instructional materials, curriculum development, and group planning.
488. **INSTRUCTIONAL PROBLEMS OF SECONDARY TEACHERS** 3 credits. Prerequisite: teaching experience or departmental permission. A critical examination of the problems of pupil-teacher relationships, curriculum developments, group planning, and supervision of co-curricular activities. The course is designed for teachers in the junior and senior high school.
489. **AUDIO-VISUAL INSTRUCTION** 3 credits. Types of audio-visual aids, technical processes, educational procedures, and the administration of audio-visual instruction. Students are instructed in the operation of motion picture, opaque, and slide-film projectors, tape recorders and other sound and visual apparatus.

- 491a, b, c, d. **ADVANCED TEACHING AND ITS TECHNIQUES** 8 or 12 credits. Prerequisite: student teaching experience. Supervised teaching experience taken during the senior year. The work of the course is built for each student upon the strengths and weaknesses of his first student teaching course and should round out his practice in all phases of public school teaching.
- 492a, b, c, d. **DIRECTED TEACHING** 16 credits. Prerequisite: Education 392 and senior status. Supervised teaching taken during the senior year. Extensive teaching opportunity is provided so that each student may develop maximum teaching competence. To provide an integrated experience, the following major areas of study are included: principles of teaching, general methods, problems and practices of instruction, observation of teaching, and introduction to the curriculum. Regular on-campus seminars are an integral part of this course.
494. **TEACHING REMEDIAL READING** 5 credits. Prerequisite: Education 463 or equivalent (may be taken concurrently) and senior standing. Observation and teaching in an elementary grade remedial reading room.
495. **TEACHING EXCEPTIONAL CHILDREN** 5 credits. Prerequisite: teaching experience and senior standing, Education 462. Laboratory opportunities are provided for work with exceptional children as individuals and in groups. May be taken concurrently with Education 462.
496. **ADVANCED TEACHING AND ITS TECHNIQUES IN OUTDOOR EDUCATION** 8 credits. Prerequisite: approval of department and teaching experience. Point of view and specific skills essential for effective outdoor education. The course may be accepted as a part of the student teaching requirement or may be taken as an elective. Summer only.
497. **ADVANCED TEACHING AND ITS TECHNIQUES IN OUTDOOR EDUCATION** 5 credits. Prerequisite: approval of department and teaching experience. Point of view and specific skills essential for effective outdoor education. The course may be accepted as a part of the student teaching requirement or may be taken as an elective. This course is the same as Education 496, except that it is offered for a shorter period and for less credit. Summer only.
500. **SPECIAL PROJECTS IN EDUCATION** 3-5 credits. Special projects under supervision. These projects must suit the purpose of the student and may not be directly related to any of the courses listed in the catalogue.
501. **INTRODUCTION TO GRADUATE STUDY** 4 credits. Prerequisite: graduate status. Experimental, documentary, case study, survey, and other methods of educational research and investigation. This course is required during the first quarter of the student's program toward the master's degree.
511. **EDUCATIONAL SOCIOLOGY** 3 credits. Major problems in American culture as they relate to education. Problems include: social stratification, individual-group interaction, the family, social attitudes and prejudices, public health and welfare.
512. **SEMINAR IN EDUCATIONAL CONCEPTS AND ISSUES: HISTORICAL-PHILOSOPHICAL** 4 credits. Prerequisite: Education 501. Differing concepts of the nature of man and his education. The historical and philosophical development of these concepts is analyzed to determine their basic premises and implicit assumptions. Related educational issues are viewed in their contemporary setting.
513. **SEMINAR IN EDUCATIONAL CONCEPTS AND ISSUES: PSYCHOLOGICAL-SOCIOLOGICAL** 4 credits. Prerequisites: Education 501 and Education 512. Differing concepts of the nature of the individual and society. The psychological and sociological development of these concepts is analyzed to determine basic premises and implicit assumptions. Related educational issues are viewed in their contemporary setting.

515. **PHILOSOPHY OF EDUCATION** 5 credits. Critical analysis of theoretical positions in educational philosophy. The emphasis is on modern and contemporary discussions of educational theory. Seminar discussions. Also offered as Philosophy 525.
516. **EDUCATIONAL CLASSICS** 3 credits. A study of selected writings which have come to be recognized as having influenced the development of educational thought. Works of Plato, Aristotle, Quintilian, Comenius, Locke, Rousseau, Dewey and others are considered. Seminar discussion.
521. **SEMINAR IN CURRICULUM DEVELOPMENT** 5 credits. Prerequisite: teaching experience or Education 421, 422, or 423. Problems of initiating, developing, implementing and evaluating curricular programs.
522. **SEMINAR IN CURRICULUM PLANNING AND ADMINISTRATION** 3 credits. Prerequisite: 3 credits in a basic curriculum course. Total pattern of the curriculum for grades one through twelve. Among the matters dealt with are (a) the planners and their respective responsibilities; (b) administrative policies and community understanding; (c) educational goals and pupil achievement; (d) the achievement of continuity and coordination in the school program; (e) experimental and evaluation procedures. For curriculum directors, principals, and teachers having the major responsibility for developing a program consistent with a stated philosophy of education.
529. **THE CORE CURRICULUM IN THE JUNIOR HIGH SCHOOL** 5 credits. Prerequisite: Education 429. A consideration of core teaching at the junior high school level. This course emphasizes the selection and development of instructional materials with reference to appropriate criteria.
541. **PUBLIC SCHOOL ORGANIZATION AND ADMINISTRATION** 3 credits. Practical problems related to administration of school personnel, plant, and program. The structure and organization of the school system is considered.
542. **WORKING WITH STUDENT TEACHERS** 3 credits. The literature, techniques for the orientation of student teachers, major problems which confront student teachers and evaluation of their achievement are studied. For experienced teachers who have worked or may be working with student teachers in cooperation with a college teacher-education program, or for teachers who have responsibility for working with beginning teachers, and for curriculum coordinators.
543. **SUPERVISION IN THE PUBLIC SCHOOLS** 3 credits. Supervision as educational leadership in the development and periodic revision of plans for the continuous evaluation and improvement of school practice. Emphasis is upon problems growing out of supervisor-teacher relationships.
544. **ORGANIZATION AND ADMINISTRATION OF AUDIO-VISUAL MATERIALS** 3 credits. Prerequisites: Education 489 or permission of the instructor. Basic problems and principles in establishing and directing an audio-visual service center. Special attention is given to coordinating, staffing, financing, housing and evaluating the service as well as assisting in the proper use of audio-visual aids.
545. **PUBLIC SCHOOL FINANCE** 3 credits. Prerequisite: Education 541. Problems involved in school finance, including budgetary and accounting procedures. Concentration is upon problems of particular school systems.
546. **PUBLIC SCHOOL BUILDINGS AND FACILITIES** 3 credits. Prerequisite: Education 541. Planning of school building programs through analysis of population trends in the community; examining the relationship of school plant to the educational program of the school; and exploration of problems in utilization of school facilities.

547. **SCHOOL DISTRICT PLANNING** 3 credits. Prerequisite: graduate status or permission of the instructor. Programs for school district planning and materials and methods in the graphic presentation of data are considered. Class work includes lectures, discussion, and laboratory work.
548. **FIELD EXPERIENCE IN ADMINISTRATION FOR THE PRINCIPAL** 1-5 credits. For applicants for the principal's credential who have been admitted to candidacy for the master's degree. The course meets the State Board of Education requirement for the principal's credential. See Graduate Bulletin for details.
549. **SEMINAR IN SCHOOL PERSONNEL ADMINISTRATION** 3 credits. Professional relationships among certified employees and other school personnel. Emphasis is given to the development and implementation of policies, and to other personnel practices designed to improve teaching services. Summer only.
561. **ADVANCED PROBLEMS IN SPECIAL EDUCATION** 3 to 5 credits. Prerequisites: Graduate status and permission of instructor. The student is expected to select an area in special education and to study the problems in that area intensively.
562. **CURRICULUM AND PROBLEMS OF INSTRUCTION FOR THE MENTALLY RETARDED** 3 credits. Prerequisite: graduate status and teaching experience, or permission of the instructor. Problems of diagnosis, class organization, selection of curriculum content and instructional aids for teaching the slow learner. Ways of meeting individual needs in special and regular classes are presented and evaluated.
563. **ADVANCED PROBLEMS IN REMEDIAL EDUCATION** 3 to 5 credits. Prerequisites: Graduate status and permission of instructor. The student is expected to select an area in remedial education and to study the problem in the area intensively.
570. **FIELD PROJECT OR THESIS** 6 credits. Prerequisite: approval of the student's graduate committee. Field project or a research study under the direction of a faculty committee. The field project, report, or thesis must be written to conform to the standards given in Campbell's "Form Book for Thesis Writing." The field project or thesis may be done off-campus between periods of residence work; however, residence credit is allowed.
575. **STATISTICAL INFERENCE FOR EDUCATION AND PSYCHOLOGY** 3 credits. Prerequisite: Psychology 373. Advanced statistical methods with emphasis on the statistical inferences that may be drawn from the analysis of research data. Also offered as Psychology 575.
585. **ADVANCED TECHNIQUES IN THE TEACHING OF READING** 3 credits. Prerequisites: Education 485 and teaching experience. Recent research in the teaching of reading; principles of learning upon which modern reading methods are based; analysis of current reading texts and programs; measurement of reading achievement; evaluation of mechanical devices for the improvement of reading.
596. **ADVANCED SUPERVISION AND LEADERSHIP IN OUTDOOR EDUCATION** 8 credits. Prerequisites: Education 496, teaching experience, graduate standing, and permission of the department. Preparation for direction or supervision of an outdoor education school program or camp.

DEPARTMENT of ENGLISH

Faculty

Professors: Cederstrom, Clapp, Hicks (Chairman), Van Aver.

Associate Professors: O'Brien, Odom.

Assistant Professors: Cohen, Evenhuis, Hovde, Hunt, Larsen, Lawyer, Mendel, Muldrow, Ryan, Storm.

Instructors: McIntyre, Mathieson.

Acting Instructor: Clothier.

Lecturer: Larsen.

Composition

The basic English requirements for all degree candidates are English 100, 101, English Composition, 6 credits.

In order to enroll in English 100, a student must achieve a satisfactory English sub-score in the pre-entrance tests. Those failing to do so may clear this deficiency by studying independently and passing a retest or by passing a remedial non-credit course: English 3. Fundamentals of English. This deficiency must be cleared before a student may enroll for a fourth quarter of residence study.

English Competency Test

See Department of Education, page 125.

Journalism

Offerings of the English department include a limited number of courses appropriate to those who aim to develop special competency in journalism. These are of special interest not only to those who anticipate more advanced professional study and a journalistic career but to prospective teachers and advisers of student publications. These courses are as follows:

200. News Writing

205, 206, 207. Newspaper Staff

235, 236, 237. Yearbook Staff

305, 306, 307. Advanced Newspaper Staff

335, 336, 337. Advanced Yearbook Staff

400. Special Problems in Journalism
413. Advising and Preparing the School Newspaper
414. Advising and Preparing the School Yearbook

Note for pre-journalism students who plan to transfer to the University of Washington:

1. Those planning on editorial sequence should include among their electives Geography in World Affairs, Modern European History, Theory and Practice of Government in the State of Washington.
2. Those planning on advertising and management sequence should take Introduction to Business, Drawing, and Principles of Marketing.
3. All journalism students must complete a total of 9 credits in English Literature at some time during their four years.

Teacher Education

Concentrations

FIELD MAJOR:

- a. Select two: English 301, 302, 303
- b. Select two: English 380, 381, 382
- c. Select one: English 425, 427, 428
- d. Select one: English 200, Speech 204, Speech 230
- e. Elect courses dealing with major authors to total 6 credits
- f. Elect an upper division writing course
- g. Additional English electives under advisement: 8 to 10 credits

FIELD MINOR:

Choose two of the following alternatives:

1. Courses in major authors—6 credits
2. Five credits from English 301, 302, 303
3. Six credits from English 380, 381, 382
4. Courses in recent or contemporary literature—6 credits

A course in the teaching of English—3 credits

Additional English electives under advisement: 5 to 6 credits

Arts and Sciences

Concentrations

MAJOR:

English 301, 302, 303, 380, 381, 382

Courses dealing with major authors — 6 credits

An upper division writing course

Additional upper division courses under advisement to total 55 credits

Supporting Courses: the equivalent of two years of college study in French or German for those English majors who plan to do graduate work.

MINOR:

Choose two of the following alternatives:

1. Courses in major authors — 6 credits

2. Five credits from English 301, 302, 303

3. Six credits from English 380, 381, 382

4. Courses in recent or contemporary literature — 6 credits

Additional upper division courses under advisement to total 25 credits.

Courses

3. **FUNDAMENTALS OF ENGLISH.** A non-credit course offered to students failing to receive a satisfactory score on the English placement tests. Aspects of English usage which are included in the elementary and junior high school curricula are emphasized along with the development of reading skills.
100. **ENGLISH COMPOSITION** 3 credits. Prerequisite: English 3 or a satisfactory grade in English placement tests. Practical approach to the writing problems of the average student on the college level.
101. **ENGLISH COMPOSITION** 3 credits. Prerequisite: English 100 or equivalent. Continuation of English 100. Emphasis is given to methods of gathering material culminating in the writing of a term paper.
102. **ENGLISH COMPOSITION** 3 credits. Prerequisites: English 100 and 101 or equivalent. Continuation of English 101 designed to complete the standard nine-hour freshman composition requirement of many colleges and universities.
200. **NEWS WRITING** 3 credits. Writing for newspapers. Subjects included are news elements and values, methods of gathering news, structure and style of news stories, the covering of speeches and meetings, interviewing, and laws affecting the press.
201. **BUSINESS CORRESPONDENCE** 3 credits. Prerequisite: English 100 or equivalent. Development of skill in the use of correct English for business purposes. Attention is given to the writing and handling of business correspondence. Also offered as Business Education 201.
- 205, 206, 207. **NEWSPAPER STAFF*** 1 credit each. Prerequisite: English 200 or permission of the instructor. Practice in writing or editing copy for the college newspaper. Weekly conferences with the adviser are required.
- 235, 236, 237. **YEARBOOK STAFF*** 1 credit each. Practice in annual production. Weekly conferences with the adviser are required.

- 263, 264, 265. **GENERAL LITERATURE** 3 credits each. Readings extending from the classical period, with special emphasis on Homer and the Greek dramatists, through the Middle Ages, the Renaissance, and the Romantic Movement in European literature to the contemporary period. This sequence will ultimately be replaced as a General Education requirement by the readings segment of the Humanities course.
281. **SHAKESPEARE: EARLIER COMEDIES** 3 credits. Also offered as Speech 281.
282. **SHAKESPEARE: HISTORICAL PLAYS — ENGLISH AND ROMAN** 3 credits. Also offered as Speech 282.
283. **SHAKESPEARE: TRAGEDIES AND LAST COMEDIES** 3 credits. Also offered as Speech 283.
301. **ENGLISH LITERATURE** 5 credits. Introduction to English literature through a study of the greater figures and more important works from Anglo-Saxon times to the late eighteenth century.
302. **ENGLISH LITERATURE** 5 credits. Continuation of English 301 dealing with the Romantic Period.
303. **ENGLISH LITERATURE** 5 credits. Continuation of English 302 dealing with the Victorian Period and after.
- 305, 306, 307. **ADVANCED NEWSPAPER STAFF*** 1 credit each. Prerequisite: English 205, 206 or 207, or permission of the instructor. Advanced practice in writing or editing copy for the college newspaper. Weekly conferences with the adviser are required.
311. **INTRODUCTION TO MODERN WORLD LITERATURE** 3 credits. Introduction to modern World Literature, emphasizing a comparative perspective of writings produced in several countries. Translations are used. All types of literature are read and instruction is given on the special problems posed by each type and by each literary tradition. The principal aim is to encourage an approach to a work of literature on its own terms as an index to the thought of its time and for increased reading pleasure.
312. **CLASSICAL MYTHOLOGY** 3 credits. Prerequisite: permission of the instructor required for sophomores; no prerequisites for upper division students. The nature of mythical thought, its development among the Greeks and Romans, and its influence on Western literature. Selected readings in English in ancient sources are used.
321. **ELIZABETHAN DRAMA** 3 credits. Representative plays and brief sketches of the dramatists, portraying the development, range, and achievement of Elizabethan drama. Consideration is given to the evaluation of the plays as vital theater their reflection of the period, and their influence upon Shakespeare's art.
322. **DRAMA FROM 1660 TO 1850** 3 credits. European and American drama beginning with that of the Restoration period. A critical study is made of the plays and their relationship of historical and sociological events. Also offered as Speech 322.
323. **MODERN DRAMA** 3 credits. Plays of Ibsen and Strindberg, founders of the modern drama. Selected plays of the early twentieth century playwrights are included. Also offered as Speech 323.
324. **MODERN AMERICAN DRAMA** 3 credits. Plays, playwrights, and related movements of artists of the American theater, beginning with O'Neill and concluding with playwrights of the present. Also offered as Speech 324.

*Not more than six one-credit staff courses may be applied toward the English major.

330. **THE ENGLISH NOVEL** 5 credits. Growth of the novel as a form of literature, with some attention to the technique of the type, and the reading of representative novels.
331. **INTRODUCTION TO RUSSIAN LITERATURE** 3 credits. More important works of a few major figures of the modern period.
- 335, 336, 337. **ADVANCED YEARBOOK STAFF*** 1 credit each. Prerequisite: English 235, 236 or 237, or permission of the instructor. Advanced practice in annual production. Weekly conferences with the adviser are required.
340. **CONTEMPORARY POETRY** 5 credits. Tendencies in modern American and British poetry with extensive reading in the field.
345. **MODERN IRISH LITERATURE** 3 credits. The poetry, drama, and fiction of Irish writers since 1890, with emphasis on Yeats, Synge, O'Casey, and Joyce.
350. **THE SEVENTEENTH CENTURY** 3 credits. Seventeenth century English literature exclusive of the drama.
351. **EIGHTEENTH CENTURY PROSE** 3 credits. Prerequisite: English 301 or equivalent. English prose—exclusive of the novel and drama—of the Age of Reason. This course deals with the work of such men as Swift, Defoe, Addison, Shaftesbury, Berkeley, Bolingbroke, Samuel Johnson, Lord Chesterfield, Horace Walpole, and others.
352. **EIGHTEENTH CENTURY POETRY** 3 credits. Prerequisite: English 301 or equivalent. English poetry of the eighteenth century—the age of Pope and the precursors of the Romantic Movement—such figures as Pope, Gay, Goldsmith, Collins, Gray, Shenstone, Bishop, Percy, Macpherson, and others.
360. **ADVANCED COMPOSITION** 3 credits. Prerequisite: six hours of college credit in English composition. Practice in the writing of the familiar, informal essay and of the critical book review. The course also deals with the techniques of descriptive and narrative writing.
361. **ADVANCED COMPOSITION—EXPOSITION** 3 credits. Prerequisite: six hours of college credit in English Composition. Principles and techniques of expository writing. Considerable writing is required.
367. **FRENCH LITERATURE IN TRANSLATION: 19th AND 20th CENTURIES.** Readings in Hugo, Balzac, Flaubert, Maupassant, Baudelaire, Gide, Sartre and others. May be taken in conjunction with History 367 and French 201 and/or French 210 to provide a coordinated program in French language and culture. Offered summer session only. Also offered during summer quarter as French 367.
370. **CREATIVE WRITING** 3 credits. Prerequisite: English 100 or its equivalent. Practical approach to the problems of writing through class and conference. The technical aspects of English are taken up only as they occur as problems to the individual student.
380. **AMERICAN LITERATURE 1800-1860** 3 credits. Romantic and nationalistic tendencies of the period as they are expressed in the poetry and prose of the times.
381. **AMERICAN LITERATURE 1860-1900** 3 credits. Growth of realistic and naturalistic tendencies in American fiction and poetry of the period.
382. **AMERICAN LITERATURE 1900-1930** 3 credits. Social and literary ideas expressed in the prose and poetry of the period.
385. **THE CONTEMPORARY AMERICAN NOVEL** 3 credits. English 382 is desirable but not required as a preceding course. The American novel since 1940. This is primarily a reading course.

*Not more than six one-credit staff courses may be applied toward the English major.

390. **THE BIBLE AS LITERATURE** 3 credits. Cultural background of the Old and New Testaments and a literary analysis of selected passages.
400. **SPECIAL PROBLEMS IN JOURNALISM** 1-3 credits. Opportunity for journalism students to work in special areas of interest. Approval of the adviser and weekly conferences are required.
402. **ROMANTIC POETS** 3 credits. Major English poetry in the Romantic Period with provision for collateral reading and reports. Summer only.
403. **VICTORIAN PROSE** 3 credits. Victorian thought as expressed by the major prose writers of the period.
406. **JOSEPH CONRAD** 3 credits. The author's career and achievement as seen in representative short stories and novels.
407. **MATTHEW ARNOLD** 3 credits.
408. **MILTON** 3 credits.
409. **CHAUCER** 3 credits. Major works, with emphasis on literary values.
410. **LITERARY CRITICISM AND APPRECIATION** 5 credits. Prerequisite: fifteen credits in literature or an equivalent satisfactory to the instructor. An analysis of literary theory from ancient to modern times.
413. **ADVISING THE SCHOOL NEWSPAPER** 3 credits. Prerequisite: English 200. Preparation of a typical secondary school newspaper. Included is a review of the principles and techniques of journalism, with an emphasis on responsible reporting and newswriting. The planning and staffing of the paper and the actual processing of both the duplicated and printed school journal compose the bulk of the course.
414. **ADVISING THE SCHOOL YEAR** 3 credits. Production of the secondary school "annual," with stress being placed on the practical processes of yearbook composition; the scheduling of the divisions of the book; the selection of efficient staff members; the planning of "dummies" and "logs."
419. **GREEK LITERATURE IN TRANSLATION** 3 credits. Selected major works of Greek literature with reference to their historical and cultural setting, literary merit, and subsequent influence. The course involves lectures, discussions, and readings in English.
420. **LATIN LITERATURE IN TRANSLATION** 3 credits. Selected major works of Latin literature with reference to their cultural and historical setting, literary merit, and subsequent influence. The course involves lectures, discussions, and readings in English.
421. **INTRODUCTION TO ORIENTAL LITERATURE** 5 credits. Literature of India and China; examination of the Indian epics and philosophies of India; Chinese literature, especially the ideals of Confucius; relation of oriental literature to the thought of our times.
425. **ENGLISH FOR THE ELEMENTARY SCHOOL** 3 credits. Teaching the language arts—reading, writing, speaking, and listening—at the elementary school level. Methods of instruction appropriate to a formal English class and to the more informal unit teaching are explored. Consideration is given to methods of stimulating creative expression as well as to the teaching of such specific skills as spelling and usage. Appraisal of textbooks and curricular material is part of the work.
427. **GRAMMAR AND COMPOSITION FOR THE SECONDARY SCHOOL** 3 credits. Problems of teaching grammar in connection with writing. Some attention is given to recent research in linguistics. A brief review of grammatical terminology is included.

428. **LITERATURE FOR THE SECONDARY SCHOOL** 3 credits. Teaching literature in the junior and senior high school. The course deals with (a) methods of instruction appropriate to formal English classes and (b) the integrated core program approach to literature.
429. **GRAMMAR AND COMPOSITION FOR THE JUNIOR HIGH SCHOOL.** 3 credits.
430. **THE CONTEMPORARY BRITISH NOVEL** 3 credits. The period since 1920 with emphasis on four or five leading novelists.
431. **NINETEENTH CENTURY RUSSIAN FICTION** 3 credits. A course emphasizing the novel but also including some short stories. Only Gogol, Turgenev, Dostoevsky, and Tolstoy are considered.
433. **FOUR MODERN POETS** 2 credits. A few important poets of our time.
434. **CONTEMPORARY POETS** 3 credits. Eliot, Frost, Crane, Auden and Stevens. Emphasis is placed upon textual analysis of the poems; a term paper is required.
440. **DESCRIPTIVE ENGLISH GRAMMAR** 3 credits. For English majors in teacher education. The course is concerned with the principles of English grammar and conventional English usage in oral and written communication.
460. **STRUCTURAL LINGUISTICS** 3 credits. Structure of American English, taking into account the linguistic research of recent years and its impact on traditional grammar.
470. **WRITING SEMINAR** 3 credits. Practical problems of writing for publication.
475. **HISTORY OF THE ENGLISH LANGUAGE** 3 credits. Development of the English language from the standpoints of morphology, syntactical relationship, and semantics.
483. **SOCIAL CHANGE AND THE MORAL ORDER IN RECENT LITERATURE** 4 credits. Also offered as Philosophy 483 and Sociology 483.
485. **TECHNIQUES OF READING** 3 credits. Prerequisite: student teaching experience. The importance of attitudes in maintaining normal progress in the acquisition of reading skills. Study is made of the factors conducive to desirable attitudes. The specific skills which constitute general reading ability are analyzed, as are the procedures suited to their development. Each student is expected to study some problems of reading specifically connected with his own field of teaching. Also offered as Education 485.
- 485a. **TECHNIQUES OF TEACHING READING IN THE JUNIOR HIGH SCHOOL.** 3 credits. Prerequisite: student teaching experience. Also offered as Education 485a.
501. **RESEARCH WRITING** 2 credits. Thesis preparation.
520. **PRINCIPLES AND PROBLEMS OF LITERARY CRITICISM** 3 credits. Some answers to the enduring problems of literary judgment, with emphasis upon poetry and recent criticism.
583. **SEMINAR IN SHAKESPEARE** 3 credits. A close examination of two plays together with collateral reading and reports.
584. **SEMINAR IN AMERICAN LITERATURE** 2 credits. The background of the New England Romantic Movement in American literature, 1830 to 1860.
585. **SEMINAR IN AMERICAN LITERATURE** 2 credits. Prerequisites: English 380 and 381 or equivalent. Social, economic, and political writers and philosophers of America during the period 1870 to 1910 and their influence on American literature. Consideration is given to such figures as Edward Bellamy, Henry George, Henry Adams, William James, Lincoln Steffens, and others.

DEPARTMENT of

FOREIGN LANGUAGES*

Faculty

Associate Professors: Faber, King (Chairman).

Assistant Professors: Cohen, Robinson, Young,

Instructors: Elmendorf, Pesseat, Seigneuret.

Arts and Sciences

Concentrations

MAJOR: 40 credits beyond the first year in French, German or Spanish.

Supporting courses: courses in English, History, Philosophy, Geography or in a second Foreign Language (at least 15 credits), selected under departmental advisement.

MINOR: 24 credits in one language (French, German, Latin, Russian or Spanish).

Teacher Education

Concentrations

Field Major A: Forty-five hours in French, German or Spanish. Required are: 201, 202, 203, 210, 211 and seventeen credits in courses numbered 300 and above. Foreign Language Education 432 should also be included if possible.

Field Major B: Students with two or more years of high school French, German or Spanish may:

1. elect a combined foreign language major to consist of 27 hours in the language studied in high school plus 15 hours in a second language plus Foreign Language Education 432.
2. take 40 hours in the language studied in high school plus Foreign Language Education 432.

Course In Foreign Language Education

432. METHODS AND MATERIALS FOR THE TEACHING OF MODERN FOREIGN LANGUAGES 3 credits. Prerequisite: at least eighteen quarter hours of one modern foreign language, or the equivalent.

*Students with one year of high school credit in a foreign language may take the second quarter of the first year work (102) for 2½ credits and 103 for full credit. Students with two years of high school study in a language may register for 201 and 210. Students with three years of high school study should take 210 and may take a course numbered in the 300's with departmental permission.

Courses In French

- 101, 102, 103. **FIRST YEAR FRENCH** 5 credits each. Fundamentals of the French language: pronunciation, grammar, aural comprehension, reading, and speaking.
- 201, 202, 203. **SECOND YEAR FRENCH** 3 credits each. Prerequisites: French 101, 102, 103, or two years of high school French, or the equivalent. Review of fundamentals, reading, aural comprehension and speaking.
210. **ELEMENTARY CONVERSATION AND COMPOSITION** 2 credits. Prerequisites: French 103, or two years of high school French or the equivalent. May be taken concurrently with French 201.
211. **ELEMENTARY CONVERSATION AND COMPOSITION** 2 credits. Prerequisite: French 210. Continuation of French 210.
300. **FRANCE TODAY** 2-5 credits. Prerequisite: nine credits of second year French or the equivalent. French contributions to literature, other fine arts, philosophy, and science in the contemporary period.
301. **INTRODUCTION TO SEVENTEENTH CENTURY LITERATURE** 3 credits. Prerequisite: nine credits of second year French or the equivalent. (a) The Classical Theater: Corneille, Moliere, Racine; (b) The doctrine of Classicism in *Le Grand Siecle*: Malherbe, Boileau; (c) The *Precieux* Movement; (d) The French Academy; (e) Philosophical thought: Descartes, Pascal.
302. **INTRODUCTION TO NINETEENTH CENTURY LITERATURE** 3 credits. Prerequisite: nine credits of second year French or the equivalent. From the development of Romanticism to 1870. Lectures, discussions, and compositions treat all genres.
303. **INTRODUCTION TO MODERN LITERATURE** 3 credits. Prerequisite: nine credits of second year French, or the equivalent. Selections from representative authors of the late nineteenth and twentieth centuries from the Symbolist Movement to the present day. Lectures, discussions, and explication de *textes* treat the development of the modern novel, drama, and poetry.
310. **INTERMEDIATE CONVERSATION AND COMPOSITION** 2 credits. Prerequisites: nine credits of second year French (including French 211), or the equivalent. Written and oral composition and vocabulary building.
311. **INTERMEDIATE CONVERSATION AND COMPOSITION** 2 credits. Prerequisite: French 310. Continuation of French 310 and explication de *textes*.
312. **INTERMEDIATE CONVERSATION AND COMPOSITION** 2 credits. Prerequisite: French 311. Continuation of French 311.
367. **FRENCH LITERATURE IN TRANSLATION: 19TH AND 20TH CENTURIES.** Readings in Hugo, Balzac, Flaubert, Maupassant, Baudelaire, Gide, Sartre, and others. May be taken in conjunction with History 367 and French 201 and/or French 210 to provide a coordinated program in French language and culture. Summer only. Also offered as English 367.
400. **SPECIAL PROBLEMS** 2-5 credits. Prerequisite: eight credits in French courses numbered 301 or above, or the equivalent and permission of the department. Advanced individual study for majors.
410. **PHONETICS** 3 credits. Prerequisites: French 210, 211, 310, 311, 312. Aims at a mastery of good pronunciation through the study of phonetics. Phonetic transcription and intensive oral practice with special attention given to individual difficulties.

Courses In German

- 101, 102, 103. **FIRST YEAR GERMAN** 5 credits each. Fundamentals of the language: pronunciation, grammar, aural comprehension, reading and speaking.
- 201, 202, 203. **SECOND YEAR GERMAN** 3 credits each. Prerequisites: German 103, or two years of high school German, or the equivalent. Review of fundamentals, reading, aural comprehension and speaking.
210. **ELEMENTARY CONVERSATION AND COMPOSITION** 2 credits. Prerequisites: German 103, or two years of high school German, or equivalent. Speaking, understanding and writing German. May be taken concurrently with German 201.
211. **ELEMENTARY CONVERSATION AND COMPOSITION** 2 credits. Prerequisite: German 210. Continuation of German 210.
300. **READINGS IN CONTEMPORARY GERMAN LITERATURE** 2-5 credits. Prerequisite: nine credits of second year German, or permission of the instructor. Reading and discussion of selected works of present-day German writers.
301. **INTRODUCTION TO THE CLASSICAL PERIOD** 3 credits. Prerequisite: nine credits of second year German, or the equivalent. Selected works of Lessing, Goethe, and Schiller.
302. **INTRODUCTION TO NINETEENTH CENTURY LITERATURE (to 1870)** 3 credits. Prerequisite: nine credits of second year German or the equivalent. Reading and interpretation of representative drama, poetry and narrative prose works. Lectures, discussions, and student reports.
303. **INTRODUCTION TO MODERN LITERATURE (1870-1950)** 3 credits. Prerequisite: nine credits of second year German, or the equivalent. Selected reading from representative authors, lectures, discussions and student reports.
310. **INTERMEDIATE COMPOSITION AND CONVERSATION** 2 credits. Prerequisite: German 211 or the equivalent. Written and oral composition and vocabulary building.
311. **INTERMEDIATE COMPOSITION AND CONVERSATION** 2 credits. Prerequisite: German 310 or the equivalent. Continuation of German 310.
312. **INTERMEDIATE COMPOSITION AND CONVERSATION** 2 credits. Prerequisite: German 311 or the equivalent. Continuation of German 311.
400. **SPECIAL PROBLEMS** 2 to 5 credits. Prerequisite: 8 credits in German courses numbered 301 or above, or equivalent, and permission of the department. Advanced individual study for majors.

Courses In Latin

- 101, 102, 103. **FIRST YEAR LATIN** 5 credits each. A structural approach designed to provide not only a foundation in grammar and an elementary reading knowledge of Latin, but also an introduction to the general laws of language. Offered alternate years, beginning 1962-3.
- 201, 202, 203. **SECOND YEAR LATIN** 3 credits each. Prerequisite: Latin 103, or two years of high school Latin, or the equivalent. Review of fundamentals and selected readings from Cicero, Virgil, Ovid, Petronius and other Roman writers. Offered alternate years, beginning 1961-2.

Courses in Latin Literature in Translation (English 420), Greek Literature in Translation (English 419), and in Classical Mythology (English 312) are available in the English Department.

Courses In Russian

- 101, 102, 103. **FIRST YEAR RUSSIAN** 5 credits each. Fundamentals of the language: pronunciation, grammar, aural comprehension, reading, and speaking.
- 201, 202, 203. **SECOND YEAR RUSSIAN** 3 credits each. Prerequisites: Russian 103, or two years of high school Russian, or the equivalent. Review of fundamentals, reading, aural comprehension, and speaking.
- 220, 221, 222. **RAPID READING IN RUSSIAN** 2 credits each. Prerequisite: Russian 103, or two years of high school Russian, or the equivalent. May be taken concurrently with Russian 201, 202, and 203.

Courses In Spanish

- 101, 102, 103. **FIRST YEAR SPANISH** 5 credits each. Fundamentals of the language: pronunciation, grammar, aural comprehension, reading, and speaking.
- 201, 202, 203. **SECOND YEAR SPANISH** 3 credits each. Prerequisite: Spanish 103, or two years of high school Spanish or the equivalent. Review of fundamentals, reading, aural comprehension, and speaking.
210. **ELEMENTARY CONVERSATION AND COMPOSITION** 2 credits. Prerequisite: Spanish 103, or two years of high school Spanish, or the equivalent. Speaking, understanding and writing Spanish. May be taken concurrently with Spanish 201.
211. **ELEMENTARY CONVERSATION AND COMPOSITION** 2 credits. Prerequisite: Spanish 210. Continuation of Spanish 210.
- 300A. **CIVILIZATION OF SPAIN** 2-5 credits. Prerequisite: nine credits of second year Spanish or the equivalent. Significant elements of Spanish civilization (the fine arts, history and philosophy) presented through Spanish texts. Offered in alternate years.
- 300B. **CIVILIZATION OF SPANISH AMERICA** 2-5 credits. Prerequisite: nine credits of second year Spanish or the equivalent. Significant elements of Spanish American civilization (the fine arts, history and philosophy) presented through Spanish texts. Offered in alternate years.
301. **INTRODUCTION TO SPANISH-AMERICAN LITERATURE** 3 credits. Prerequisite: nine credits of second year Spanish or equivalent. A survey of the literature of Spanish America from the Colonial Period to the present. The important works, prose and poetry, are studied in an historical and sociological framework.
302. **THE SPANISH-AMERICAN NOVEL** 3 credits. Prerequisite: nine credits of second year Spanish or the equivalent. Development of the novel in the late nineteenth and twentieth centuries in Mexico and the South American republics. Special emphasis on the regional character of the Spanish-American novel and the political and social atmosphere in which it was developed.
303. **THE CLASSICAL DRAMA OF SPAIN** 3 credits. Prerequisite: nine credits of second year Spanish or the equivalent. Masterpieces of the Siglo de Oro from Cervantes to Calderon. Special attention is given to those qualities of the drama characteristic of Spanish mentality and mores as these are revealed in the dramatic works of Spain's Golden Age.
310. **INTERMEDIATE CONVERSATION AND COMPOSITION** 2 credits. Prerequisite: nine credits of second year Spanish (including Spanish 211) or the equivalent. Written and oral composition and vocabulary building.
311. **INTERMEDIATE CONVERSATION AND COMPOSITION** 2 credits. Prerequisite: Spanish 211) or the equivalent. Written and oral composition and vocabulary building.

312. **INTERMEDIATE CONVERSATION AND COMPOSITION** 2 credits. Prerequisite: Spanish 311. A continuation of Spanish 311.
400. **SPECIAL PROBLEMS** 2-5 credits. Prerequisite: eight credits in Spanish courses numbered 301 or above, or the equivalent, and permission of the department. Advanced individual study for majors.

INTERDEPARTMENTAL COURSES in

GENERAL EDUCATION

102. **EARTH SCIENCE** 4 credits. The earth as the home of man. Attention is given to the earth's crust, land forms, the atmosphere, the oceans, soils, vegetation. Laboratory sessions include training in map reading and interpretation and the identification of rocks and minerals.
105. **BEHAVIORAL SCIENCE** 4 credits. Man as a biological, psychological, and social organism. Emphasis is given to the processes of perception, learning, and motivation and to the social and cultural context.
121. **HUMANITIES I** 6 credits. Hebrew, Classical, and Early Christian periods.
122. **HUMANITIES II** 6 credits. Middle Ages, Renaissance, and Reformation.
123. **HUMANITIES III** 6 credits. Ages of Rationalism, the Enlightenment, Revolution, and Romanticism.
221. **HUMANITIES IV** 6 credits. The Modern World.

General Education 301 and 401 are in the process of formulation. It is expected that they will be activated in the 1962-63 academic year.

301. **JUNIOR STUDIES** 2 credits. Prerequisites: all required courses in general education or permission.
401. **SENIOR STUDIES** 2 credits. Prerequisites: General Education 301.

DEPARTMENT of GEOGRAPHY

Faculty

Professor: Critchfield, (Chairman).

Associate Professors: Miller, Monahan.

Assistant Professor: Moakherjee.

Arts and Sciences

Geography is concerned with the interrelations between human culture and the natural environment and is, therefore, a suitable core for basic integrated study in the Arts and Sciences curriculum. Students planning professional careers in geography should follow programs leading to a major in the field. Career opportunities for trained geographers exist in such areas as college teaching and research, rural and urban planning, resource management, cartography, transportation analysis, business and industrial location, and several branches of government. A graduate degree is normally a prerequisite to professional advancement. Accordingly, the undergraduate program in geography is designed to provide a foundation for graduate study as well as for career specialization.

The program of the undergraduate major or minor in geography should include fundamental courses in both the natural sciences and the social studies. The department will recommend supporting courses related to the student's career objectives. The student contemplating work toward the Ph. D. degree is advised to acquire reading knowledge of a foreign language and competence in statistics during his undergraduate years. Departmental advisers should be consulted at an early date for assistance in program planning.

Concentrations

MAJOR:

Geography 201 and 207.

Additional courses under advisement to total 50 credits.

MINOR:

Geography 100 or 201.

Additional courses under advisement to total 25 credits.

Teacher Education

For students planning to teach elementary grades the Social Studies Education major, or minor in Geography, is recommended. Prospective junior or senior high school teachers may suitably combine a major or minor concentration in Geography with concentrations in one of the other social studies fields, or in one of the natural sciences.

Concentrations

FIELD MAJOR:

Geography 201, 207, and 470.

Additional courses under advisement to total 40 credits.

FIELD MINOR:

Geography 201 and 470.

Additional courses under advisement to total 20 credits.

Courses

100. **WORLD REGIONAL GEOGRAPHY** 5 credits. Major world regions treated with special attention to population, land, and resources. For students who have not had a high school course in geography.
201. **HUMAN GEOGRAPHY** 3 credits. Interrelations of man and his natural environment, emphasizing cultural influences on world geographic patterns.
207. **ECONOMIC GEOGRAPHY** 5 credits. World resources, industries, commodities, and commerce.
311. **GEOGRAPHY OF ANGLO-AMERICA** 5 credits. Prerequisite: General Education 102, or 3 credits in geography. Physical environments, resources, settlement, and economics of Canada and the United States.
313. **GEOGRAPHY OF CARIBBEAN AMERICA** 3 credits. Prerequisite: General Education 102, or 3 credits in geography. Landforms, climate, vegetation, and soils of Mexico, Central America, and the West Indies and their relationship to history, settlement patterns, and current economic conditions. Emphasis is on the modern way of life as it has been developed from the ancient civilizations.
314. **GEOGRAPHY OF SOUTH AMERICA** 5 credits. Prerequisite: General Education 102, or 3 credits in geography. South American nations, emphasizing their cultural backgrounds, natural environment, economic activities and regional differences. The increasing importance of South America in the economy of the United States is stressed.
315. **GEOGRAPHY OF ASIA** 5 credits. Prerequisite: General Education 102 or 3 credits in geography. Asia's settlement, population, economic resources and activities, and the associated problems.
316. **GEOGRAPHY OF EUROPE** 5 credits. Prerequisite: General Education 102, or 3 credits in geography. Economic, political, and cultural problems of Europe treated regionally.
318. **GEOGRAPHY OF THE PACIFIC** 3 credits. Prerequisite: General Education 102, or 3 credits in geography. Physical environment, resources, and settlements of the Pacific Islands, Australia, and New Zealand.

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319. **GEOGRAPHY OF AFRICA** 3 credits. Prerequisite: General Education 102 or 3 credits in geography. Resources, settlement, peoples, and development of Africa treated regionally.
320. **GEOGRAPHY OF THE U.S.S.R.** 3 credits. Pre-requisite: General Education 102, or 3 credits in geography. Physical environment, resources, industries, population, and settlement of the Soviet Union with emphasis on the nation's role in world affairs.
331. **WEATHER AND CLIMATE** 5 credits. Prerequisite: General Education 102 or equivalent. Elements of climate, climatic regions, and climate as an environmental factor.
333. **BIOGEOGRAPHY** 3 credits. Prerequisite: General Education 102 or equivalent. Origin, distribution, and adaptation of plant and animal associations. The course examines representative plant and animal forms in relation to their physical environment and to man.
341. **URBAN GEOGRAPHY** 3 credits. Prerequisite: General Education 102, or Geography 201. Geographic relations of the modern city. Emphasis is placed upon the development, functions, and problems of American cities.
351. **CARTOGRAPHY** 5 credits. Introduction to map making. The course includes practical experience in map and chart construction as well as study of the principles of grid representation, scale, symbols, lettering, design, and reproduction.
353. **INTERPRETATION OF MAPS AND AERIAL PHOTOGRAPHS** 3 credits. Reading and interpretation of maps and aerial photos. Using various classes of maps and aerial photographs, techniques are presented which are used to identify geographic features of the landscape. The course program includes field work as well as study in the classroom.
401. **GEOGRAPHY OF THE PACIFIC NORTHWEST** 3 credits. Prerequisite: General Education 102, or 3 credits in geography. Pacific Northwest resources and industries and problems in resource development.
421. **CONSERVATION OF NATURAL RESOURCES** 5 credits. Principles and practices in the wise management and economic use of our natural resources with emphasis on the Pacific Northwest. Materials and objectives in conservation education problems are considered.
422. **GEOGRAPHY OF WATER RESOURCES** 3 credits. Prerequisite: General Education 102 or 3 credits in geography. Principles and practices in water use and water conservation. Special attention is given to the distribution of water resources and the problems of water conservation in the United States.
435. **HISTORICAL GEOGRAPHY OF THE UNITED STATES** 3 credits. Prerequisite: Geography 311 or American History. The relation of settlement of the United States to geographic factors. The correlation of history and geography is stressed.
451. **MAPS AND CHARTS IN THE SOCIAL STUDIES** 3 credits. Methods and materials of map and chart construction for classroom use from sources in economics, geography, history, sociology, and related fields. The course includes analysis and application of data used in cartographic representation. Laboratory facilities are provided. Formerly offered as Social Studies Education 451.
452. **ADVANCED CARTOGRAPHY** 3 to 5 credits. Prerequisite: Geography 351 and permission of the instructor. Advanced problems and laboratory projects in map and chart construction.
460. **THE TEACHING OF GEOGRAPHY** 3 credits. Prerequisite: 10 credits in geography. Source materials and methods of geographic instruction in the public schools.

470. **GEOGRAPHY AND WORLD AFFAIRS** 3 credits. Prerequisite: 3 credits in geography. Geographical basis of contemporary world problems and international relations. Military strategy, tension zones, natural resources, boundaries, and other aspects of political geography are considered with special attention given to the current problem areas of the world.
480. **PROBLEMS IN GEOGRAPHY** 2 to 5 credits. Special projects under supervision. Opportunities are provided for development of teaching units.
481. **READINGS IN THE HISTORY AND THEORY OF GEOGRAPHY** 3 credits. Prerequisite: 20 credits in geography. Directed readings from the works of leading geographers of the past and present on the nature and development of geography.
490. **SEMINAR IN GEOGRAPHIC RESEARCH AND WRITING** 3 credits. Prerequisite: 20 credits in geography. Source materials and techniques of geographic research. Selected topics are investigated in detail as a basis for written papers.
550. **GEOGRAPHY IN THE SOCIAL STUDIES** 3 credits. Methods, materials, and concepts of geography as applied to social studies teaching at the elementary and secondary levels. Particular attention is given to the role of geography in social studies teaching units. The dual relationship of geography to the social studies and the natural sciences is examined. Formerly offered as Social Studies Education 550.

DEPARTMENT of GEOLOGY

Faculty

Associate Professors: Christman (Chairman); Pabst.

Instructor: Easterbrook.

The Department of Geology offers courses for students in the Teacher Education, Arts and Sciences, and Pre-professional curricula.

Teacher Education

For students planning to teach in the elementary or junior high school the General Science major or minor is recommended (see page 206). Courses may be selected under advisement from geology as well as from the science education courses which are specially adopted for the classroom teacher. Students wishing greater specialization in Geology may select a field minor in geology.

Concentrations

FIELD MINOR (A second teaching field for high school teachers): General Education science requirements: General Education 102, Biological Science 104 and Physical Science 101. One quarter of physics or chemistry and one quarter of General Education 405 or 406 may be substituted for Physical Science 101.

Selected courses in geology and related subjects under advisement of the Geology Department to total not less than 32 credits, including general education science requirements.

Arts and Sciences

For the students interested in a professional career, a major or minor in geology is offered. Professional careers in geology include: exploration for minerals, petroleum, and coal; research in earth materials in government and industry, and college teaching. A background in geology may be found helpful in the following professions: law, business administration, forestry and engineering. Nearly all professional positions require graduate work leading to the M.S. or Ph.D. degree. A function of the professional program in the Arts and Sciences Division is to prepare the student for graduate study.

The undergraduate major in geology should be supported by a well rounded background in mathematics, chemistry, physics, and biology, necessary supporting fields to geologic study. Students who plan eventually to work toward the Ph.D. degree should gain a reading knowledge of French or German during their undergraduate years.

Concentrations

MAJOR: General education science requirements: General Education 102, Biological Science 104 and Physical Science 101. It is suggested that Chemistry 121 or 125 and General Education 405 or 406 be substituted for Physical Science 101.

50 credits in geology and related subjects selected under departmental advisement to include program (a) or (b).

(a) Emphasis in Paleontology: Geology 211, 312, 316, 416 and 30 additional credits;

Supporting courses: Botany 252, 352; Zoology 262, 366; Biology 265 or Zoology 461.

(b) Emphasis in Physical Geology: Geology 211, 217, 312, 313, 314, 315, 318, 416 and additional courses to total not less than 50 credits.

Supporting courses. A minor should be taken in one of the following fields: mathematics, chemistry or physics. One-year sequences are to be taken in each of the other two fields.

MINOR: General education science requirements: General Education 102, Biological Science 104 and Physical Science 101. One quarter of physics or chemistry and one quarter of General Education 405 or 406 may be substituted for Physical Science 101.

25 credits in geology selected under advisement of the Geology Department.

Program Planning

The student interested in a geology major should consult early in his college career with a member of the department for assistance in planning his course. Schools offering graduate study in geology require a "B" average in science for entrance. The following sequences of science courses are suggested for the first two years:

First	Chem.	*121, 122, 131
Year	Math.	*101, 102, 103
	Biol.	104,
	Gen. Ed.	102
Second	Physics	231, 232, 233
Year		(or 131, 132, 133)

*Students eligible for advanced placement in chemistry or mathematics should consult with an adviser in the appropriate department before enrolling in the introductory courses.

Courses

211. **PHYSICAL GEOLOGY** 5 credits. Origin, composition, and structure of the earth; identification of common rocks and minerals; the evolution of the surface features of continents, and interpretation of land forms from maps.
217. **MINERALOGY** 5 credits. Prerequisite: Geology 211 or General Education 102. Elements of crystallography; comprehensive study of chemical and physical properties of minerals and identification of rock-forming minerals and other common minerals.
300. **SPECIAL PROJECTS IN GEOLOGY** 2 to 5 credits. Prerequisites: 10 credits in geology and the consent of the instructor. Special projects under supervision.
310. **GEOMORPHOLOGY** 5 credits. Prerequisite: Geology 211, Geography 103, or General Education 102. Landscape features, the sculpturing of mountains, hills, plains, and plateaus by surface processes.
311. **COMMON ROCKS AND MINERALS** 3 credits. Prerequisite: General Education 102 or permission of the instructor. More detailed work with rocks and minerals than is afforded in General Education 102 or Geology 211. The material to be considered includes the origin, occurrence, uses and identification of minerals and rocks.
312. **HISTOLOGICAL GEOLOGY** 5 credits. Prerequisite: General Education 102; Geology 211 and Geology 316 desirable. History of the earth as interpreted from the rocks and the story of the development of its inhabitants. Emphasis is upon the geologic history of North America and the Pacific Northwest. Field trips supplement classroom work.
313. **IGNEOUS PETROGRAPHY AND PETROLOGY** 3 credits. Prerequisite: Geology 318. Origin, occurrence, and classification of igneous rocks and minerals and use of thin sections in identifying igneous minerals.
314. **SEDIMENTARY PETROGRAPHY AND PETROLOGY** 3 credits. Prerequisites: Geology 318 and preferably Geology 313. Origin, occurrence, and classification of sedimentary rocks and minerals and use of thin sections in identifying sedimentary minerals.
315. **METAMORPHIC PETROGRAPHY AND PETROLOGY** 3 credits. Prerequisites: Geology 318, 313, and preferably 314. Origin, occurrence, and classification of metamorphic rocks and minerals and use of thin sections in identifying metamorphic minerals.
316. **PRINCIPLES OF PALEONTOLOGY** 5 credits. Prerequisites: General Education 102, Biology 104, or their equivalents. Life on the earth as revealed by its inhabitants past and present. The course includes field trips to accessible fossil-collecting localities.
318. **OPTICAL MINERALOGY** 5 credits. Prerequisite: Geology 217. Optical phenomena as related to mineralogy and identification of minerals from optical properties with the use of the polarizing microscope.
319. **ECONOMIC GEOLOGY** 3 credits. Prerequisite: Geology 217. Economic minerals and ore deposits; their genesis and occurrence.
384. **EARTH SCIENCE FOR THE ELEMENTARY SCHOOL** 3 credits. Prerequisite: General Education 102. Concepts, experiences and materials from the Earth Sciences adaptable to the elementary and junior high school classroom.
399. **SEMINAR IN GEOLOGY** 1 credits Prerequisites: permission of the instructor; not open to freshmen. Geological reports, papers, and discussion.
400. **SPECIAL PROJECTS IN GEOLOGY** 2 to 5 credits. Prerequisite: consent of the instructor. Special projects under supervision.

410. **FIELD GEOLOGY** 3 or 5 credits. Prerequisites: Geology 312 and 416. Practical training in methods of geological field investigations; use of field instruments, and making of geologic maps. Field work consists of a supervised geologic investigation of a local area.
413. **GEOMORPHOLOGY OF WESTERN UNITED STATES** 5 credits. Prerequisite: 5 credits in geology or Physical Geography. Geological forces and processes that have shaped the landscape of the West. Designed for students interested in geology and for teachers interested in utilizing materials of a local geologic character in the classroom. Field trips are emphasized as an essential part of the course. This course is offered in even-numbered years.
416. **STRATIGRAPHY** 5 credits. Prerequisite: Geology 312. Analysis of physical and biologic characteristics of stratified rock sequences; principles of correlation, and determination of geologic age and facies relationships.
417. **STRUCTURAL GEOLOGY** 5 credits. Prerequisite: Geology 312. Description, classification, and interpretation of earth structures. Laboratory work emphasizes solution of structural problems by use of geologic maps.

DEPARTMENT of HISTORY

Faculty

Professors: Arntzen, Murray (Chairman).

Associate Professors: Boylan, Radke, Schuler.

Assistant Professors: Buttrick, Hiller, McAree, Whittemore.

Teacher Education

Concentrations

FIELD MAJOR:

History 203-204 or acceptable upper division substitutes.

Additional courses under advisement to total 45 credits.

FIELD MINOR:

History 203-204. Additional courses, including one upper division course, under advisement to total 20 credits.

Arts and Sciences

Concentrations

MAJOR:

History 203-204 plus additional courses in history to total not less than 50 credits of which 20 must be upper division.

Supporting courses: Government 250 and one or more basic courses in other fields of the social studies. A foreign language is highly recommended.

MINOR:

History 203-204 with additional courses in history to total not less than 25 credits.

Courses

(Courses numbered 300 and above are suitable for graduate credit except as noted.)

- 105, 106. HISTORY OF CIVILIZATION** 5 credits each. Not open to entering freshmen. Human development from earliest times to the present. The basic viewpoint of this course is an orientation to contemporary life and culture based on a study of the growth of human culture. In addition to a review of the course of human events, the development of institutions, arts, and ideas is studied.
- 203. AMERICAN HISTORY TO 1865** 5 credits. Not open to students having credit for History 205 or History 206. American history from the European background to the end of the Civil War.

204. **AMERICAN HISTORY SINCE 1865** 5 credits. Not open to students who have earned credit for the previously offered courses, History 206 or 207. American history from the end of the Civil War to the present.
270. **HISTORY OF THE WESTERN HEMISPHERE** 5 credits. Western Hemisphere history from European origins to the present.
280. **HISTORY OF THE FAR EAST** 5 credits. The Far East from 1500 to the present.
330. **HISTORY OF ENGLAND, 1485-1783** 5 credits. Political, social, economic, and diplomatic history of England from the accession of the Tudors to the end of the War of the American Revolution. Special attention is given to the constitutional developments of the period.
331. **HISTORY OF ENGLAND, 1783 TO THE PRESENT.** 5 credits. Political, social, economic, and diplomatic history of England from the Age of Pitt and Fox to the present. Special attention is given to the development of parliamentary institutions in this period.
341. **EUROPEAN ECONOMIC HISTORY** 5 credits. European economic development from the origins of capitalism to the present. Special emphasis is placed on the period since 1750, marking the emergence of modern industrialism.
347. **EUROPEAN INTELLECTUAL HISTORY** 5 credits. The development of the European mind from the Seventeenth Century to the present.
360. **AMERICAN ECONOMIC HISTORY** 5 credits. American economic development from colonial times to the present with particular emphasis upon the later periods.
367. **FRANCE IN THE MODERN WORLD** 5 credits. A survey of the leading political, social and intellectual trends in 19th and 20th century French history. It is recommended that this course be taken in conjunction with French 367 and French 201 or 210. Enrollment priority will be given to those students taking these courses concurrently. Summer only.
385. **HISTORY OF AFRICA** 5 credits. African history from the Sixteenth Century to the present.
388. **HISTORY OF THE BRITISH EMPIRE** 5 credits. The development of the overseas empire of Great Britain from Elizabethan times to the present.
391. **HISTORY AND GOVERNMENT OF WASHINGTON** 3 credits. Background for public school teachers of state history and government in the public schools. The general history of the Pacific Northwest, state development, samples of local history, and state and local government, are covered. This course meets the requirements for state certification. (Not suitable for graduate credit.)
399. **HISTORICAL RESEARCH** 3 credits. Introduction to historical research methods. A particular historical field is chosen for analysis and the student is then assigned a specific project. (Not suitable for graduate credit.)
408. **WORLD WARS OF THE TWENTIETH CENTURY** 5 credits. A military analysis of the Great Wars of this century with emphasis on the strategic and tactical considerations which governed the course of these conflicts.
410. **ANCIENT NEAR EAST** 5 credits. The genesis of Western Civilization: our cultural debt to the ancient Mesopotamians, Egyptians, Hittites, Phoenicians, Aramaeans, Hebrews, Assyrians, and Persians.
411. **GREECE** 5 credits. The Greek World from the Minoan-Mycenaean Period to about 220 B. C.
412. **ROME** 5 credits. From the Foundation of Rome (753 B. C.) to the death of Theodosius I (395 A. D.) and the division of the Empire.
415. **WESTERN MEDIEVAL EUROPE** 5 credits. Political, social, economic, and cultural developments in Western Europe from the death of Theodosius I (395 A. D.) to the eve of the Hundred Years War (1337).

416. **THE BYZANTINE EMPIRE** 5 credits. From the dedication of Constantinople to its fall (330-1453). (423)
420. **THE RENAISSANCE AND THE REFORMATION** 5 credits. The transition from the Medieval to the Modern: Western Europe from the eve of the Hundred Years War to the Treaty of Westphalia (1337-1648). (431)
425. **THE ERA OF THE FRENCH REVOLUTION AND NAPOLEON, 1789-1815** 5 credits. (446) Europe on the eve of the Revolution; benevolent despotism, the Enlightenment; ideas and course of The Revolution; consolidation and changes under Napoleon; the impact of the Revolution on Europe; fall of Napoleon; lasting results of the era.
426. **MODERN EUROPE, 1648-1815** 5 credits. Main currents of European history in the seventeenth and eighteenth centuries. Emphasis is placed on the development of the modern state system and the conflict between the monarchs and the growing middle class. (332)
427. **MODERN EUROPE, 1815-1914** 5 credits. Main historical currents of the nineteenth century. Emphasis is placed upon the political, economic, social, and diplomatic developments that led up to the First World War. (333)
428. **MODERN EUROPE, 1914-1945** 5 credits. Europe in the 20th Century. The course considers the results of World War I, attempts at world organization, the Succession States of Central Europe, the disintegration of world order leading to World War II, and the global conflict that followed. (434)
429. **EUROPE SINCE 1945** 3 credits. Major political, economic, and social developments since the end of the Second World War. The origin and operation of the cold war and the attempts of Europe to adjust to the changing status of the continent are stressed. (435)
432. **HISTORY OF RUSSIA, 1689-1905** 3 credits. Political, social, economic, and diplomatic history from Peter the Great to the Revolution of 1905. Particular attention is given to those attitudes and factors which have continued to influence the policy and development of the modern Russian state. (460)
433. **HISTORY OF RUSSIA, 1905 TO THE PRESENT** 5 credits. Political, social, economic, and diplomatic history in the twentieth century. The course emphasizes the period since the Bolshevik Revolution. (461)
435. **HISTORY OF FRANCE SINCE 1815** 5 credits. Political, social, and economic development in the nineteenth and twentieth centuries. The focus of the course is designed to explain the historical background of one of the leading states in Europe. (462)
437. **HISTORY OF GERMANY** 5 credits. From the Thirty-year War to the present. (464) Emphasis is placed on the rise of Brandenburg-Prussia and the role Germany has played in the international state system.
450. **AMERICAN COLONIAL HISTORY** 5 credits. The colonial period of American (451) History from the discovery of America to the end of the American Revolution.
452. **THE AGE OF JEFFERSON AND JACKSON** 5 credits. The United States from the (453) Jefferson Administration through the times of Andrew Jackson to the sectional controversy that culminated in the Civil War.
453. **THE CIVIL WAR AND RECONSTRUCTION** 5 credits. (a) The development of (454) rival nationalisms in the mid-nineteenth century in the United States, (b) The problems of the war in the North and the South, (c) The efforts toward reunion, (d) the new problems in the United States in 1877.
455. **THE PROGRESSIVE MOVEMENT** 5 credits. Economic, social, and political protest (388) in America from the Civil War to 1920. Major emphasis is placed on the growth and decline of the Progressive Party between 1900 and 1916.

457. **THE UNITED STATES IN THE TWENTIETH CENTURY** 5 credits. Political, economic, social, and intellectual development in the United States from 1900 to 1945. (458)
459. **THE UNITED STATES SINCE 1945** 3 credits. Internal and international consequences of the rise of the United States as a world power since the end of the Second World War.
461. **DIPLOMATIC HISTORY OF THE UNITED STATES** 5 credits. The relationship of the United States to world politics from colonial times to the present, with special emphasis given to the major episodes in American diplomatic history. (381)
463. **AMERICAN CONSTITUTIONAL HISTORY** 5 credits. Constitutional development of the United States from the Revolutionary era to the present. (382)
465. **HISTORY OF THE WEST** 5 credits. The westward movement from the Allegheny Mountains to the Pacific Ocean with special emphasis upon the Far West. (416)
469. **GREAT PERSONALITIES OF AMERICAN HISTORY** 3 credits. Biographical approach to American history based on an evaluation of the careers of typical American leaders in public affairs, the arts, and ideas. Summer only. (442)
471. **HISTORY OF CANADA** 5 credits. From the period of French colonization to the present.
473. **HISTORY OF LATIN AMERICA** 5 credits. From the period of early Spanish and Portuguese colonization to the present. (475)
481. **HISTORY OF CHINA** 5 credits. Chinese history from the Ming Dynasty to the present.
482. **HISTORY OF INDIA** 5 credits. Modern India in its political, social, economic, and cultural development.
483. **ASIA IN THE TWENTIETH CENTURY** 3 credits. Impact of the western world on the Orient in the light of Asiatic development since 1900. Special consideration is given to Asiatic developments which underly the relationship of Asia to the world. (363)
501. **HISTORIOGRAPHY** 5 credits. Analysis of historians and historical literature.
502. **WRITING SEMINAR IN HISTORY** 5 credits. Prerequisites: 36 hours of history or departmental permission. Material and methodology of historical research. This course involves research and writing, and is particularly appropriate for those who plan to teach in the field of history. Summer only.
540. **FIELD COURSE--MODERN EUROPEAN HISTORY** 5 credits. Prerequisites: 36 hours of history or departmental permission. Historical literature of the age of Metternich (1815-1848). Summer only.
553. **FIELD COURSE--AMERICAN HISTORY** 5 credits. Prerequisite: 36 hours of history or departmental permission. Historical literature of the Civil War and Reconstruction. Summer only. (554)
555. **FIELD COURSE--AMERICAN HISTORY** 5 credits. Prerequisite: not less than 36 hours of history or departmental permission. Historical literature in the American Progressive movement. Summer only. (588)
573. **FIELD COURSE--LATIN AMERICAN HISTORY** 5 credits. Prerequisite: 36 hours of history or departmental permission. Historical literature in the history of Latin American and inter-American relations. Summer only. (575)

DEPARTMENT of HOME ECONOMICS

Faculty

Associate Professor: Ramsland (Chairman).

Instructors: Larrabee, Turck.

Courses in home economics represent five divisions:

Foods and Nutrition

Textiles and Clothing

Family Relationships and Child Development

Family Economics and Home Management

Housing, Home Furnishings, and Equipment

Those who select a major or minor in home economics are required to take courses in all divisions.

Many of the department offerings are open to both men and women on an elective basis.

Teacher Education

1. A field major in home economics qualifies the student to teach homemaking at the junior high level or non-vocational senior high school level.

Students anticipating a home economics vocational teaching certificate at the end of the fifth year of study at an institution granting the vocational certificate, may complete the requirements for the bachelor's degree at Western Washington State College. A specific program of studies is followed with a 45-hour major in home economics and required supporting courses.

2. A field minor in home economics may be taken as a general or specialized minor to meet the needs of the student. Elementary education teachers, physical education teachers, industrial arts teachers, and art teachers may find a minor especially appropriate. A field minor in home economics is not designed for teaching home economics at either the junior high school or the senior high school levels.

Concentrations

FIELD MAJOR:

Home Economics 100, 164, 120, 153, 250, 253, 260, 272, 334, 338, 341, 375, 420, 424, 430, 410.

Supporting courses: Art 102, Art 260.

Students anticipating vocational certification have the following supporting courses to take in addition: Chemistry 125, 251; Economics 201.

FIELD MINOR:

20 credits taken under departmental advisement. Preliminary consultation with an adviser is essential before undertaking the minor.

Arts and Sciences

A major or a minor in home economics is appropriate to those who anticipate a career in home making.

Concentrations

MAJOR:

Home Economics: 100, 164, 120, 153, 250, 253, 260, 272, 334, 338, 370, 375, 420, 424, 430, and one course from 362, 363, 460 or 463.

Supporting courses: Art 102, 260; Economics 201; Sociology 201, 351.

MINOR:

Home Economics 100, 120, 153, 250, 260, 334, 375, and either 420 or 424.

Junior College Division

A one- or two-year program may be planned for the student who anticipates transfer to more specialized study at another college or university.

A student may elect courses for a one- or two-year program to meet personal needs.

Many of the department offerings are open to both men and women on an elective basis.

Courses

100. INTRODUCTION TO HOME ECONOMICS 1 credit. Orientation in the five areas of home economics and a review of the field in terms of history, philosophy, and professional opportunities. The American family and its problems are emphasized as the primary concern in the study of home economics.
120. THE PRE-SCHOOL CHILD IN THE FAMILY 2 credits. Intellectual, physical, social, and emotional development of the pre-school child. The course emphasizes the relationship of the child to the family in all these aspects, including observation of the pre-school child.
- (123)

153. **MEAL PREPARATION** 4 credits. Basic principles of food preparation, food purchasing, and serving of meals, including laboratory experience, lecture and demonstration.
159. **NUTRITION FOR NURSES** 3 credits. Open to pre-nursing students only. Fundamental principles of human nutrition and the planning of dietaries to meet normal standards. (126N)
161. **BEGINNING CLOTHING CONSTRUCTION** 3 credits. Home Economics 164 recommended but not required. Not open to those majoring in home economics. Beginning sewing techniques are taught in the construction of two garments.
164. **TEXTILES FOR THE CONSUMER** 3 credits. Prerequisite or concurrent: Art 101, (112) 102, or 260. Fabrics used for clothing and household purposes. Sources of textiles and the manufacture, finishes, identification, selection, and care of fabrics are considered.
166. **CLOTHING SECTION** 2 credits. Prerequisite: Art 101, 102, or 260. Home Economics 164 is recommended but not required as previous experience. Not open to those majoring in home economics. The selection of clothing from both aesthetic and consumer aspects, wardrobe planning guided by fashion, color, design, texture, personality, occasion, and income. (160)
250. **NUTRITION** 2 credits. Fundamental principles of human nutrition and the study of modern dietary standards as applied to normal conditions of every-day living. Emphasis is given to nutrition education in the modern school. (210)
252. **MEAL PREPARATION (Men)** 2 credits. Planning, preparing, and serving simple, appetizing meals. Emphasis is on meal management.
253. **FAMILY MEAL MANAGEMENT** 3 credits. Prerequisites for majors: Home Economics 153 and 250. Laboratory experience in planning, preparing, and serving meals for the family and guests. Emphasis is on management of time, energy, and money and on creativity in planning and serving meals. (251)
260. **CLOTHING SELECTION AND CONSTRUCTION** 5 credits. Selection of clothing from both the aesthetic and consumer aspects. Wardrobe planning guided by color, design, texture, and personality is included. A laboratory course in clothing construction incorporating new construction techniques and methods.
261. **INTERMEDIATE CLOTHING CONSTRUCTION** 3 credits. Prerequisite: Home Economics 161; Home Economics 164 is recommended but not required as previous experience. Not open to those majoring in home economics. This laboratory class is concerned with the actual construction of garments. Pattern adaptation, principles of fitting, advanced sewing techniques, and manipulation of present-day fabrics are stressed.
267. **WEAVING** 3 credits. Weaving taught through the use of a variety of looms and materials. Also offered as Industrial Arts 201. (201)
268. **NEEDLECRAFT** 2 credits. Prerequisite: Art 102 or 260. Laboratory experience in applying various embroidery stitches and needlework designs to household linens and clothing. (265)
272. **HOUSEHOLD EQUIPMENT** 3 credits. Modern household equipment; its selection, operation, and care. Demonstrations, field trips, and laboratory experiences are included in the course.
300. **SPECIAL PROBLEMS IN HOME ECONOMICS** 1.5 credits. (See Home Economics 400).
334. **FAMILY FINANCE** 3 credits. Prerequisites: General Education 105 and Economics 201. Management of family income and expenditures in the changing family cycle. The financial problems of the family as a social and economic unit in the community are considered. (320)

338. **CONSUMER ECONOMICS** 2 credits. Prerequisites: General Education 105 and (321) Economics 201. Intelligent selection of consumer goods; the understanding of the consumer's obligations and of the aids and protections available to him.
340. **DEMONSTRATION TECHNIQUES** 2 credits. Prerequisite: 20 credits of prescribed (353) courses in home economics. Basic demonstration techniques in various areas of home economics. Opportunity is given for individual demonstrations of materials and equipment.
341. **HOME ECONOMICS EDUCATION** 3 credits. Prerequisites: junior standing and (345) 20 hours of prescribed home economics. A study of the philosophy, teaching methods, and curriculum in the homemaking programs of the junior and senior high school.
350. **PROBLEMS IN NUTRITION** 3 credits. Prerequisites: Home Economics 153 and (310) 250. Significant problems in human nutrition including (a) those related to the family, such as food for infants, children, and expectant mothers, and adequate family diet in relation to cost; (b) the school lunch program, its objectives and management; (c) nutrition education in the school; (d) the use of experimental animals for nutrition research; (e) a review of current developments in the field.
353. **FAMILY MEAL MANAGEMENT** 3 credits. Prerequisites for majors: Home Eco- (351) nomics 153 and 250. Laboratory experience in planning, preparing, and serving meals for the family and guests. Social functions such as teas, buffet meals, and other group functions are included. Emphasis is on management of time, energy, and money and creativity in planning and serving meals. This course is offered only in the summer session.
362. **FAMILY CLOTHING** 2 credits. Prerequisite: Home Economics 161 or 260 or consent of the instructor. Important consideration in the selection of clothing for the family and in the construction of children's garments. This is a lecture and laboratory course.
363. **FLAT PATTERN AND DRAPING** 3 credits. Prerequisite: Home Economics 161 or (365) 260 or 261. Laboratory course work with the basic theory and principles of pattern making and draping techniques.
365. **NEW FABRICS AND FINISHES** 2 credits. Home Economics 164 is recommended (312) but not required as previous experience. A study of the newer synthetic fabrics used for clothing and household purposes. Consideration is given to chemical and physical properties, special finishing processes, identification, selection, use, and care of the newer fabrics. This course is offered only in the summer session.
368. **HISTORY OF COSTUME** 2 credits. Prerequisite: Art 102 or 260. From the (364) Egyptian period to the present day, emphasizing influence on modern fashions.
370. **THE HOUSE: ITS PLANNING AND ARCHITECTURE** 5 credits. Prerequisite: Art 102 or 260. The history of architecture and housing problems for various groups. Home planning in terms of construction, space, equipment and family cycle is considered. Laboratory experience and field trips are included.
375. **HOME FURNISHING** 5 credits. Prerequisite: Art 102 or 260; Home Economics 164 is recommended but not required. Selection and arrangement of furniture and furnishings from aesthetic and economic aspects. The history of furniture and decoration from traditional to contemporary times is discussed. Laboratory experiences and field trips are included.
400. **SPECIAL PROBLEMS IN HOME ECONOMICS** 1-5 credits. Prerequisite: consent of the department chairman. Advanced students who have a creditable record in home economics may work on a special problem by conference arrangement with the instructor.
410. **SEMINAR IN HOME ECONOMICS** 1-5 credits. Prerequisites: 36 hours in home (447) economics and permission of the instructor. Reading and discussion of recent literature and research in the five areas of home economics.

420. LABORATORY EXPERIENCE WITH THE PRE-SCHOOL CHILD 3 credits. Prerequisite; Education 355; additional prerequisite for Home Economics majors: Home Economics 120. Observation of children of various ages and participation in a play school laboratory experience. The development of the child from pre-natal through the pre-school child is studied, with emphasis on guidance by the family. The teaching of child development in the home economics curriculum is considered.
424. FAMILY RELATIONSHIPS 3 credits. Prerequisites: General Education 105, Home Economics 120 and 420 and Sociology 351 are recommended but not required. Fundamental principles and attitudes which underlie satisfactory family life and the adjustment to personal, economic, and social problems which concern the family. The teaching of family life education in the home economics curriculum is considered.
430. HOME MANAGEMENT 2 credits. Prerequisites: junior standing, Home Economics 253, 334, 375. Development and methods of home management. Practical and experimental problems in home management, including work simplification involving time and motion studies, are considered.
431. WORKSHOP IN HOME MANAGEMENT 2 credits. Prerequisite: Home Economics teaching experience. Study and discussion of management principles and current management practice with special emphasis on the teaching of management in the home economics program. Summer only.
446. TEACHING PROBLEMS IN HOMEMAKING EDUCATION 2 credits. Workshop dealing with present-day problems in the teaching of home-making. Summer only.
448. EVALUATION IN HOME ECONOMICS 2 credits. Prerequisites: Home Economics 341 or equivalent; student teaching in home economics or graduate status. Application of current concepts in evaluation to the field of home economics. Evaluation devices published in the field are reviewed. The class receives practice in the construction and use of measurement instruments.
455. EXPERIMENTAL COOKERY 3 credits. Prerequisites: Home Economics 153, Chemistry 125 and 226. Application of scientific principles and experimental procedure to the cooking processes.
460. TAILORING 3 credits. Prerequisite: Home Economics 260 or 261; Home Economics 164 is recommended but not required. Laboratory work in modern tailoring techniques applied to the construction of garments.
463. THE BISHOP METHOD OF CLOTHING CONSTRUCTION—beginning course—3 credits. Introduction to the Bishop method of clothing construction and development of some skill in its application. Emphasis is placed on the Bishop scientific short-cut techniques and on application of the method of teaching.
469. SPECIAL PROBLEMS IN CLOTHING CONSTRUCTION 3 credits. Prerequisite: Home Economics 161 or 260. Sewing and fitting problems, designer patterns, and tailoring techniques. Consideration is given to man-made and hard-to-handle fabrics. New methods in the teaching of clothing construction and the use of modern sewing machines are also presented. Two garments are constructed in the laboratory class, the choice of the garment depending on personal or teaching needs. Summer only.
475. ADVANCED HOME FURNISHING 3 credits. Prerequisites: Home Economics 112 and 375. Traditional and contemporary furniture and furnishings with emphasis on fabrics, wall coverings, floor coverings, accessories, color, and arrangement. The course involves both individual projects and field trips.
476. SURVEY OF CONTEMPORARY DESIGN IN HOME FURNISHINGS 2 credits. Prerequisites: Home Economics 375. American, European, and Oriental influences on contemporary design in home furnishings with attention to new developments in materials, fabrics, and finishes used in decorative and useful objects.

500. SPECIAL PROBLEMS IN HOME ECONOMICS 1-5 credits. (See Home Economics 400.)

INTERDEPARTMENTAL COURSES in HONORS

151. TUTORIAL I 2 credits.
152. TUTORIAL I 2 credits.
153. TUTORIAL I 2 credits.
161. SCIENCE COLLOQUIUM I 2 credits.
162. HUMANITIES COLLOQUIUM I 2 credits.
163. SOCIAL SCIENCE COLLOQUIUM I 2 credits.
251. TUTORIAL II 2 credits.
252. TUTORIAL II 2 credits.
253. TUTORIAL II 2 credits.
261. SCIENCE COLLOQUIUM II 2 credits.
262. HUMANITIES COLLOQUIUM II 2 credits.
263. SOCIAL SCIENCE COLLOQUIUM II 2 credits.
290. SUMMER READINGS I 2 credits.
300. INDEPENDENT STUDY.
351. TUTORIAL III 2 credits.
352. TUTORIAL III 2 credits.
353. TUTORIAL III 2 credits.
361. SCIENCE COLLOQUIUM III 2 credits.
362. HUMANITIES COLLOQUIUM III 2 credits.
363. SOCIAL SCIENCE COLLOQUIUM III 2 credits.
390. SUMMER READINGS II 2 credits.

DEPARTMENT of INDUSTRIAL ARTS

Faculty

Professor: Atteberry (Chairman).

Associate Professors: Channer, Rice, Schwalm.

Assistant Professor: Hepler, Olsen.

Instructor: Bailey, Hauser.

Teacher Education

Concentrations

FIELD MAJOR: Industrial Arts 491, 493, plus 34 additional credits under departmental advisement.

FIELD MINOR: Industrial Arts 493, plus 23 additional credits under departmental advisement.

Arts and Sciences

Concentrations

MAJOR: Courses under departmental advisement to total 45 credits.

MINOR: Courses under departmental advisement to total 20 credits.

Courses In Industrial Arts

110. **GENERAL DRAFTING** 3 credits. Fundamentals of mechanical and freehand drawing and planning techniques, with practice in designing and drawing techniques.
111. **INDUSTRIAL ARTS DESIGN** 2 credits. Prerequisite: Industrial Arts 110. Design of industrial products. Emphasis is placed on creativeness or inventiveness in the functional, practical application of tools, machines, and materials in the solution of problems.
201. **WEAVING** 3 credits. Weaving, taught through the use of a variety of looms and materials. Also offered as Home Economics 201.
210. **ENGINEERING DRAWING** 3 credits. Use of drafting instruments and the art of freehand lettering, geometrical construction, and technical sketching. Included are the principles of orthographic projection, sections, isometric and oblique pictorial drawing, and duplication methods.
211. **ENGINEERING DRAWING** 3 credits. Prerequisite: Ind. Arts 210. Continuation of drafting techniques, emphasizing working drawings of machine parts, double auxiliary views, fasteners, developments, pictorial representations, and duplication methods.

212. **DESCRIPTIVE GEOMETRY** 3 credits. Prerequisites: Ind. Arts 210 and 211. Theory and problems with practical application and the projection of points, lines, surfaces, and solids.
223. **GENERAL METALS** 5 credits. Introductory course to the following metal areas: art metal, bench metal, sheet metal, forging, pattern making, foundry, welding, and machining.
231. **GENERAL WOODS** 5 credits. Elementary hand woodworking and the use of common power equipment. Experiences in woods are provided in problems related to materials, processes, production, tool maintenance, shop management, and demonstrations.
270. **APPLIED ELECTRICITY** 3 credits. Theory and practice in electricity. Projects and related studies involving the principles of electricity, electrical construction, repair, and maintenance comprise the activities of the course.
280. **POWER MECHANICS** 3 credits. Basic operating principles of heat engines involving the practical application of theory on automotive, small gas, and aircraft engines.
300. **SPECIAL PROBLEMS** 1-5 credits. Prerequisite: consent of the instructor. A student may extend his competencies in areas not offered through group instruction such as: wood carving, showcard writing, plastics, copper enameling, etc.
301. **CRAFTS** 2-3 credits. Fundamental skills useful in children's summer recreation, summer camp activities, and club programs. Experiences include weaving, simple wood carving, tin-can craft, toy making, puppets, the making of booklets, and the use of wood and clay. Remedial teachers find a knowledge of this work useful.
302. **JEWELRY AND LAPIDARY** 3 credits. Stone cutting and jewelry making, involving techniques of shaping gem stones, forming and joining of metal shapes, and enameling on metal. Attention is given to the development of an appreciation for creative design through the use of color, form, and texture.
303. **LEATHER** 3 credits. Techniques in cutting, tooling, and fabricating projects on leather.
304. **JEWELRY DESIGN** 3 credits. Design and construction of contemporary jewelry in various metals, with emphasis on silver. The work of the course includes the setting of stones. Also offered as Art 304.
305. **INDUSTRIAL ARTS CERAMICS** 3 credits. Techniques in working with clay, experimenting with glazes, and operating a kiln.
312. **ADVANCED DRAFTING** 3 credits. Prerequisite: Ind. Arts 110. Problems are completed in machine drawing, pattern drafting, boat drawing, and lofting. This course is designed for prospective industrial arts teachers.
313. **ARCHITECTURAL DRAWING AND HOUSE PLANNING** 3 credits. Prerequisite: one course in technical drawing, procedure in house planning, drawing and rendering. A detailed plan is required of each student.
314. **GRAPHIC GEOMETRY FOR INDUSTRIAL ARTS TEACHERS** 3 credits. Prerequisites: Industrial Arts 110 or 210 and 211. Problem solving in drafting technical solutions through the use of descriptive geometry techniques.
320. **ADVANCED GENERAL METALS** 3 credits. A continuation of Ind. Arts 223.
331. **ADVANCED WOODS** 3 credits. Prerequisite: Industrial Arts 231. An advanced course to develop further skills and knowledge in the broad area of woodworking.
332. **FURNITURE CONSTRUCTION** 3 credits. A course in the design and construction of furniture.
333. **PLASTIC** 3 credits. The use of plastic materials in the manufacture of a variety of objects.

340. **GENERAL GRAPHIC ARTS** 5 credits. Introduction to relief printing (typography, press work, wood cuts, linoleum cuts, relief line etchings, stereotype plates, electrotypes, wood engravings, and rubber stamp making); intaglio printing (etchings and gravure); planography (offset lithography—direct and photo) screen process printing, and bindery practices.
341. **ADVANCED GENERAL GRAPHIC ARTS** 3 credits. Continuation of Industrial Arts 340.
342. **PRODUCTION PRINTING** 3 credits. Prerequisites: Industrial Arts 340, 341, and 343 or permission of the instructor. Practical experience in job printing, estimating printing costs, and ordering supplies and equipment is provided.
343. **OFFSET LITHOGRAPHY** 5 credits. Prerequisite: Ind. Arts 340 or permission of the instructor. Survey of offset lithography with laboratory experience in process photography, plate making, cold type composition, and press work.
350. **INDUSTRIAL ARTS FOR ELEMENTARY SCHOOLS** 3 credits. Experience in working with the materials and processes basic to home and industry, and how to plan and execute these activities in teaching elementary school children.
351. **INDUSTRIAL ARTS FOR THE ELEMENTARY SCHOOL** 5 credits. Experience in planning and organizing activities based on contemporary industrial technology, with emphasis on processes and materials.
352. **SPECIAL INDUSTRIAL ARTS FOR ELEMENTARY SCHOOLS** 3 credits. Open only to experienced teachers who have had work in industrial arts and who wish to gain additional experience with materials and processes suitable for the elementary school.
360. **PHOTOGRAPHY** 3 credits. Extensive laboratory experience. The course deals with such matters as operation of cameras; development of negatives, prints, and enlargements; special toning, intensification, and reduction of negatives. The techniques of taking pictures with good composition is emphasized.
372. **INDUSTRIAL ELECTRONICS** 4 credits. Industrial uses of electronics, including a study of electron tubes, control devices, relays, and closed loop systems.
375. **MOTORS AND GENERATORS** 3 credits. Theory and practical uses of motors and generators. Special attention is given to maintenance and repair.
381. **ADVANCED POWER MECHANICS** 5 credits. Service, repair, and maintenance of power machines with the primary emphasis on understanding the basic principles of operation.
382. **AUTOMOTIVE ELECTRICITY** 2 credits. Repair and maintenance of the electrical components of the automobile and other small gasoline engines. Emphasis is on the understanding of basic principles of operation.
384. **MECHANICS OF MATERIALS** 3 credits. Study and experimentation in stress, strain, torsion, shear-bending, pure bending, plane stress, and design of members.
391. **DRIVER EDUCATION FOR INSTRUCTORS** 3 credits. Conducting driver education classes in the public schools. In addition to practice teaching utilizing a dual control automobile, the course involves lectures and demonstrations. Students completing the course satisfactorily receive a certificate of proficiency from the American Automobile Association.
400. **SPECIAL PROBLEMS** 1-5 credits. Prerequisite: consent of the instructor. (Open only to industrial arts majors.) Specialized advanced study through individual instruction. (See Industrial Arts 300.)
403. **UPHOLSTERY AND SURFACE FINISHES** 3 credits. Problems in finishing and upholstery. Practice is provided in planning and applying finishes to wood, metals, and other materials.

404. **TOOL AND MACHINE MAINTENANCE** 3 credits. Prerequisites: Industrial Arts 223 and 231 or equivalent. Service, repair, and operation of shop tools, materials, and machines. Procurement and instructional use are also considered.
406. **PRINCIPLES OF TEACHING OCCUPATIONAL ANALYSIS** 3 credits. Analysis, selection and organization of occupational content for instruction in Industrial Education classes.
408. **GRAPHIC DESIGN** 6 credits. Prerequisites: Art 260 and 270 for Art students; I.A. students. Principles of layout, design, and printing in relation to their commercial applications. Also offered as Art 408.
411. **PRACTICAL LETTERING TECHNIQUES** 3 credits. Development of skill in hand lettering. The course is of special value to the teacher concerned with developing effective displays involving the use of commercial lettering methods.
419. **ADVANCED UNITS IN DRAFTING** 1 to 3 credits. Prerequisite: Industrial Arts 110 or 210. Sheetmetal drafting, descriptive geometry, architectural drawing, furniture design, machine and other drafting units.
429. **ADVANCED UNITS IN METAL** 1 to 3 credits. A selection from sheet metal, machine metal, welding, forging, art metal, patternmaking, and foundry units.
439. **ADVANCED UNITS IN WOOD** 1 to 3 credits. A selection from wood turning, furniture construction, small boat building, tool and equipment maintenance, and other units.
447. **PUBLICATIONS PRODUCTION** 5 credits. Prerequisite: Industrial Arts 340 or permission of instructor. Experiences in design and layout, composition, general and process photography, and presswork in the production of publications.
449. **ADVANCED UNITS IN GRAPHIC ARTS** 1-3 credits. Prerequisite: Industrial Arts 340 or permission of the instructor. Advanced offset lithography, advanced lithography, advanced typography, advanced press work, dry offset, graphic arts crafts, screen printing, bookbinding, and other units.
459. **ADVANCED UNITS IN INDUSTRIAL ARTS FOR THE ELEMENTARY SCHOOL** 1 to 3 credits. Developing industrial arts units according to individual needs and interests of students. Special emphasis is given to the relationship between industrial arts and the social studies, language, literature, and other activities of the elementary grades. Laboratory work is planned to give the student experience with new materials and new techniques.
461. **ADVANCED PHOTOGRAPHY** 3 credits. Prerequisite: Ind. Arts 360 or equivalent. Selected problems in advanced photographic techniques.
- *469. **ADVANCED UNITS IN PHOTOGRAPHY** 1 to 3 credits. Prerequisite: Industrial Arts 360. A selection from photographic re-touching, manual coloring of photographs, graphic arts photography, the production and use of visual teaching materials, and other units.
477. **THEORY AND OPERATION OF ELECTRONIC TEST EQUIPMENT** 4 credits. Theory and practice in the operation of electronic test equipment common to industrial arts electronic programs. Special attention is given to the use of test equipment as it applies to industrial technology projects and experiments.
478. **PRACTICAL RADIO AND TELEVISION** 4 credits. Theory of radio and television transmitters and receivers. Special attention is given to repair and maintenance concerned with radio, television, and related test equipment.
479. **ADVANCED UNITS IN ELECTRICITY** 1-3 credits. Advanced study of problems in electricity, involving motors, generators, and electronics.

*These courses may be repeated as often as needed to develop special areas. Each student is required to make a written report of special visual aids for the Industrial Arts Department.

- *489. **ADVANCED UNITS IN POWER MECHANICS** 1-3 credits. Planning completion and reporting of problems in power mechanics.
491. **SELECTION AND ORGANIZATION OF SUBJECT MATTER IN INDUSTRIAL ARTS** 3 credits. Curriculum for teachers of industrial education, to give a knowledge of problems, techniques, and procedures in the selection and organization of subject matter for instruction.
492. **CONSTRUCTION AND USE OF VISUAL AIDS** 3 credits. Photo techniques, scale models, charts and graphs; construction of visual aids materials; the use and maintenance of slide and motion picture projectors; making of slides, film strips, and 8 mm. or 16 mm. motion pictures for classroom use.
493. **THE TEACHING OF INDUSTRIAL ARTS** 3 credits. Principles and procedures of organizing students, laboratories and instructional materials in teaching industrial type classes.
494. **INDUSTRIAL TOURS** 1-5 credits. Visitation to selected plants in the Pacific Northwest to acquire first-hand understanding of all regional industry. There is opportunity for thorough analysis of processes, product, design, and materials. Distribution also is studied. Approximately one-half of the course time is spent with the industrial concerns, the balance on campus in organizing materials for teaching. Personnel from industry participate in the planning and operation of this experience. Summer only.
495. **PROJECT SELECTION AND DESIGN** 5 credits. This course is designed to aid the student in developing a critical attitude in project design and selection. Part of the course is devoted to the reproduction of the various designs.
496. **ORGANIZATION AND ADMINISTRATION OF INDUSTRIAL EDUCATION** 3 credits. Problems and procedures in organizing and administering industrial education programs; the interrelationships, on all levels of operation, of industrial arts, industrial-vocational education, adult education, technical education, and apprentice training. This course is for teachers, supervisors, and school administrators.
498. **SEMINAR IN INDUSTRIAL ARTS DESIGN** 3-5 credits. Developing an analytical attitude in industrial arts design and project selection. Group sessions are devoted to a discussion of the principles of design, with participation by the entire staff of the department. Students then disperse to the various industrial arts laboratories to execute designs as applied to several materials, working with a number of instructors.
499. **EQUIPMENT CONSTRUCTION** 3-5 credits. To be taken only concurrently with Science Education 431. Care, adjustment, and design of apparatus which illustrates basic concepts in physics. Instruction is given in the use of tools and machines needed for working the materials used in the construction of apparatus.
590. **CURRICULUM PROBLEMS OF INDUSTRIAL EDUCATION** 3 credits. For classroom teachers, supervisors, principals, and superintendents. Curricular problems involved in teaching industrial education courses in the elementary and secondary schools.
591. **INDUSTRIAL TECHNOLOGY** 3 credits. The development of trade, technical, and industrial technology. Consideration is given to motivating forces, philosophical concepts, issues, and trends.
592. **SUPERVISION AND ADMINISTRATION IN INDUSTRIAL TECHNOLOGY** 3 credits. The organization of men and equipment for work, and related problems.
593. **READING AND CONFERENCE IN INDUSTRIAL ARTS** 1-5 credits. Prerequisite: permission of the instructor and approval of the department chairman. This advanced study is arranged to include instruction, conferences, guided reading and research.

*These courses may be repeated as often as needed to develop special areas. Each student is required to make a written report of special visual aids for the Industrial Arts Department.

594. **SEMINAR IN INDUSTRIAL ARTS** Credit variable. Study of special problems using recognized techniques of research.
599. **PROBLEMS IN INDUSTRIAL ARTS** 3 credits. Prerequisite: permission of the instructor. Organization of suitable shop equipment and teaching materials. The course provides experiences in study, selection, and development of projects in the various areas of industrial arts. Teaching experience under supervision may be included. Each student selects and studies a pertinent problem for which research is needed, and submits a paper on his findings.

INTERDEPARTMENTAL CONCENTRATION in

LANGUAGE ARTS

Concentration

(for the Junior High School Teacher)

Major:

For advisement or approval, students should consult the instructor of English 426. See Schedule of Classes.

The departments represented have jointly planned this major for the purpose of developing the language arts competence required of junior high school language arts—social studies core teachers. The major consists of courses in the various fields which comprise the language arts. The total of 45 credits should be selected as follows:

- a. Speech 105 (required only of students deficient in speech), 200, 233, 355, and 430. Recommended elective: Speech 230.
- b. Library 308.
- c. English 485c, 429, and on upper division course in writing.
Two of the following: English 380, 381, 382.
One of the following: English 301, 302, 303.
- d. Additional courses under advisement in the fields of speech, library, and English to total forty-five credits.

DEPARTMENT of LIBRARY SCIENCE

Faculty

Associate Professors: Heorsey, Herrick (Chairman), Mathes,

Assistant Professor: Penland, Scott.

Instructor: Honna.

Teacher Education

Courses numbered 305 through 405 comprise the program for teacher librarians and is designed to prepare librarians for the smaller elementary and secondary schools of the state. The Superintendent of Public Instruction recommends that librarians in elementary, junior and senior high schools with an enrollment of less than 400 have at least 18 quarter hours of specialized professional preparation. For those serving larger schools a degree from an approved library school is required.

Superior scholarship, demonstrated leadership and ability to work with children as evidenced through successful teaching, student teaching, or equivalent experience with children are expected of those who enroll for this program. Library 125 should be taken as a prerequisite for this program and courses in audio-visual materials, curriculum planning, the teaching of reading, child and adolescent psychology offered by other departments are recommended.

Concentrations

FIELD MINOR A (for elementary schools):

Library Science 305, 401, 402, 403, 404. Additional electives suggested: Library Science 306, 307, 400, 405.

FIELD MINOR B (for secondary schools):

Library Science 307, 401, 402, 403, 404. Additional electives suggested: Library Science 305, 306, 400.

Courses

125. **LIBRARY RESEARCH** 2 credits. Techniques in the use of a college library for term paper research. The course provides lectures and practice exercises on such categories of library use as locations, regulations, classification and organization of the book collections, use of the card catalogue, use of periodical indexes, etc. The preponderance of the course time is devoted to learning the use of standard reference tools.

305. **BOOKS FOR ELEMENTARY SCHOOLS** 3 credits. Examination, reading, and discussion of the books found to be most generally useful in work with boys and girls in age groups at the elementary level. Books in the fields of information (science, biography, social science, reference, magazines, etc.) are considered as well as imaginative literature (folklore, poetry, and fiction). Special emphasis is given standards for the selection of books, book lists, reviews of current books, modern trends in book production, and the relation of books to the curriculum and to the reading interests of children.
306. **INTRODUCTION OF BOOKS TO CHILDREN** 3 credits. Prerequisite: Library 305. Opportunity for students to read more intensively and to discuss in greater detail books appropriate for primary, intermediate, and junior high school boys and girls. Emphasis is on the preparation of bibliographies, on reading problems of individual children, and on methods of arousing interests in books in general. Especially recommended for those who have had a course in children's literature elsewhere, or at the College more than ten years ago.
307. **BOOKS FOR JUNIOR HIGH SCHOOLS** 3 credits. Examination, reading and discussion of the books found to be most generally useful in work with boys and girls in the junior high school. Books in the fields of information (science, biography, social science, reference, magazines, etc.) are considered as well as imaginative literature (folklore, poetry, and fiction). Special emphasis is given standards for the selection of books, book lists, reviews of current books, modern trends in book production, and the relation of books to the curriculum and to the reading interests of children.
308. **BOOKS FOR HIGH SCHOOLS** 3 credits. A course paralleling Library 305.
- 307) Examination, reading, and discussion of books most suitable for use with boys and girls in the secondary schools. Emphasis is on development of appreciation and methods of arousing interest in reading, with material drawn from both the juvenile and adult levels. As in Library 305, attention is given to the standards for selection of books, book lists, reviews, and particularly to the relation of books to the curriculum.
400. **INDIVIDUAL PROBLEMS IN SCHOOL LIBRARY WORK** 1-3 credits. For librarians, teachers, curriculum and audio-visual specialists, and school administrators. Lectures, group discussions and individual conferences deal with problems in selection of materials, organizing, administering and making maximum use of both the elementary and secondary school library. Summer only.
401. **THE LIBRARY IN THE SCHOOL** 3 credits. Prerequisite: Library 305. Emphasis on the importance of the library in the modern elementary and secondary school with some attention to the organization and maintenance of effective library service.
402. **ORGANIZATION OF MATERIALS** 3 credits. Prerequisites: Library 305. Principles of classification and cataloguing, with much practice in handling the types of books and materials found in school libraries. Training is given in making unit cards, adapting printed ones, and in organizing a shelf list and dictionary catalogue.
403. **CURRICULUM ENRICHMENT MATERIALS** 2 credits. Prerequisite: Library 305. Exploration of all the resources of a school library with emphasis on the instructional aids other than books. Units of study are selected and bibliographies of varied materials prepared for use in the classrooms of the elementary and secondary schools. Opportunity for the evaluation of reference books is also afforded.
404. **HISTORY OF BOOKS AND LIBRARIES** 3 credits. Development of the book in its various forms from the earliest times, and a survey of the world's great libraries, past and present.
405. **BASIC INFORMATION SOURCES** 2 credits. Prerequisite: Library 307. Study and evaluation of the basic reference and bibliographic sources in the various subject fields which are most useful in the secondary school.

DEPARTMENT of MATHEMATICS**Faculty**

Associate Professors: Gelder (Chairman), Hildebrand, Rio.

Assistant Professors: Lister, McFarland, Sanders, Witter.

Instructors: Billings,

Teacher Education**Concentrations****FIELD MAJOR:**

Mathematics 101*, 102*, 103, 201, 202; select two courses from Mathematics 203, 241, or 270; from 12-15 credits upper division courses, as advised.

Mathematics 483 shall be substituted for the mathematics requirement in the general education program.

FIELD MINOR:

Mathematics 101*, 102*, 103, and 10 credits from Mathematics 201, 241, 270, 301, 305, 310, or 311.

Mathematics 481 or 483 shall be substituted for the mathematics requirement in the general education program.

*See statement below on advanced placement opportunity.

Arts and Sciences**Concentrations****MAJOR:**

Mathematics 101*, 102*, 103, 201, 202, 203, and 40 credits to be selected as advised by a member of the department.

Recommended Supporting Courses: Physics 231, 232, 233.

MINOR:

Mathematics 101*, 102*, 103, and 10 credits from Mathematics 201, 202, 241, 271, and upper division courses as advised by a member of the department.

*See statement below on advanced placement opportunity.

Advanced Placement

Entering students having completed a four year or accelerated secondary school program with superior success are encouraged to apply to the Chairman of the Department of Mathematics for advanced placement if they intend to complete a major or a minor in the field.

Courses

3. **BASIC MATHEMATICS** No credits. Review of the mathematics—concepts and techniques—necessary to general college study.
100. **INTERMEDIATE ALGEBRA** 3 credits. For students who do not have sufficient preparation for Mathematics 101. Fundamental operations, factoring, exponents and radicals, linear and quadratic functions, graphs, and linear systems of equations.
101. **PRINCIPLES OF ALGEBRA** ^{coll. alg.} 5 credits. Prerequisite: Mathematics 100 or one and one-half years of high school algebra. Logic, number systems, sets, groups, fields, equations and inequalities, partial fractions, and determinants.
102. **ELEMENTARY FUNCTIONS** 5 credits. Prerequisite: Mathematics 101. A study of polynomial, algebraic, trigonometric, logarithmic, and exponential functions and their graphs; selected topics from the theory of equations.
103. **ANALYTIC GEOMETRY AND CALCULUS** 5 credits. Prerequisite: Mathematics 102 or advanced placement. Coordinate geometry of the plane. Limits, the derivative, differentiation, the differential, and elementary applications of differential calculus. Introduction to integration.
111. **ENGINEERING PROBLEMS** 3 credits. Prerequisite: Mathematics 102, taken previously or concurrently, or advanced placement. A first course in methods of analyzing and solving engineering problems in the field of elementary dynamics. The systematic and clear presentation of problems is given special emphasis. This course constitutes a general orientation to engineering and engineering reports.
112. **ENGINEERING PROBLEMS** 3 credits. Prerequisite: Mathematics 111. Fundamental principles of statics, mathematical and graphical analysis of simple force systems, stresses, trusses, and simple mechanics.
151. **FOUNDATIONS OF MATHEMATICS** 3 credits. Prerequisite: Clearance on the mathematics placement test. A general education course. Introduction to mathematics as a study of axiom systems. Such topics as logic, sets, and the real number system are discussed as examples of axiom systems. This course is not open to those who have credit in Mathematics 101.
200. **MATHEMATICS SEMINAR** 1 to 3 credits. Prerequisite: Mathematics 103. An opportunity to present and discuss topics which are extensions of the content of the lower division courses in mathematics.
- 201, 202, 203. **ANALYTIC GEOMETRY AND CALCULUS** 5 credits each. Prerequisite: Mathematics 103. Elementary treatment of the coordinate geometry of the plane and solid spaces, and the calculus. In Mathematics 201 the study of the integral and integration is continued, the differentiation of transcendental functions is introduced, and parametric equations are studied. In the latter two courses, methods of integration, improper integrals, indeterminate forms, infinite series, series expansion of functions, partial differentiation, and multiple integration are discussed.

241. **PROBABILITY AND GAMES** 3 credits. Prerequisite: one and one-half years of high school algebra or Mathematics 100. An elementary and intuitive development of the formal theory of probability. The many applications of probability in games, and in the biological and behavioral sciences, are given introductory treatment.
251. **FOUNDATIONS OF MATHEMATICS** 4 credits. Prerequisite: Mathematics 151 or 101. Introduction to arithmetic, algebra, geometry, probability, and statistics.
270. **DIGITAL COMPUTER PROGRAMMING** 2 credits. Prerequisite: Mathematics 101 or permission. An introduction to binary arithmetic, basic machine design, machine language, compiler language, and elementary numerical methods. Upon the availability of a digital computer, this course will involve problem assignments to be executed on the computer.
301. **MATRICES AND DETERMINANTS** 5 credits. Prerequisite: Mathematics 103. Properties of matrices and determinants implied by definitions; fundamental operations, applications to algebra and geometry; transformations, canonical forms, and invariants.
302. **LINEAR ALGEBRA** 3 credits. Prerequisite: Mathematics 301. Properties of number systems, groups, rings, fields; equivalence, congruence, and isomorphism relationships; extension fields, linear spaces, linear transformations and their invariants.
305. **NUMBER THEORY** 3 credits. Prerequisite: Mathematics 103 or permission. The properties of integers, Euclid's algorithm, Diophantine equations, congruences, continued fractions, and residues.
310. **HIGHER ANALYTIC GEOMETRY** 3 credits. Prerequisite: Mathematics 103. Development of the analytic geometry of two and three dimensions. Curves, surfaces, coordinate transformations, point transformations, invariants, and canonical forms.
311. **FOUNDATIONS OF GEOMETRY** 3 credits. Prerequisite: Mathematics 103. Projective geometry: the postulates of incidence, models, duality, perspectivities, projectivities, figures, quadrangular and harmonic sets, coordinate systems, transformations, lines, and conics.
312. **FOUNDATIONS OF GEOMETRY** 3 credits. Prerequisite: Mathematics 103. Analytic projective geometry; a study of matrices, cross-ratio, groups, projective transformations, polarities, and conics; affine geometry, euclidean and non-euclidean geometries.
321. **FUNDAMENTALS OF ANALYSIS** 5 credits. Prerequisite: Permission of the Summer Institute Director. A development of the calculus including the theory of limits of sequences and functions, differentiation and integration, together with supporting topics from analytic geometry and algebra. Offered in the Summer Institute Program only.
322. **INTERMEDIATE ANALYSIS** 3 credits. Prerequisite: Mathematics 201. Properties of real numbers with emphasis on order and completeness. A study of the theory of limits is included.
325. **ADVANCED CALCULUS** 3 credits. Prerequisite: Mathematics 203. The topology of the real line, theory of differentiation, the Riemann integral, improper integrals, Riemann-Stieltjes integral, bounded variation.
331. **ORDINARY DIFFERENTIAL EQUATIONS** 5 credits. Prerequisite: Mathematics 203. N -th order linear equations, operators, the Laplace transform; solution by series and successive approximation; numerical solutions; systems of equations.
- 341, 342. **MATHEMATICAL STATISTICS** 5 and 3 credits, respectively. Prerequisite: Mathematics 203. Mathematical development of normal, binomial, and Poisson distributions; averages, moments, and measures of dispersion; linear regression, correlation, analysis of variance; confidence intervals, sequential analysis, and statistical inference.

361. **VECTOR ANALYSIS** 5 credits. Prerequisite: Mathematics 203. The algebra of vectors, vector spaces, vector calculus; line integrals, divergence and curl, Stokes Theorem; the application of vectors to the study of work, potential theory, and fluid flow.
370. **NUMERICAL ANALYSIS** 3 credits. Prerequisites: Mathematics 203 and 270, or permission. A general introduction to numerical methods involving the study of interpolation with divided differences, Lagrangian methods, finite-difference methods, least-square approximation, and Gaussian quadrature. Upon availability of a digital computer, this course will involve problem assignments to be executed on the computer.
400. **MATHEMATICS SEMINAR** 1 to 3 credits. Prerequisite: Mathematics 203. An opportunity to present and discuss topics which are extensions of the content of the undergraduate program in mathematics.
- 425 (411), 426 (412). **ADVANCED CALCULUS** 3 credits each. Prerequisite: Mathematics 325. The topology of euclidean n -space, a study of limits, differentiation of functions of several variables, the general Riemann integral, Riemann-Stieltjes integral, line integrals, Jordan content.
- 431, 432. **FUNCTION THEORY OF THE COMPLEX VARIABLE** 3 credits each. Prerequisite: Mathematics 325. 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.
451. **MATHEMATICAL LOGIC AND SETS** 5 credits. Prerequisite: Permission of the instructor. Introduction to formal symbolic logic and to set theory with an emphasis on mathematical examples.
452. **ALGEBRA** 5 credits. Prerequisite: Permission of the instructor. Introduction to linear algebra, matrices and determinants, linear transformations, and canonical forms.
453. **GEOMETRY** 5 credits. Prerequisite: Permission of the instructor. Foundations of euclidean geometry; Euclid's postulates, Hilbert's postulates, the parallel postulate; non-euclidean geometries.
454. **ANALYSIS** 5 credits. Prerequisite: Permission of the instructor. Convergence of sequences and series, continuity of functions, and the theory of differentiation and integration.
470. **NUMERICAL METHODS IN DIFFERENTIAL EQUATIONS** 3 credits. Prerequisites: Mathematics 270 and 331. Forward integration, error analysis; Milne, Runge-Kutta, and difference methods; systems of equations. Upon the availability of a digital computer, this course will involve problems to be executed on the computer.
481. **MATHEMATICS IN GRADES 1 THROUGH 8** 4 credits. Prerequisite: Mathematics 251 or permission. An analysis of the teaching of the mathematics of grades one through eight in terms of objectives and methods of presentation. Methods of stimulating creative expression and of promoting student understanding, the various teaching aids, and the subtleties of the mathematics itself receive consideration. An examination and evaluation of current research relative to the pre-high school mathematics program is included.
483. **MATHEMATICS IN THE SECONDARY SCHOOL** 3 credits. Prerequisite: Mathematics 103 or permission. Mathematics content of the advanced courses offered at the high school level from the point of view of the teacher. A discussion of the major experimental programs is given.

- 490, 491. SEMINAR ON EXPERIMENTAL PROGRAMS IN MATHEMATICS** 6 credits each. Prerequisite: Permission of the instructor. These seminars are specifically designed to prepare teachers in the content and methods of the new programs in secondary mathematics. Mathematics 490 is devoted to the study of the teaching of Units 1-4 of the program of the University of Illinois Committee on School Mathematics (UICSM) and to an overview of the content of the School Mathematics Study Group (MSG) materials for grades 7-9. Provision is made for the observation of a demonstration class of children using the UICSM materials. Mathematics 491 is a continuation of this study, with emphasis on the content of the materials for grades 10-12 of the UICSM and the MSG programs. Summer only.
- 500. MATHEMATICS CURRICULUM SEMINAR** 1 credit. Prerequisite: admission to the Master-teacher program. The mathematics curriculum in the public schools. Present content of this curriculum is considered and a study is made of new recommendations for revision.
- 501. NUMBER SYSTEMS** 5 credits. Prerequisite: permission of the instructor. Postulational development of the real and complex number systems and an introduction to the theory of groups, fields, and rings.
- 502. THEORY OF NUMBERS** 5 credits. Prerequisite: permission of the instructor. The properties of the natural numbers, divisibility, the euclidean algorithm, congruences, primitive roots, quadratic residues, and diophantine equations.
- 503. PROBABILITY AND STATISTICS** 5 credits. Prerequisite: permission of the instructor. Probability; combinatorial analysis, conditional probability; independence; distribution functions, random variables, and expectation.

DEPARTMENT of MUSIC

Faculty

Professor: D'Andrea, (Chairman).

Associate Professors: Regier, Schaub, Walter.

Assistant Professors: Glass, Reubart,

Instructor: Hinds.

Guest Lecturer: Morse.

Functions of the Department

The Music Department performs two functions in the College. First, it provides specialized education for those students who wish to major or minor in music or music education. Second, it enhances the cultural, recreational, and social life of the student through concerts, recitals, and other performances and music activities.

For the Music Student

Admission to Music Programs

Students who wish to major or minor in music are required to have a preliminary conference with a member of the music staff. Classification as a music major or minor requires departmental approval. Final approval as a music major will be made after a year of successful study.

All entering music majors are required to take the music preparedness test during the first week of classes to determine the appropriate courses for which they should be enrolled in the sequence of courses in music structure and musicianship.

Requirements in Piano

All students with a Music-Education Major or Minor must pass a piano functional examination which is given at the conclusion of Music 110, **Elementary Class Piano Instruction**. This examination may be taken at any time prior to student-teaching.

Piano final examinations are required of all students enrolled for applied piano instruction who have not appeared in one or more of the student recitals given during the quarter. Participation will be considered sufficient if performance is as soloist, or as member of a chamber music group or piano ensemble.

Music Scholarships

Scholarships are available for individual instruction in voice, piano, and organ, as well as in band and orchestral instrument. See page 66.

Provision for the Use of Special Facilities and Equipment

There are special fees levied for practice rooms, instrument rental, and organ practice. Fees must be paid in the Business Office before arrangements for use of music facilities are made in the Music Library. See page 62.

Music Organizations

All music majors participate in both choral and instrumental organizations. Participation in music organizations is required throughout the four College years. This experience is considered an integral and important part of the student's professional training in music.

Recitals and Concerts

Hearing and evaluating performances are a vital part of a student's musical growth. Numerous recitals are given by students and faculty; concerts, by the Music Department and visiting artists. All music students are required to attend the college recitals and concerts. They are also expected to perform as soloists or in small ensembles.

Pipe Organs

The College owns three organs: the Memorial three-manual Moeller organ in the Auditorium, a Moeller practice organ, and a Conn electronic organ. Concerts are frequently given by visiting organists, faculty, and advanced organ students.

Arts and Sciences

Concentrations

MAJOR: Music 131, 132, 133, 231, 232, 233, 331, 332, 240, 241, 242, 306, 307, 308.

Major instrument: minimum of 12 credits.

Piano or secondary instrument: minimum of six credits.

Voice: minimum of one credit.

Music organizations: choral and instrumental.

MINOR: Music 131, 240, 241, 242, 306.

Major instrument or voice: minimum of six credits.

Music organizations.

Teacher Education

Concentrations

MAJOR (Preparation for teaching vocal and/or instrumental music at all levels; 67 credits):

Structure and Musicianship: Music 131, 132, 133, 231, 233, 331, 332.

History: Music 240, 241, 242.

Music Education: Music 251, 462, 464.

In addition, Vocal-choral take Music 463 and 2 credits of applied voice; Instrumental take Music 301, 302, 303, 304.

Performance: Music 101, 102, 103 or individual piano instruction; 105, 306, 307, 308.

Major instrument or voice minimum of nine quarters; Choral and instrumental organizations.

MAJOR IN ELEMENTARY MUSIC EDUCATION (Preparation for teaching elementary vocal music, grades 1-6; 45 credits):

Structure and Musicianship: Music 131, 132, 133, 231, 232, 233.

History: Music 240, 241, 242.

Music Education: Music 251.

Performance: Music 306, piano 6 quarters, voice 2 quarters, choral organizations 3 quarters.

MINOR A (Strings, 22 credits):

Music 131, 132, 133, 301, 306, 462.

Applied Strings: 3 credits.

Piano: 3 credits.

Orchestra.

MINOR B (General, 22 credits):

Music 131, 132, 133, 240, 241, 242.

Major instrument or voice: 4 credits.

Music organizations.

Courses

Structure and Musicianship

130. **MUSIC FUNDAMENTALS** 3 credits. Music notation; basic terminology; scales; key signatures and intervals. Emphasis is centered upon musical experience through singing and aural perception. For students desiring a foundation in music but whose musical background is not sufficient to assure success in Music 131.
131. **HARMONIC PRACTICE** 3 credits. Admission by qualifying examination or completion of Music 130. Music notation; scales; key signatures; intervallic two-part counterpoint; analysis; coordinated singing, listening and keyboard experiences with emphasis upon functional application.

132. **HARMONIC PRACTICE** 3 credits. Admission by qualifying examination or completion of Music 131. Diatonic harmony in root position; phrase structure and chord grouping; analysis; coordinated laboratory experiences and creative activity.
133. **HARMONIC PRACTICE** 3 credits. Admission by qualifying examination or completion of Music 132. Triad inversion; figured bass; analysis; intervalllic counterpoint in three voices; coordinated laboratory experiences and creative activity.
231. **HARMONIC PRACTICE** 3 credits. Admission by qualifying examination or completion of Music 133. Seventh chords; irregular resolution; sequence; introduction to accented dissonances; analysis; coordinated laboratory experiences and creative activity.
232. **HARMONIC PRACTICE** 3 credits. Admission by qualifying examination or completion of Music 231. Modulation; secondary dominants; introduction to chromatic harmony; the period form; analysis; coordinated laboratory experiences and creative activity.
233. **HARMONIC PRACTICE** 3 credits. Admission by qualifying examination or completion of Music 232. Chromatic harmony; modulation; relationship of harmony to larger formal units; analysis; coordinated laboratory experiences and creative activity.
331. **HARMONIC AND CONTRAPUNTAL PRACTICE** 2 credits. Contrapuntal practice of the 17th through the 19th centuries; harmonic practice of the late 19th century and developments in the 20th century.
332. **HARMONIC AND CONTRAPUNTAL PRACTICE** 2 credits. Continuation of Music 331.
333. **HARMONY LABORATORY** 3 credits. A review and application of harmonic practice to aural, vocal, keyboard and creative experience, with attention given to harmonic and formal analysis. Prerequisite: one year of college level harmony or its equivalent. Summer only.
431. **ORCHESTRATION** 3 credits. Orchestration, with special reference to the needs of the instrumental director.
432. **ORCHESTRATION** 3 credits. A continuation of Music 431.
433. **ORCHESTRATION** 3 credits. A continuation of Music 432.
434. **PHYSICS OF MUSICAL INSTRUMENTS** 3 credits. The production and transmission of musical tone and the acoustical problems of musical performance. Emphasis is upon the physical and psychological properties of vocal, string, and wind instrument tone.
531. **ARRANGING FOR SCHOOL INSTRUMENTAL GROUPS** 3 credits. Practical techniques in arranging and composing for large and small ensembles. For the school instrumental director. Summer only.
532. **ARRANGING FOR SCHOOL CHORAL GROUPS** 3 credits. Practical techniques in arranging and composing for large and small ensembles. For the school choral director. Summer only.

History and Appreciation

140. **THE ART OF LISTENING TO MUSIC** 3 credits. A non-technical course to provide a basis for enjoyable listening to music through the discovery of stylistic differences among composers and the awareness of performance practices related to symphony orchestras, instrumental ensembles, opera, choral groups, and solo performance.
240. **MUSIC HISTORY AND LITERATURE** 3 credits. Musical styles and literature in music's development from ancient times. The development of intelligent listening and criticism is stressed.

241. **MUSIC HISTORY AND LITERATURE** 3 credits. Continuation of Music 240.
242. **MUSIC HISTORY AND LITERATURE** 3 credits. Continuation of Music 241.
440. **HISTORY OF OPERA** 3 credits. A survey of operatic development from its origins to the present with detailed study of selected representative operas. Instruction is by lectures, recordings and score analysis.
441. **HISTORY OF PIANO LITERATURE** 3 credits. Music for the piano from the 18th century to the present day. Attention is directed toward the concurrent development of the piano as a musical instrument.
445. **MUSIC IN THE HUMANITIES** 3 credits. A broad study of music and allied arts which shows their interrelationship and their place in historical and cultural setting. The major art periods with their stylistic characteristics and developments are reviewed. Great masters and works are discussed and illustrated.

Music Education

250. **MUSIC FOR ELEMENTARY TEACHERS** 2 credits. The skills of singing, reading, (150) writing, playing and hearing music. This course, followed by Music 251, prepares the elementary teacher to handle her own music.
251. **TEACHING ELEMENTARY SCHOOL MUSIC.** 3 credits. Prerequisite for non-music (250) majors or minors: Music 250. Teaching techniques, materials, and organization of the elementary music program taught through the experiences and literature of the elementary grades.
350. **MUSIC IN RECREATION** 3 credits. Pleasurable music-making for the layman. (320) Included is a study of (a) music's role in bringing more enjoyment, participation and sociability to recreation; (b) useful, simple vocal and instrumental skills; (c) appropriate literature and activities for numerous types of recreational opportunities in the school and community.
450. **MUSIC EXPERIENCES FOR CHILDREN** 3 credits. Music workshop for classroom teachers and administrators. Included is a study of musical techniques as applied to the teaching of children. Appropriate activities and materials which can be used by the general teacher to carry on an effective music program are reviewed. The course involves observation of elementary music classes.
451. **MUSIC LISTENING ACTIVITIES IN THE ELEMENTARY SCHOOL** 3 credits. Workshop for elementary teachers and music supervisors. Included are (a) a study of literature, activities, and teaching techniques; (b) correlation with other classroom studies; (c) out-of-classroom activities and programs.
452. **MUSIC LITERATURE FOR ELEMENTARY SCHOOLS** 3 credits. Appropriate literature to be used in the elementary school music activities of singing, rhythms, outside reading, programs.
454. **STRING TECHNIQUES AND MATERIALS** 3 credits. (404)
455. **BRASS TECHNIQUES AND MATERIALS** 3 credits. (405)
456. **WOODWIND TECHNIQUES AND MATERIALS** 3 credits. (406)
457. **PERCUSSION TECHNIQUES AND MATERIALS** 3 credits. (407)

Music 454, 455, 456, and 457 constitute a series of laboratory courses designed to give the teacher an effective method of dealing with the numerous problems encountered in teaching band and orchestral instruments. Special concern is given to the means of using these instruments most effectively in both small and large groups.

458. **PIANO FOR THE CLASSROOM TEACHER** 3 credits. Piano course for the teacher with little or no previous piano background. Major emphasis: (a) the playing of materials used in teaching music; (b) the piano skills needed for simple accompaniment; (c) the use of the piano in general classroom activities. (408)
460. **MARCHING BAND TECHNIQUES** 3 credits. Marching band organization, parade marching, and show routine. Special emphasis is placed on rehearsal procedures and on the training of drum majors.
462. **INSTRUMENTAL METHODS AND MATERIALS** 3 credits. Problems, organization, techniques, and materials of an elementary and secondary program in instrumental music.
463. **THE GENERAL MUSIC PROGRAM IN THE JUNIOR AND SENIOR HIGH SCHOOL** 3 credits. Organization, content, literature and methods of teaching the general music class in the junior and senior high school. Attention is given to the development of a Music and Humanities course in the high school, to out-of-class activities and to audio-visual materials.
464. **CHORAL METHODS AND MATERIALS** 3 credits. Problems, organization, techniques, and materials of the secondary program in choral music.
465. **SCHOOL MUSICAL PRODUCTIONS** 3 credits. Workshop experience encompassing a wide range of new ideas, materials, and techniques for presenting all types of musical productions.
466. **ORCHESTRA MUSIC WORKSHOP** 2 credits. Summer only. (471)
467. **BIRCH BAY BAND MUSIC WORKSHOP** 2 credits. Summer only. (472)
468. **CHORAL MUSIC WORKSHOP** 2 credits. Summer only. (473)
550. **ADMINISTRATION OF SCHOOL MUSIC** 3 credits. Reappraisal of music's purpose and place in today's schools. Stress is placed on viewing the total music program as a unified and developmental part of the curriculum. Topics include current philosophic issues, new curricular developments, problems of supervision and instruction, development of community and professional relations. Summer only. (507)
551. **CHORAL TECHNIQUES** 3 credits. Methods, materials and devices used in the development of choral groups, varying from small vocal ensembles to large choral organizations. Summer only. (513)
552. **SUPERVISION OF ELEMENTARY SCHOOL MUSIC** 3 credits. Advanced work in methods, materials, organization, and supervision of the music program in the elementary school. Summer only. (501)
553. **PSYCHOLOGY OF MUSIC** 3 credits. Recent advances made in the psychological foundations of tonal organization, perception, and function which underlie music education's objectives and procedures. Summer only. (510)
554. **DIRECTED READINGS AND RESEARCH** 3 credits. Seminar discussion of areas of needed research in music education. Emphasis is placed upon reading and individual projects. Should be taken concurrently with Education 501. (503)

Performance

INDIVIDUAL INSTRUCTION

Training in applied music is available through class or individual instruction in piano, organ, voice, band and orchestral instruments. This work may be taken with the regular college music staff or with selected affiliated teachers. In the latter case the fee is paid in advance directly to the affiliated teacher. Registration for these lessons, however, must be made through the College if credit is to be earned. Students studying with members of the regular college music staff remit fees to the college Business Office. In both cases, the student must take ten one-half hour lessons per quarter to receive college credit. Class instruction in applied music carries no fee. Practice rooms may be rented for \$2.00 per quarter for one hour daily.

- 210. PIANO 1 credit.
- 211. ORGAN 1 credit.
- 213. STRINGS 1 credit.
- 214. BAND INSTRUMENTS 1 credit.
- 215. VOICE 1 credit.
- 510. ADVANCED PIANO 1 credit.
- 511. ADVANCED ORGAN 1 credit.
- 513. ADVANCED STRINGS 1 credit.
- 514. ADVANCED BAND INSTRUMENTS 1 credit.
- 515. ADVANCED VOICE 1 credit.

CLASS INSTRUCTION

- 101. (108) ELEMENTARY CLASS PIANO INSTRUCTION 1 credit. Piano technique, tone production, rhythm, sight-reading, interpretation, general musicianship, and keyboard facility, for those who have little or no previous piano experience. This class is particularly helpful for elementary teachers who would like to be able to play and use the piano as another resource in their class and school activities.
- 102. (109) ELEMENTARY CLASS PIANO INSTRUCTION 1 credit. Continuation of Music 101.
- 103. (110) ELEMENTARY CLASS PIANO INSTRUCTION 1 credit. Continuation of Music 102.
- 105. (111) ELEMENTARY CLASS VOICE INSTRUCTION 1 credit. Tone production, song repertoire and interpretation for those students who have had little or no previous vocal instruction. This class is particularly helpful for elementary teachers who would like to use singing as another resource in their class and school activities.
- 301. STRING CLASS INSTRUCTION 1 credit. Study of string instruments in rotation.
- 302. (304) BRASS CLASS INSTRUCTION 1 credit. Study of brass instruments in rotation.
- 303. (306) WOODWIND CLASS INSTRUCTION 1 credit. Study of woodwind instruments in rotation.

304. **PERCUSSION CLASS INSTRUCTION** 1 credit.
(308)
305. **INSTRUCTIONAL BAND** 1 credit. Application of techniques learned on secondary instruments. Review and evaluation of appropriate music for school orchestras and bands. Techniques and materials for marching band will be included in the Spring quarter.
306. **CONDUCTING** 3 credits. Laboratory course providing the necessary baton technique, interpretative analysis, and score reading ability needed for work with school instrumental and choral groups. Opportunity is given to conduct music groups.
(366)
307. **CONDUCTING** 3 credits. Continuation of Music 306.
(367)
308. **CONDUCTING** 3 credits. Continuation of Music 307.
501. **INSTRUMENTAL CONDUCTING AND REHEARSAL TECHNIQUES** 3 credits. Advanced work in conducting school band and orchestra music. Included are baton technique, interpretation, score preparation, and rehearsal techniques. Conducting experience with a laboratory group is provided. Summer only.
(519)
502. **CHORAL LITERATURE AND INTERPRETATION** 3 credits. Established and recent literature, interpretative analysis of scores, conducting and rehearsal technique, and laboratory rehearsal. For community and school choral directors. Summer only.
(517)

MUSIC ORGANIZATIONS

120. **CO-ED CHORUS** 1 credit. Women's Glee Club. Open to all.
(123)
121. **WESTERN STATESMEN** 1 credit. Men's Glee Club. Open to all.
(124)
123. **VARSITY BAND** 1 credit. Open to all students with previous band experience.
(175)
126. **INSTRUMENTAL ENSEMBLE** 1 credit. Participation in small string and wind ensembles. String trio, quartet, brass, and woodwind ensembles are available for student participation. These groups find ample opportunity for performance on and off the campus.
(176)
127. **VOCAL ENSEMBLE** 1 credit. Participation in small vocal ensembles, such as trios, quartets, and madrigal groups. There is ample opportunity for these groups to perform at college functions and in the community.
(177)
221. **CONCERT CHORALE** 1 credit. A selected group. Admission is based upon auditions in which the factors of voice, reading skill, musicianship, and interest are tested.
(271)
222. **SYMPHONY AND CHAMBER ORCHESTRA** 1 credit. Open to all students who can qualify. Prerequisite: permission of the instructor.
(274)
223. **CONCERT BAND** 1 credit. Open to all students who can qualify. Prerequisite: permission of the instructor.
(275)
224. **OPERA PRODUCTION** 3 credits. The preparation and presentation of a major musical production.
(373)

DEPARTMENT of PHILOSOPHY

Faculty

Professor: Jarrett.

Associate Professor: Karason.

Assistant Professor: Hagensick.

Arts and Sciences

Concentrations

MINOR: 20 credits selected under departmental advisement.

Teacher Education

MINOR: 25 credits selected under departmental advisement, but including two of the courses in the History of Philosophy 305, 306, 307, and one of the courses in Logic 102, 202, 302.

Courses In Philosophy

102. LOGICAL THINKING 2 credits. Signs, symbols, and language in human behavior; the detection of common fallacies, ambiguities, and vagueness; practice in defining. The course is designed to have a practical effect in improving the communication of meaning.
201. INTRODUCTION TO PHILOSOPHY 5 credits. Introduction to the great recurrent philosophical problems and some of the answers which have been developed through the ages.
202. INTRODUCTION TO LOGIC 5 credits. Rules of valid deduction from premises and of methods of formulating valid generalizations from experience with particular emphasis upon the methods of the sciences.
302. LOGIC AND COMPUTERS 2 credits Prerequisite: Mathematics 101 or Philosophy 202. An examination of the use of digital computers to solve problems in symbolic logic. Attention is given to the structure of machines, programming, the kinds of problems that can be considered mechanically, and the utility of such procedures.
305. HISTORY OF PHILOSOPHY: ANCIENT AND MEDIEVAL 5 credits. Great philosophical thinkers from the early Greeks to the Middle Ages, with especial attention paid to Plato and Aristotle.
306. HISTORY OF PHILOSOPHY: RENAISSANCE AND MODERN 5 credits. Great philosophical thinkers from the late Middle Ages to the Enlightenment, with especial attention paid to Descartes and the rationalists and to Locke and the empiricists.
307. HISTORY OF PHILOSOPHY: THE NINETEENTH AND TWENTIETH CENTURIES 5 credits. Great philosophical thinkers from Kant to the present.

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320. **INTRODUCTION TO THE PROBLEMS OF ETHICS** 3 credits. The meanings of such key concepts as "goodness," "rightness," "evil," "duty," and "happiness."
350. **ORIENTAL PHILOSOPHY AND RELIGION** 3 credits. An examination of some of the major philosophical and religious traditions of the Orient.
404. **SEMINAR IN PHILOSOPHY** 2-5 credits. Concentration for a full quarter upon the thought of an individual philosopher, such as Plato, or a particular school of thought, such as American Pragmatism.
405. **AESTHETICS** 3 credits. Philosophical study of beauty and of the creation, appreciation, and criticism of works of art.
406. **PHILOSOPHY OF LITERATURE** 2 credits. The nature of literature, and the relation of its aesthetic to its moral and cognitive values.
411. **PHILOSOPHY OF SCIENCE** 3 credits. Varying theories as to the nature, pre-suppositions, limitations, and interrelations of the sciences.
420. **ETHICAL THEORY** 3 credits. Critical analysis of writings of several major theorists in ethics—ancient, modern, and contemporary—and their treatment of ethical problems.
450. **PHILOSOPHY OF RELIGION** 3 credits. A study of the major religious concepts, such as "God," "immortality," and "freedom of the will," and some of the answers which have been proposed, historically and in our own times, to the problems which such concepts suggest.
515. **PHILOSOPHY OF EDUCATION** 3 credits. Critical analysis of theoretical positions in educational philosophy. The emphasis is on modern and contemporary discussions of educational theory. Seminar discussions. Also offered as Education 515.

DEPARTMENTS of

PHYSICAL EDUCATION,
HEALTH EDUCATION,
and RECREATION

Faculty

Men:

Associate Professors: Ciszek (Chairman), Lappenbusch, Lounsberry.

Assistant Professor: Tomoras.

Instructors: Hubbard, Jacobs.

Women:

Associate Professors: Aitken, Kilby, Weythman (Chairman).

Assistant Professor: Gutchow.

Instructor: Arnett,

The departmental programs encompass: (a) activity courses to meet general education requirements; (b) activity courses as electives; (c) professional courses for physical education and health education teachers and recreation leaders; (d) intramural sports and dance; (e) intercollegiate athletics.

General Education Requirements

In contributing to the general education of the student, the required physical education program provides: (1) a background of skills and knowledges in fundamental movements, (2) vigorous activities to improve physical fitness, (3) an opportunity to develop recreational skills and (4) an assurance of minimum swimming proficiency.

The student has the opportunity to choose activities within the framework of the required program (three credits) and is encouraged to elect additional courses after the requirement is satisfied. One course must be selected from each of the following to fulfill the requirement:

For Women:

Movement Fundamentals—P. E. 102w.

Aquatics*—1 credit selected from P. E. 112, 212, 214, 215, 216, 217.

Sports and Dance—1 credit selected from P. E. 122, 125, 132, 134, 136, 141w, 142w, 145w, 151w, 222, 225, 232, 236.

Women thirty years of age and over may fulfill the above requirement, or work out an individual plan of activities under the guidance of the Women's Physical Education Department.

For Men:

Aquatics*—1 credit selected from P. E. 112, 113, 214, 215, 216, 217.

Team Sport—1 credit selected from P. E. 142m, 143m, 144m, 145m, 146m, 147m, 280m, 281m, 282m.

Individual Sports and Dance—1 credit selected from P. E. 122, 125, 131, 132, 134, 136, 145m, 148m, 151m, 222, 225, 232, 236, 283m, 285m, 286m.

*Aquatics: A student who satisfactorily passes the aquatic test is exempt from the requirement and may select any other physical education activity.

Teacher Education

Concentrations

MAJOR. Physical Education (women)

(Normally accompanied by Health Science Minor).

P.E. 101w, 103w, 105, 122, 125, 151w, 212, 225, 302, 305w, 306, 320, 342w, 341w or 343w, 351w, 402w, 404w, 405.

Recreation 201 and 250.

Three credits under departmental advisement.

Participation in Intramural Sports, Dance, Professional Organizations.

The Health Science Minor is strongly recommended with this major.

MAJOR. Physical Education (Women):

(Normally accompanied by Minor in another field).

P.E. 101w, 103w, 105, 302w, 305, 306, 320, 342w, 341w or 343w, 404w, and 405.

3 additional credits selected under departmental advisement.

Health Ed. 252, 301; Zoology 241, 243.

Participation in Intramural Sports, Dance, Professional Organizations.

FIELD MINOR. Physical Education (Women):

P. E. 101w, or 103w, 105, 151w, 305, 306, 320, 404w.

Health Education 252.

1 credit in dance.

Select 3 additional credits from Physical Education 122, 125, 351w, 405;

Zoology 241, 243, strongly advised as electives.

FIELD MAJOR. Physical Education (Men):

P.E. 104m, 105, 122 or 222, 302, 303, 306, 308m, 351m, 404m, 405.

Select three credits from: P. E. 380m, 381m, 382m, 383m;

Health Education 301;

Zoology 241.

FIELD MINOR Physical Education (Men):

P.E. 105, 104m or Health Ed. 252, P.E. 306, 308m, 351m, 404m.

Select two from: P. E. 380m, 381m, 382m, 383m.

MINOR: Recreation

P.E. 101w or 103w, 305, 306, 320; for men, 4 additional credits under departmental advisement.

Recreation 201, 250, 412, 450, 451, 452;

Industrial Arts: 301.

Arts and Sciences

Concentrations

MINOR: Physical Education: Dance.

P.E. 121, 122, 125, 221, 222, 225, 226, 228, 320;

Philosophy 405.

6 additional credits selected under departmental advisement.

MAJOR: Recreation (Women):

P.E. 101w, or 103w, 105, 122, 131, 132, 133, 136, 151w, 212, 305w, 306, 308m, 320, 342w, 341w or 343w, 405; for men, 4 additional credits under departmental advisement.

Recreation: 201, 250, 412, 450, 451, 452.

Health Education: 252.

Zoology: 241, 243.

Supporting Courses: Industrial Arts 301; Music 320; Speech 430; Psychology 261, 355, 440; Sociology 201.

MINOR: Recreation.

P.E. 101w or 103w, 305w, 306, 308m, 320; for men, 4 additional credits under departmental advisement.

Recreation: 201, 250, 412, 450, 451, 452.

Industrial Arts: 301.

Intramural Sports and Dance

Intramural Sports (men) No credit. Opportunity for participation in the following seasonal sports: basketball, volleyball, swimming, tennis, softball, golf, badminton, flag football, table tennis, bowling.

Intramural Sports (women) No credit. Opportunity for participation in regularly scheduled meetings and tournaments in field hockey, volleyball, basketball, swimming, modern dance, folk and square dance, gymnastics, tumbling, softball, tennis, badminton, archery, hiking, table tennis, golf, and bowling.

Mixed Recreation The Physical Education Building is open on Thursday evening for sports suitable for men and women. These include badminton, volleyball, table tennis, swimming, and folk dancing.

Courses in Physical Education

- 101w. **FALL TEAM SPORTS** 2 credits. Majors only. Knowledge of rules and development of personal skills in soccer, speedball, speed-a-way, and basketball.
- 102w. **MOVEMENT FUNDAMENTALS** 1 credit. A course designed to develop fundamental mechanics of body movement and skill in basic rhythms.
- 103w. **SPRING TEAM SPORTS.** 2 credits. Majors only. Knowledge of rules and development of personal skills in volleyball, field hockey, and softball.
- 104m. **ATHLETIC INJURIES AND TRAINING** (Men) 3 credits. Treatment for injuries common to the playfield, gymnasium, and athletic field; training and safety measures for the prevention of injuries, especially during exercise; procedures for building physical stamina; practical experience in taping procedures.
105. **HISTORY OF PHYSICAL AND HEALTH EDUCATION AND RECREATION** 3 credits. In addition to study of the historical backgrounds, this course aims to develop breadth and depth of understanding concerning the range of opportunities in the field, essential qualifications, and professional preparation.
112. **BEGINNING SWIMMING** .1 credit.
(a) For non-swimmers.
(b) For those students who cannot swim 25 yards and cannot support themselves in deep water.
121. **BEGINNING SOCIAL DANCE** 1 credit. Current ballroom dance steps.
(125)
122. **BEGINNING FOLK AND SQUARE DANCE** 1 credit. Basic folk dance steps and square dance patterns.
(129)

125. MODERN DANCE 1 credit. Techniques. Stress is placed on creativity.
(127)
131. ARCHERY 1 credit.
(138)
132. BADMINTON (Beginning) 1 credit.
(131)
133. BEGINNING BOWLING 1 credit. Fee \$6.00.
134. FENCING 1 credit.
(139)
135. BEGINNING GOLF 1 credit.
136. BEGINNING TENNIS 1 credit. Student furnishes his own equipment.
137. BEGINNING SKIING 1 credit. Instruction in beginning techniques. Classes
(117) are held at Heather Meadows in the Mount Baker area. Students furnish their own equipment. The fee of \$28.50 includes transportation.
138. SKI CONDITIONING 1 credit. An activity course to prepare the skier for
(118) participation. Exercises for leg and body control are included together with some of the fundamental ski positions. Students must furnish their own boots and skis.
- 141w. FIELD HOCKEY (women) 1 credit.
- 142m. BASKETBALL (men) 1 credit.
- 142w. BASKETBALL (women) 1 credit.
- 143m. SOFTBALL (men) 1 credit.
- 143w. SOFTBALL (women) 1 credit.
- 144m. SPEEDBALL AND SOCCER (men) 1 credit.
- 144w. SPEEDBALL AND SOCCER (women) 1 credit.
- 145m. VOLLEYBALL (men) 1 credit. Techniques, skills, team strategy, and tournament play.
- 145w. VOLLEYBALL (women) 1 credit.
- 146m. BODY CONDITIONING (men) 1 credit. Calisthenics and conditioning exercises to develop body strength, coordination, flexibility and agility.
- 147m. TOUCH FOOTBALL 1 credit. Fundamentals and skills in touch football.
- 148m. WEIGHT TRAINING (men) 1 credit. A series of weight training exercises performed with barbells and dumbbells for the development of strength.
- 151m. APPARATUS, STUNTS, AND TUMBLING (men) 1 credit. Basic skills on the
(132m) side horse, parallel bars, horizontal bar, trampoline, and mats.
- 151w. GYMNASTICS, TUMBLING, AND REBOUND TUMBLING (women) 1 credit.
(132w)
212. INTERMEDIATE SWIMMING 1 credit.
(113) (a) For those who have passed a course in beginning swimming.
(b) For those who can swim 25 yards and support themselves in deep water.
214. ADVANCED SWIMMING 1 credit.
(1) For those who have passed a course in intermediate swimming.
(2) For those who can swim 25 yards in reasonably good form using each of the following strokes: front crawl, elementary back, back crawl, side stroke, and can swim 100 yards utilizing one of these strokes.

215. **SYNCHRONIZED SWIMMING** 1 credit. Prerequisite: advanced swimming or equivalent. Techniques in synchronized swimming with emphasis on choreography.
216. **LIFE SAVING AND WATER SAFETY** 2 credits. Instruction leading to qualification for the American Red Cross Senior Life Saving Certificate.
217. **WATER SAFETY INSTRUCTOR'S COURSE** 2 credits. Prerequisite: current American Red Cross Senior Life Saving Certificate. Methods for teaching swimming and life saving skills. Completion of this course qualifies the student as an American Red Cross Water Safety Instructor.
221. **ADVANCED SOCIAL DANCE** 1 credit. Prerequisite: 121 or equivalent. Ballroom steps for advanced dancers.
222. **ADVANCED FOLK AND SQUARE DANCE** 1 credit. Prerequisite: 122 or equivalent. Advanced folk and square dances for secondary school and adult recreation groups. Opportunity is given for the student to practice calling.
225. **INTERMEDIATE MODERN DANCE** 1 credit. Prerequisite: 125 or equivalent. Intermediate dance techniques, group dance composition, and the cultural place of dance in society.
226. **RHYTHMIC ANALYSIS** 2 credits. Prerequisite: 125. Inherent factors of rhythm; the application of the rhythmic analysis to all forms of movement including sports, dance, aquatics, and stage techniques.
228. **DANCE COMPOSITION AND PRODUCTION** 2 credits. Individual and group creative work in dance forms and composition and practical experience in formulating, developing, and presenting dance programs.
232. **ADVANCED BADMINTON** 1 credit. Prerequisite: PE 132 or equivalent.
233. **INTERMEDIATE BOWLING** 1 credit. Fee, \$6.00. Prerequisite: P.E. 133 or equivalent.
235. **ADVANCED GOLF** 1 credit. Prerequisite: P.E. 135 or equivalent. Greens fee is \$3.00. Equipment is furnished by the student.
236. **ADVANCED TENNIS** 1 credit. Prerequisite: P. E. 136 or its equivalent. The student furnishes his own equipment.
237. **INTERMEDIATE SKIING** 1 credit. Prerequisite: P. E. 137 or equivalent. Instruction in advanced skiing techniques. Classes are held at Heather Meadows in the Mt. Baker area. The student furnishes his own equipment. The fee of \$28.50 includes transportation.
238. **ADVANCED SKIING** 1 credit. Prerequisite: P. E. 237 or equivalent. Advanced skiing techniques including parallel turns. Classes are held at Heather Meadows in the Mt. Baker area. The student furnishes his own equipment. The fee of \$28.50 includes transportation.
- 280m. **VARSITY FOOTBALL** 1 credit.*
- 281m. **VARSITY BASKETBALL (men)** 1 credit.*
- 282m. **VARSITY BASEBALL (men)** 1 credit.*
- 283m. **VARSITY TRACK (men)** 1 credit.*
- 285m. **VARSITY GOLF (men)** 1 credit.*
- 286m. **VARSITY TENNIS (men)** 1 credit.*
- 287m. **VARSITY SKIING (men)** 1 credit. The fee of \$28.50 includes transportation.
- 288m. **VARSITY SWIMMING (men)** 1 credit.*

*Not more than one credit may be earned in any one varsity sport.

- 300. SPECIAL PROBLEMS IN THE AREA OF PHYSICAL EDUCATION** 2 to 5 credits. Prerequisite: consent of the department chairman. For upper division students by conference arrangement with the instructor.
- 302. KINESIOLOGY** 3 credits. Prerequisite: Zoology 241. Important muscles of the body, including origin, insertion, action, and structure; principles of body mechanics; analysis of leverage in body movements and problems of readjustment in relation to posture and physical activities.
- 303. PHYSIOLOGY OF MUSCULAR EXERCISE** 3 credits. Prerequisite: consent of the instructor. The physiology of muscular exercise as related to physical activities; the application of physiological facts to the problems of conditioning. This course includes a study of muscular efficiency, fatigue, recovery, chemical changes, and neuro-muscular control with special reference to games, sports, and adaptive activities.
- 304m. PREVENTION AND REHABILITATION OF ATHLETIC INJURIES** 3 credits. Pre-(374m) requisite: P. E. 104m or consent of the instructor. An advanced course dealing with the origin, effects, and prevention of athletic injuries. Care of injuries, including techniques of taping, is stressed. Special emphasis is given to rehabilitation after injury. Offered summer session only.
- 305w. METHODS AND MATERIALS FOR TEACHING SPORTS** (women) 4 credits. Pre-(307-309) requisites: 101w, 103w, 131, 132, 133, 134, 136 or equivalent. Preparation for teaching individual and team sports to secondary school girls.
- 306. PHYSICAL EDUCATION METHODS AND MATERIALS FOR THE ELEMENTARY SCHOOL** 3 credits. Prerequisites: Education 355. Physical Education activities desirable in an elementary school program and practice in the presentation of these activities.
- 308m. METHODS AND MATERIALS OF PHYSICAL EDUCATION FOR BOYS** (men) 3 (365m) credits. Prerequisites: service courses in physical education (see Concentrations). A course stressing the selection of activities and appropriate methods of instruction for secondary school boys. Opportunity is given for actual teaching of these activities. Required of those majoring or minoring in physical education.
- 320. METHODS AND MATERIALS FOR TEACHING DANCE** 2 credits. Prerequisites: (305) P. E. 121, 122, 125 or equivalent. Methods and materials used in teaching modern, folk, social, and square dancing.
- 341w, 342w, 343w. OFFICIATING WOMEN'S SPORTS** 1 credit each. Officiating (310-11-12w) techniques of volleyball, basketball, tennis, track, and field.
- 351m. TEACHING GYMNASTICS** (men) 1 credit. A course for physical education (232m) majors and minors with emphasis on beginning and intermediate performance skills. Opportunity is provided for each student to teach several basic stunts and calisthenics.
- 351w. TEACHING OF GYMNASTICS, TUMBLING, AND TRACK AND FIELD** (women) (232w) 2 credits. Methods and materials for elementary gymnastics, stunts, tumbling, and track and field for women.
- 380m. THEORETICAL FOOTBALL** (men) 2 credits. A course in the theory and appreciation of football with methods and materials of organization. Special consideration is given to passing, blocking, tackling, formations, position play, styles of play, and game tactics founded upon present day game rules.
- 381m. THEORETICAL BASKETBALL** (men) 2 credits. A practical course in coaching of (368m) basketball. Consideration of passing, ball handling, screening, pivoting, shooting, styles of offense and defense, present-day rules, and rule changes.

- 382m. THEORETICAL BASEBALL (men) 2 credits. A course dealing with the coaching (469m) of baseball with special emphasis given to batting, pitching, fielding, position play, team offense and defense, and other technical and strategical procedures of play.
- 383m. THEORETICAL TRACK (men) 2 credits. A course in the theory of the various (370m) track and field events and material on organization and administration of a track meet.
400. SPECIAL PROJECTS IN PHYSICAL EDUCATION 2 to 5 credits. Prerequisites: senior status and consent of the instructor and department chairman. Individual instruction for students who wish to undertake special projects under supervision.
- 402w. TEACHING BODY MECHANICS AND MOVEMENT FUNDAMENTALS 3 credits. (474w) Methods and materials used in teaching body mechanics and movement fundamentals. It includes a study of relaxation, conditioning, and physical fitness for girls and women.
- 404m. ADMINISTRATION OF PHYSICAL EDUCATION IN SCHOOLS 3 credits. Pre- (465m) requisites: service courses in physical education (see Concentrations). A course aimed to give the student an understanding of the problems involved in the construction of a physical education program; a detailed study of the service, intramural, recreational, and athletic programs for secondary school boys.
- 404w. ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION FOR SEC- (414w) ONDARY SCHOOL GIRLS 3 credits) Prerequisites: P. E. 105 and 350w. Criteria for the selection of activities, the organization of classes, the departmental personnel and policies, the physical plant and its upkeep, and the purchase and care of equipment for the physical education program.
405. PRINCIPLES OF PHYSICAL EDUCATION 3 credits. Prerequisites: P. E. 105, 306, (470) and 305w, or 308m. Scientific and philosophical principles related to physical education; its purposes, scope and curriculum.
- 407w. SEMINAR IN GIRLS' PHYSICAL EDUCATION ACTIVITIES 3 credits. Prerequisite: teaching experience. Advanced study to extend the skills and understanding of activities which are used in girls' physical education. Summer only.
- 410w. EXTRA-CLASS ACTIVITIES IN PHYSICAL EDUCATION FOR GIRLS (women) 2 credits. Intramural programs, tournaments, play days, sports days, and G.A.A. for secondary school girls. Summer only.
490. TECHNIQUES FOR EVALUATING PHYSICAL ABILITIES 3 credits. Prerequisites: (489) Education 470 and consent of the instructor. Application of measurement theory to physical education; the selection and administration of appropriate tests, and the interpretation of results of fundamental statistical procedure. Emphasis is placed upon tests of physical fitness, body mechanics, sport skills and knowledge. Summer only.
498. STRAIGHT LINE PHILOSOPHY 3 credits. A classroom lecture, illustration, and discourse open to senior and graduate men and women with or without experience in athletics; study of the administration of human conduct in activities on straight line enclosures.
499. PHYSICAL FITNESS AND THE PUBLIC SCHOOL 3 credits. Prerequisite: senior or graduate status or teaching experience. The organization and development of physical fitness programs in the public schools; practical considerations in instruction and administration. Summer only.
500. PROBLEMS IN PHYSICAL EDUCATION 2 to 5 credits. For teachers with experience in physical education. Controversial issues in the field. Attention is given to the professional problems which are pertinent to the individual members of the group.

503. **PHYSICAL EDUCATION EQUIPMENT AND FACILITIES** 2 credits. Design and construction of gymnasiums and other facilities for the physical education program, and the purchase and care of athletic and physical education equipment. Summers only.

Courses in Health Education

252. **FIRST AID** 2 credits. First aid for common injuries and illnesses based on the American Red Cross standard and advanced first aid courses. Students who qualify receive American Red Cross certificates.
301. **HEALTH EDUCATION IN THE PUBLIC SCHOOLS** 3 credits. Methods and Materials. Special consideration is given to basic principles of health councils, and to the study and evaluation of source material.
352. **THE FIRST AID INSTRUCTOR** 1 credit. Prerequisite: Health Ed. 252 or a current advanced Red Cross First Aid Certificate. Instruction leading to qualification for the American Red Cross First Aid Instructor's Certificate. Minimum age, 20 years.
- 400-1. **WORKSHOP: HEALTH EDUCATION IN THE PUBLIC SCHOOLS** 5 credits. Prerequisite: teaching experience. This course provides wide latitude for individual endeavor in dealing with problems of health education; teaching, administration, and coordination with the total school program. The course is best suited for those who have had a background of experience in the field.
500. **PROBLEMS IN HEALTH EDUCATION** 2-5 credits. A course designed to meet the needs of the graduate student concerned with a special problem in the field of health education.

Courses in Recreation

201. **RECREATION LEADERSHIP** 2 credits. Skills and leadership techniques for leaders of school, playground and community recreation stressing use of materials and methods in various areas of recreational activities.
250. **CAMPING AND OUTDOOR EDUCATION** 3 credits. Organization and program (290-104) in private, agency and school camps. Qualifications and responsibilities of the camp counselor, and practical work in camping techniques are considered.
412. **ORGANIZATION AND ADMINISTRATION OF SCHOOL AND COMMUNITY RECREATION** 3 credits. Prerequisites: Rec. 201, 250. Development of program for school and community recreation including personnel, finance, facilities, and activities. Opportunity is given for observation of playground and recreational activities.
- 450, 451, 452. **FIELD WORK IN RECREATION** 1 or 2 credits each. Prerequisites: P. E. 306, Rec. 201, 412. Practical experience in a community recreation program. Hours are arranged with the instructor prior to enrollment.
500. **PROBLEMS IN RECREATION** 2 to 5 credits. A course for experienced recreation leaders with opportunity for individualized study of problems growing out of their professional experience.

DEPARTMENT of

PHYSICS and CHEMISTRY

Faculty

Professors: Bender, Knapman.

Associate Professors: Besserman, Lahti.

Assistant Professors: Dittrich, Eddy, Lindsay, Neuzil, Nilsson.

Instructors: Sunset, Thayer,

Program Planning

It is strongly recommended that a student planning a program involving a major or minor in chemistry or physics consult an adviser in the department at the beginning of the freshman year so that sequences of courses can be established. The following programs are recommended:

	CHEMISTRY MAJOR			PHYSICS MAJOR		
First Year	Math.	101, 102, 103		Math.	101, 102, 103	
	Chem.	121, 122, 131		Chem.	121, 122 (recommended)	
Second Year	Chem.	351, 352, 233		Phys.	231, 232, 233	
		354, 355		Math.	201, 202, 203	
	Phys.	231, 232, 233				
	Math.	201 (202, 203 recommended)				

Teacher Education

For students planning to teach in the elementary or junior high school the general science major or minor is recommended (see page 206); while for students planning to teach in the senior high school the chemistry, physics, or physical science major or minor is recommended. The upper division courses in these areas are also available under advisement for students working toward the Master of Education degree or the fifth year program.

Concentration in Physical Science

The physical science major combined with the mathematics minor is recommended for the student planning to begin his teaching in the small high school.

MAJOR: General Science 405 or 406 in lieu of Physical Science 101;
45 additional credits to include: Chemistry 121, 122, 131, 251; Physics 231, 232, 233 (or 131, 132, 133), 381; Physical Science 492.

Concentrations in Chemistry

MAJOR: General Science 405 or 406 in lieu of Physical Science 101 in the required general education program;

45 additional credits to include Chemistry 121, 122, 131, 233, 351, 352, 354, 461, 462, 463, and Physical Science 492.

MINOR: For science majors: Chemistry 121 in lieu of Physical Science 101 in the required general education program;

For non-science majors: General Science 405 or 406 in lieu of Physical Science 101 in the required general education program;

25 additional credits in chemistry to include Chemistry 121, 122, 131, 233, 251 (or 351 and 354).

Concentrations in Physics

MAJOR: General Science 405 or 406 in lieu of Physical Science 101 in the required general education program;

45 additional credits to include Physics 231, 232, 233 (or equivalent by departmental permission) and other physics courses to total 42 credits plus Physical Science 492.

MINOR: For science majors: Physics 231 in lieu of Physical Science 101 in the required general education program;

For non-science majors: General Science 405 or 406 in lieu of Physical Science 101 in the required general education program;

25 additional credits in physics to include Physics 231, 232, 233 (or equivalent by departmental permission).

Arts and Sciences

For students planning to continue their studies in graduate school or to enter business or industry, majors and minors in chemistry and physics are offered. Many of the courses in these areas are applicable to the various preprofessional programs.

Concentrations in Chemistry

MAJOR: General Science 405 or 406 in lieu of Physical Science 101 in the required general education program;

50 additional credits in chemistry to include Chemistry 121, 122, 131, 233, 351, 352, 354, 435, 461, 462, 463, 464.

Supporting courses: one year of college physics; Mathematics 101, 102, 103, 201; reading knowledge of a foreign language is recommended.

MINOR: For science majors: Chemistry 121 in lieu of Physical Science 101 in the required general education program;

For non-science majors: General Science 405 or 406 in lieu of Physical Science 101 in the required general education program;

25 additional credits in chemistry to include Chemistry 121, 122, 131, 233, 251 (or 351 and 354).

Concentrations in Physics

MAJOR: General Science 405 or 406 in lieu of Physical Science 101 in the required general education program;

50 additional credits in physics to include Physics 231, 232, 233 (or equivalent by departmental permission).

4 credits of advanced physics laboratory courses;

6 credits of 400-level physics lecture courses.

Supporting courses: Mathematics 101, 102, 103, 201, 203, 331. Also recommended: Chemistry 121, 122, and a reading knowledge of a foreign language.

MINOR: For science majors: Physics 231 in lieu of Physical Science 101 in the required general education program;

For non-science majors: General Science 405 or 406 in lieu of Physical Science 101 in the required general education program;

25 additional credits in physics to include Physics 231, 232, 233 (or equivalent by departmental permission).

Courses in Physical Science

101. **MATTER AND ENERGY** 4 credits. Prerequisite: Satisfactory performance on the mathematics entrance test or satisfactory completion of Mathematics 3. Development of scientific method and attitudes. Selected concepts from the areas of motion, states of matter, kinetic molecular theory, force field interaction, theory of atomic and nuclear structure, and the nature of chemical bonding are developed through lectures, discussion, demonstrations, and laboratory.
105. **INTRODUCTION TO ASTRONOMY** 3 credits. Prerequisite: High school physics or Physical Science 101 or equivalent. The solar system and its origin, the stars and their apparent and real motion, and internal processes. The concepts of gravitation, curved space, and relativity of space and time are considered.
382. **PHYSICAL SCIENCE FOR THE ELEMENTARY SCHOOL** 3 credits. Prerequisite: Science general education requirements or equivalent. The teaching of the physical sciences in the elementary grades. Emphasis is placed upon the use of experiments, demonstrations, and readings to achieve selected objectives. Previously listed as Science Education 482.
492. **PHYSICAL SCIENCE FOR THE JUNIOR AND SENIOR HIGH SCHOOL.** 3 credits. Prerequisites: 15 credits of chemistry or physics. An examination of the content, materials, and methods of teaching general physical science, physics, and chemistry in the junior and senior high schools. Previously listed as Science Education 492.

Courses in Chemistry

100. **ELEMENTARY CHEMISTRY** 2 credits. Prerequisite: satisfactory score on a Mathematics pretest or satisfactory completion of Mathematics 3. An introduction to the structure of matter and to chemical reactions with emphasis on nomenclature, equations and weight relations. Only for students who have insufficient preparation for Chemistry 121 or 125.
- 121, 122. **GENERAL CHEMISTRY** 5 credits each. Prerequisite: Satisfactory score on chemistry pretest or satisfactory completion of Chemistry 100. Principles and laws of chemistry developed from the properties, structure, and reactions of matter.
125. **GENERAL CHEMISTRY** 5 credits. Prerequisite: satisfactory score on a chemistry pretest or satisfactory completion of Chemistry 100. Principles and laws of chemistry developed from the properties, structure, and reactions of matter. An abbreviated course in general chemistry for persons studying general science, biological science, nursing, and home economics.
131. **QUALITATIVE ANALYSIS** 5 credits. Prerequisite: Chemistry 122 or permission of the instructor. The theory of electrolytic solutions and its application to systematic separations; A detailed description of present chemical theories.
233. **QUANTITATIVE ANALYSIS** 5 credits. Prerequisite: Chemistry 131. Theory and practice of gravimetric, volumetric, colorimetric, and electrolytic analysis.
251. **ELEMENTARY ORGANIC CHEMISTRY** 5 credits. Prerequisite: Chemistry 121 or 125. Reactions, nomenclature, and uses of carbon compounds. An abbreviated course in organic chemistry primarily for persons studying general science, biological science, nursing, and home economics.
300. **PROJECT IN CHEMISTRY** 1 or 2 credits. Prerequisite: 20 credits of chemistry and permission of the instructor. Projects under supervision.
305. **GLASS WORKING** 1 credit. Prerequisite: permission of the instructor. The basic techniques of glass working and the construction of simple glass apparatus.
344. **INORGANIC PREPARATIONS** 2 or 3 credits. Prerequisite: Chemistry 233. Preparations of selected inorganic compounds of high purity by diverse methods.
- 351, 352. **ORGANIC CHEMISTRY** 3 credits each. Prerequisite: Chemistry 122 or permission for Chemistry 351; Chemistry 351 for 352. Chemistry of carbon compounds with emphasis on structural theory, reactions, and mechanisms.
- 354, 355. **ORGANIC CHEMISTRY LABORATORY** 2 credits each. Prerequisite: Chemistry 351 before or concurrently for Chemistry 354; Chemistry 352 and 354 before or concurrently for Chemistry 355. Reactions, separations, and syntheses of organic compounds.
357. **QUALITATIVE ORGANIC ANALYSIS** 5 credits. Prerequisite: Chemistry 131, 352, and 354. Identification and characterization of organic compounds.
399. **SEMINAR IN CHEMISTRY** 1 credit. Prerequisite: 25 credits in chemistry and permission of the instructor. The presentation and discussion of papers in chemistry.
400. **PROJECT IN CHEMISTRY** 1 to 3 credits. Prerequisite: permission of the instructor. Special projects under supervision.
435. **INSTRUMENTAL ANALYSIS** 3 credits. Prerequisite: Chemistry 463 or permission of the instructor. Theory and application of optical and electrical methods of analysis.
441. **INORGANIC CHEMISTRY** 3 credits. Prerequisite: Chemistry 463 or permission of the instructor. Advanced topics in inorganic chemistry.

- 461, 462, 463. **PHYSICAL CHEMISTRY** Chemistry 461 and 462 are 4 credits each; Chemistry 463 is 3 credits. Prerequisite: Chemistry 233, one year of college physics, and Mathematics 201, or permission of the instructor. Atomic and molecular structure, states of matter, solutions, chemical thermodynamics and equilibria, chemical kinetics, and electro-chemistry.
- 464, 465. **PHYSICAL CHEMISTRY LABORATORY** 2 credits each. Prerequisite: Chemistry 461, 462, 463. Chemistry 464 and 465 may be taken concurrently with Chemistry 462 and 463 respectively.
482. **NUCLEAR CHEMISTRY** 3 credits. Prerequisite: Chemistry 131, Physics 381, and Mathematics 103, or permission of the instructor. Theoretical and applied nuclear and radio-chemistry.
483. **NUCLEONICS LABORATORY** 2 credits. Prerequisite: Physics 381 or permission of the instructor. Experimental techniques of nuclear physics and nuclear chemistry.
498. **RESEARCH PROJECT IN CHEMISTRY** 6 credits. Prerequisite: permission of the instructor. Investigation of a problem in chemistry under the sponsorship and supervision of a member of the chemistry faculty. An acceptable written report of the project is required together with presentation of the report at a chemistry seminar. The project must extend over a minimum of two quarters with credit granted after the presentation of the seminar.

Courses in Physics

- 131, 132, 133. **INTRODUCTORY PHYSICS** 5 credits each. Prerequisite: 1½ years of high school algebra or Math. 100 or 151. Physics 131 is a prerequisite for Physics 132 and 133. Classical areas of physics, such as simple machines and mechanics, sound, heat, and temperature, magnets, electrostatic charges, reflection and refraction. The course, designed to show levels of unification of basic ideas, includes unification of wave theory of sound and light, unification of motion by a vector model. Classical concepts are utilized to develop the appropriate molecular, atomic and nuclear models. For elementary and junior high school teachers, and other areas not requiring mathematics into the calculus.
155. **ELEMENTARY ELECTRONICS** 2 credits. Prerequisite: 1½ years of high school algebra or Mathematics 151 or Mathematics 100. Principles of electron tubes and electrical circuits. Emphasis is placed on construction of simple circuits.
- 231, 232, 233. **GENERAL AND ENGINEERING PHYSICS** 5 credits each. Prerequisite: Mathematics 201 must be taken before or concurrently with Physics 231. Derivation of relationships and their application in the solution of problems. For persons who plan to major in some field of science or engineering and those persons who plan to teach physical science at the secondary level.
- 255, 256. **ELEMENTARY ELECTRONICS** 3 credits each. Prerequisite: Physics 233 or permission. Physics 255 prerequisite for Physics 256. Physics of electron devices, basic electronic circuits and technique of construction.
300. **PROJECTS IN PHYSICS** 1 or 2 credits. Prerequisite: 15 credits in physics and the consent of the instructor. Projects under supervision.
321. **ATMOSPHERIC SCIENCE** 3 credits. Prerequisite: 1 year of college physics. Principles necessary for the understanding of meteorology, utilized in weather analysis and forecasting.
322. **ATMOSPHERIC SCIENCE** 3 credits. Prerequisite: Physics 321. Principles necessary for the understanding of local and extra-terrestrial pollutants.

- 341, 342. **ANALYTICAL MECHANICS** 3 credits each. Prerequisite: Physics 233 and Mathematics 203 or permission for Physics 341; Physics 341 and Mathematics 331 for Physics 342. Intermediate course introducing analytical methods in the solution of problems of statics and dynamics.
343. **MECHANICS LABORATORY** 1 credit. Prerequisite: Physics 341 before or concurrently.
- 351, 352. **OPTICS** 3 credits each. Prerequisite: Physics 233 and Mathematics 203 or permission for Physics 351; Physics 351 and Mathematics 331 for Physics 352. Geometrical and physical optics.
353. **OPTICAL MEASUREMENTS LABORATORY** 1 credit. Physics 351 before or concurrently.
- 355, 356. **ELECTRICITY AND MAGNETISM** 3 credits each. Prerequisite: Physics 233 and Mathematics 203 or permission for Physics 355; Physics 355 and Mathematics 331 for Physics 356. Presentation of elementary electro-magnetism including introduction of Maxwell's Equations. Electrical and magnetic properties of matter and electrical circuit theory.
357. **ELECTRICAL MEASUREMENTS LABORATORY** 2 credits. Prerequisite: Physics 355 before or concurrently.
- 361, 362. **THERMODYNAMICS** 3 credits each. Prerequisite: Physics 233 and Mathematics 203 or permission for Physics 361; Physics 361 and Mathematics 331 for Physics 362. Presentation of laws of thermodynamics, kinetic theory, classical statistical mechanics.
363. **THERMODYNAMICS LABORATORY** 1 credit. Prerequisite: Physics 361 before or concurrently.
381. **INTRODUCTION TO MODERN PHYSICS** 3 credits. Prerequisite: Physics 133 or 233 or permission. Physics since the turn of the century.
399. **SEMINAR IN PHYSICS** 1 credit. Prerequisite: 25 credits in Physics and permission of the instructor. Credit allowed only to students who participate in the presentation of papers.
400. **PROJECTS IN PHYSICS** 1 to 3 credits. Prerequisite: permission of the instructor. Special projects under supervision.
- 481, 482. **ATOMIC AND NUCLEAR PHYSICS** 3 credits each. Prerequisite: Physics 342 and 356 or permission. Theoretical and experimental aspects of atomic and nuclear physics. For physics and mathematics majors.
483. **ATOMIC AND NUCLEAR MEASUREMENTS LABORATORY** 1 credit. Prerequisite: Physics 481. Experimental techniques in modern physics.
- 485, 486, 487. **THEORETICAL PHYSICS** 3 credits each. Prerequisite: Physics 342 and 356 and Mathematics 361 or permission. Classical topics analyzed with advanced mathematical rigor. Designed for advanced physics and mathematics majors.
498. **RESEARCH PROJECT IN PHYSICS** 6 credits. Prerequisite: permission of the instructor. Investigation of a problem in physics under the sponsorship and supervision of a member of the physics faculty. An acceptable written report of the project is required together with a presentation of the report at a physics seminar. Project must extend over a minimum of two quarters with credit granted after presentation of the seminar.

DEPARTMENT of PSYCHOLOGY

Faculty

Associate Professors: Adams, Blood, Budd, Etzel, Hansen, Harwood (Chairman), Nugent.

Assistant Professors: Elich, E. Jones, Simmel.

Instructor: Gerhard.

Lecturer: Mason.

A major in psychology is the first step toward any of a number of professional opportunities. In addition to college teaching and research, these include personnel work in industry and government, vocational and personal guidance in schools and colleges, and clinical work with either children or adults in guidance clinics, juvenile and criminal courts, and mental hospitals including Veterans Administration hospitals. Nearly all of these positions require graduate work in a university leading to the M.A. or the Ph.D. degree. The function of the program in the Arts and Sciences Division is that of preparing the student for later graduate work in the field.

The undergraduate major in psychology should be supported by a well-rounded background in all the major fields of knowledge with particular emphasis upon sociology and the biological sciences. Students who plan eventually to work toward the Ph.D. degree should gain a reading knowledge of French and German during their undergraduate years.

Students whose average falls below "B" are not usually advised to continue in the field of psychology.

Teacher Education

Students majoring in education are required to take Psychology 261, 355, 371, 451 (Psychology 455 is equivalent to Psychology 261 and 451).

Concentrations

FIELD MINOR: Fifteen credits under advisement in addition to courses in psychology taken as part of the program of general and professional education.

Arts and Sciences

Concentrations

MAJOR: Psychology 200 or 201, 373 (or 473), 474, and 405; additional credits in psychology to total at least 36 credits selected in consultation with a departmental adviser.

Supporting courses: Introductory Sociology, Introductory Philosophy, 14 credits in the field of biological science.

MINOR: Psychology 200 or 201; additional credits in psychology to total at least 20 credits selected in consultation with a departmental adviser.

Courses In Psychology

201. **GENERAL PSYCHOLOGY** 4 credits. Prerequisite: General Education 105 or permission of the instructor. (Not open to students who have taken Psychology 200.) Experimentally oriented study of the basic psychological concepts.
261. **THE PSYCHOLOGY OF ADJUSTMENT** 3 credits. Prerequisite: Psychology 200 or General Education 105. Adjustments in normal human life. Typical problems and reactions are considered. The development of personality and its relation to the adequacy of adjustment is studied.
302. **COMPARATIVE PSYCHOLOGY** 3 credits. Prerequisite: Psychology 200 or 201. (Not open to students who have had previously listed Psychology 305). Application of evidence generated from the laboratory experiments and the ethological studies of animal behavior to general psychology. Particular emphasis is given to study of the sensory processes, motivation, and learned and unlearned behavior.
320. **INDUSTRIAL PSYCHOLOGY** 3 credits. Prerequisite: Psychology 200 or 201 or 261. (Not open to students who have had previously listed Psychology 220). Application of psychological principles to such industrial problems as personnel selection and appraisal, human relations, marketing, training and engineering psychology.
373. **ELEMENTARY STATISTICAL METHODS IN EDUCATION AND PSYCHOLOGY** 5 credits. Prerequisite: permission of the instructor. Statistical procedures for educational research. Emphasis is given to the criticism of evidence, the design of simple studies, and the basic techniques of statistical inference. The course is concerned with informed reading as well as with the application of statistics to original research. Also offered as Education 373.
400. **SPECIAL PROBLEMS** 1-3 credits. Prerequisite: consent of the instructor. This course is available to advanced students who wish to investigate, with consultation, special problems in the field of psychology.
402. **MOTIVATION** 3 credits. Prerequisite: 3 courses in psychology. Experimental findings, and theoretical interpretations of the biological, psychological, and social aspects of motivation.
405. **RECENT PSYCHOLOGICAL LITERATURE** 3 credits. Prerequisite: twenty credits in psychology. Recent research and writings in the field of psychology. Use is made of the Psychological Abstracts, the various psychological journals, and of significant recent books in the field. This course is required of psychology majors and may be elected by graduate students in education.
406. **SYSTEMATIC PSYCHOLOGY** 3 credits. Prerequisite: fifteen credits in psychology. Examination and evaluation of the various contemporary viewpoints in psychology.

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408. **THE PSYCHOLOGY OF LEARNING** 5 credits. Prerequisite: Education or Psychology 355, or permission of instructor. The major principles and theories of learning.
440. **SOCIAL PSYCHOLOGY** 3 credits. Prerequisites: ten credits in psychology or Psychology 200 or 201 or 261 and five credits in sociology. The psychology of human institutions with special reference to the impact on individual behavior.
452. **THEORY OF PERSONALITY** 5 credits. Prerequisite: thirteen credits in psychology. Theoretical approaches to personality. Major philosophic assumptions, historical position, and experimental data are considered in evaluating personality theories.
453. **INDIVIDUAL DIFFERENCES** 3 credits. Behavioral differences found among individuals. Summer only.
464. **ABNORMAL PSYCHOLOGY** 3 credits. Prerequisite: Psychology 261 or 455, or permission of the instructor. Psychoses, neuroses, and other forms of behavior deviation; conceptions regarding these conditions.
466. **THE BRIGHT AND GIFTED CHILD** 3 credits. Prerequisite: teaching experience or permission of the instructor. A study of identification procedures, curriculum, and teaching methods suited to the education of children with superior and special abilities.
474. **EXPERIMENTAL PSYCHOLOGY** 5 credits. Prerequisite: Psychology 200 or 201, 373, and permission of the instructor. Experimental techniques employed in psychology; participation in conducting experiments and in the interpretation of data.
491. **PSYCHOLOGY OF OCCUPATIONS** 3 credits. Prerequisite: Psychology 431 or permission. Psychological and social factors in occupational choice. The course presents research and theory on occupational choice as background for counseling. Sources of occupational materials are reviewed. Interest and aptitude tests for occupational counseling are evaluated. Summer only.
500. **SPECIAL PROBLEMS** 1-3 credits. Prerequisite: graduate status and consent of the instructor. This course is available to advanced students who wish to investigate, with consultation, special problems in the field of psychology.
531. **SUPERVISED PRACTICE IN GUIDANCE AND COUNSELING** 3 credits. Prerequisite: Psychology 431 and 572. Examination and practice under supervision of various guidance and counseling techniques including the use of psychological test case studies, and conferences. Summer only.
533. **THEORY AND TECHNIQUES OF INTERVIEWING** 3 credits. Prerequisite: permission of the instructor. A study of psychological and social factors in interviewing with laboratory opportunities for the development of interviewing skills. Theoretical foundations of different approaches to interviewing, special techniques available, and research methods for evaluating interviews are critically reviewed. Summer only.
537. **READING AND CONFERENCE IN COUNSELING** 1 credit. Discussion and readings related to ethics and current problems in counseling. These are directed toward establishing a critical and informed professional worker. Summer only.
548. **FIELD INTERNSHIP IN COUNSELING** 0-3 credits. Prerequisites: Psychology 578 and approval of the Director of Psychological Services. This provides for an academic year of college-supervised work in counseling. Arrangements must be made in cooperation with the school administration involved.
555. **ADVANCED CHILD PSYCHOLOGY** 3 credits. Prerequisite: Educational Psychology 355 or equivalent. A study of the most significant research and theory in the field of child development and behavior.

556. **PSYCHOLOGY OF ADOLESCENCE** 3 credits. Prerequisite: Educational Psychology 355 or equivalent. Advanced study of developmental characteristics, behavior problems, personal and social adjustments of children and youth, with implications for secondary education and guidance programs.
572. **INDIVIDUAL TESTING** 5 credits. Prerequisite: Psychology 373 or permission of the instructor. Open to senior psychology majors by permission of the instructor. Theory and principles underlying the construction of individual intelligence tests together with supervised practice in the administration of some of the most important of these tests.
573. **STATISTICAL INFERENCE FOR EDUCATION AND PSYCHOLOGY** 3 credits. Prerequisite: Psychology 373. Open to senior psychology majors by permission of the instructor. Advanced statistical methods with emphasis on the statistical inferences that may be drawn from the analysis of research data. Also offered as Education 575.
577. **ADVANCED APPRAISAL TECHNIQUES** 3-5 credits. Prerequisite: Psychology 572. Open to senior psychology majors by permission of the instructor. A consideration of approaches to measurement with special attention to value and limitations of objective and observational aptitude, interest, and personality measures. The student manipulates sample instruments under laboratory conditions.
578. **ADVANCED CLINICAL PRACTICUM** 3-5 credits. Prerequisite: Psychology 577 and permission. Diagnostic and interpretative work using a variety of techniques as a team member in a central and responsible role with several complete cases. Summer only.

Courses In Educational Psychology

355. **HUMAN GROWTH AND DEVELOPMENT** 4 credits. Prerequisites: Psychology 200 or 201 or 261, and Biology 104 or equivalent. Physical, social, and emotional growth and development from birth to adulthood. Emphasis is placed upon the implications of facts and principles for curriculum content and classroom procedures.
371. **EVALUATION IN THE PUBLIC SCHOOL** 3 credits. Prerequisite: junior status. Basic ideas and practices in evaluating pupil achievement. Emphasis in on how to construct instruments for best determining what a student has learned, how well he has achieved, and how much he has developed. The use of standardized tests is also considered.
431. **INTRODUCTION TO GUIDANCE AND PSYCHOLOGICAL SERVICES** 3 credits. Prerequisite: 15 hours of psychology and senior status. The roles of the teacher, principal, psychologist, counselor, and other specialists in an integrated program are discussed. Guidance and counselling techniques are examined. Professional problems and trends are studied.
451. **PRINCIPLES OF HUMAN LEARNING** 3 credits. Prerequisites: Education or Psychology 355 and Education 392. (This course and first student teaching may be taken concurrently.) This course is concerned with application of the psychological principles of learning to classroom teaching.
455. **PSYCHOLOGY FOR TEACHERS** 5 credits. Prerequisites: Education or Psychology 355 and Education 392. (This course and first student teaching may be taken concurrently.) This course is concerned with application of psychological principles to : (1) problems of personality formation and psychological adjustment, and (2) problems of classroom learning. (This course will be replaced by a combination of Psychology 261 and Psychology 451 after this year.)

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466. **THE BRIGHT AND GIFTED CHILD** 3 credits. Prerequisite: teaching experience or permission of the instructor. Identification procedures, curriculum, and teaching methods suited to the education of children with superior and special abilities.
471. **THE USE OF STANDARDIZED TESTS IN THE SCHOOL** 3 credits. Prerequisite: Education 371 or permission of instructor. A course designed to acquaint the classroom teacher, the administrator, and all special services personnel with the various standardized groups tests which are commonly used in the public schools. Emphasis is placed upon problems involved in the selection of tests, in their administration, and in the interpretation of norms.
535. **PRINCIPLES AND ORGANIZATION OF PSYCHOLOGICAL SERVICES** 3 credits. Prerequisite: Psychology 431. The philosophy underlying specialized psychological services for the schools and an examination of organizational patterns and operating practices. Summer only.
536. **FOUNDATIONS FOR PSYCHOLOGICAL SERVICES** 3 credits. Guiding principles for psychological work in the schools through the study of social conditions, learning theory, and personality theory as these are related to specialized techniques and procedures. Summer only.
551. **SEMINAR IN PUPIL ADJUSTMENT** 3 credits. Prerequisites: graduate status and teaching experience. Problems of personal and social adjustment in the teaching and learning situation. Students examine the principles of psychological adjustment in relation to the classroom. Attention is given to the evaluation of research with a view to its practical application.

INTERDEPARTMENTAL OFFERINGS in

SCIENCE

(General Science, Science Education, and Health Science)

General Science

Concentrations

MAJOR (for Elementary and Junior High School Teachers)

For advisement or approval, the student should consult the instructor of Physical Science 383. See Schedule of Classes.

In addition to the general education requirements in science, 45 credits selected under advisement to include:

Biological Science	15 to 20 credits
Physical Science	15 to 20 credits
Geological Science	5 to 15 credits
Science Education.....	a minimum of 6 credits
selected from Physical Science 382, 492, Biology 383, 493, Geology 384.	

Courses

405. **SCIENCE AND CIVILIZATION** 3 credits. Prerequisite: 30 credits of biological and/or physical science. Recommended for all science majors and required of those who have been excused from Physical Science 101 or Botany 104. A seminar in the nature, methods, and development of science and the role of science in society.
406. **THE DEVELOPMENT OF THE SCIENTIFIC THOUGHT** 5 credits. Nature and scope of science in terms of historical evolution. The student is provided opportunity to investigate the origin and growth of specific ideas, to examine critically the aims, methods, and modes of thought of selected scientists, to explore the philosophical implications or resulting ideas, and to interpret science as a social phenomenon.

Health Science

Concentration

MINOR: (recommended for Physical Education Majors).

Home Economics 210; Zoology 241, 243; Biology 447; Health Education 252, 301.

Five credits from: Biology 245, 371; Zoology 261.

Science Education

Courses

- 400-D. BIOLOGICAL SCIENCE** 5 credits. Selected biological principles and concepts to aid teachers in their understanding and teaching of science. The lecture is used to promote the understanding of the principles and concepts; the laboratory, to develop skills in problem solving and developing and handling biological materials. Summer only.
- 400-E. PHYSICAL SCIENCE** 5 credits. Selected physical science principles and concepts to aid teachers in their understanding of the sciences and their teaching of science. The lecture is used to promote the understanding of the principles and concepts, the laboratory to develop skills in problem solving and developing and handling physical science materials. Summer only.
- 431. EQUIPMENT CONSTRUCTION** 3 or 5 credits. Prerequisite: One year of college physics and permission of the instructor. For persons interested in physics teaching. Analysis of basic principles and concepts in physics and the construction of demonstration equipment which illustrates these principles. Opportunity is provided to learn the design, care, and adjustment of apparatus. Instruction in the use of construction tools is provided. Lectures, readings, laboratory and shop work are included.
- 460. SPECIAL PROJECTS IN SCIENCE FOR THE ELEMENTARY SCHOOL** 2 to 5 credits. Prerequisites: Consent of the instructor and General Education 102, Biology 104, and one course for the Elementary School, or teaching experience. This course is available to a few students who wish to undertake special projects under supervision.
- 490. SPECIAL PROJECT IN SCIENCE TEACHING IN THE JUNIOR AND SENIOR HIGH SCHOOLS** 2 to 5 credits. Permission of the instructor and Science Education 492 or 493. Special projects under supervision.
- 500. SPECIAL PROJECTS IN SCIENCE** 2 to 5 credits. Prerequisites: graduate standing and consent of the instructor. Special projects under supervision.
- 501. DEVELOPMENT OF A SCIENCE PROGRAM IN THE PUBLIC SCHOOLS** 3 to 5 (500-1) credits. For the guidance of principals, superintendents, supervisors, and teachers interested in developing a comprehensive program of science for their respective school systems. Selection and organization of materials and experiences that will permit the child to develop in his mastery of skills, in his discovery of facts and principles of science, and in his formation and understanding of science projects.
- 580. SPECIAL PROBLEMS IN SCIENCE TEACHING IN THE ELEMENTARY SCHOOL** 2 to 5 credits. Prerequisites: teaching experience and consent of the instructor. The relationship of science experience to the program of the elementary school. The course provides opportunity for teachers to work with problems concerning content, utilization of community resources, materials of the environment, development of special areas for instruction, integration with other activities in the school program, and with organization of courses of study.
- 582. IMPROVEMENT OF SCIENCE INSTRUCTION IN THE ELEMENTARY SCHOOL** 2 to 5 credits. For teachers, consultants, and administrators. Current thinking and practice relative to the science program of the elementary school. Opportunities are provided for developing science programs for a particular school system and for reorganizing science instruction to improve the education of children.
- 590. SPECIAL PROJECTS IN SCIENCE TEACHING IN THE JUNIOR AND SENIOR HIGH SCHOOL** 2 to 5 credits. Prerequisite: Permission of the instructor and teaching experience. Special projects under supervision.

592. IMPROVEMENT OF SCIENCE INSTRUCTION IN THE JUNIOR AND SENIOR HIGH SCHOOL 2 to 5 credits. For teachers, consultants, and administrators. Current thinking and practice in the teaching of science at the junior and senior high school levels. Opportunities are provided for developing a science program to meet the needs and circumstances of a specific school situation.

INTERDEPARTMENTAL PROGRAMS in SOCIAL STUDIES EDUCATION

Concentration

(for the Junior High School Teacher)

Major:

For advisement or approval, students should consult the instructor of Social Studies Education 426. See Schedule of Classes.

In addition to the social studies course requirements in the program of general education, 45 credits should be selected as follows:

Required courses:

Courses	Credits
Geography 201	3
Geography 311, 313, 314, 315, or 316.....	5
History 203 and 204	10
Sociology-Anthropology 201	5
Social Studies Education 426.....	3
	26

Courses under advisement:

- a. The remaining 19 quarter hours necessary to complete the major will represent not less than two of the several fields in the area of the social studies and one of these two fields must not be history or geography. (The fields comprising the social studies are as follows: economics, geography, government, history, and sociology-anthropology.)
- b. The major must include not less than 15 upper division credits.

Courses

425. SOCIAL STUDIES FOR THE ELEMENTARY SCHOOL 3 credits. Special attention is given to the incorporation of social science concepts in the social studies program.
426. SOCIAL STUDIES FOR THE SECONDARY SCHOOL 3 credits. Choice and adaptation of materials of instruction to the junior and senior high school level.

DEPARTMENT of **SOCIOLOGY-
ANTHROPOLOGY**

Faculty

Associate Professors: Anastasio, Taylor (Chairman).

Assistant Professor: Mazur.

Instructors: Call, Serl, Spaulding.

Lecturer:

Teacher Education

Concentrations

FIELD MAJOR:

Anthropology 200, Sociology 201 or Anthropology 201, Sociology 375 or Anthropology 375.

Additional courses under departmental advisement to total 40 credits.

Note: Students intending to teach in the secondary schools must receive special departmental permission to major in sociology-anthropology.

FIELD MINOR:

Sociology 201 or Anthropology 201.

Additional courses under departmental advisement to total 20 credits.

Arts and Sciences

Concentrations

MAJOR:

Anthropology 200, Sociology 201 or Anthropology 201, Sociology 301, Sociology 375 or Anthropology 375, Sociology 490 or Anthropology 490.

Additional courses under advisement to total 50 credits of which 20 must be upper division.

Supporting courses: two selected from the following: Biological Science 371 or General Science 406; Psychology 440 or 453; Geology 211, Geology 316, History 458, Geography 435, Geography 470, Economics 403.

MINOR:

Anthropology 200, Sociology 201 or Anthropology 201.

Additional courses under departmental advisement to total 25 credits.

Just ran as 101 Soc in 58-59

Courses in Sociology

201. **CULTURE AND SOCIETY** 5 credits. Prerequisite: General Education 105 or permission of the instructor. Nature and growth of culture; a survey of the range and variety of culture phenomena including social organization, political institutions, religion, art, language and other topics. Also offered as Anthropology 201.
270. **INTRODUCTION TO RESEARCH METHODS** 3 credits. Prerequisite: Sociology-Anthropology 201 or Sociology 301. Nature of scientific inquiry; the development of social research; the basic methods and techniques of data-gathering, processing, and analysis. Also offered as Anthropology 270.
301. **THEORY OF SOCIAL GROUPS** 3 credits. Social organization of man: small groups, formal organizations, social institutions, and social processes. The course is intended primarily to serve as an introduction to the field of sociology for students who major in sociology-anthropology.
311. **WORLD POPULATION** 3 credits. Prerequisites: Sociology-Anthropology 201 or (411) Sociology 301. Growth, distribution, and composition of the population of the world, with emphasis on industrialized and underdeveloped countries.
346. **JUVENILE DELINQUENCY** 3 credits. Prerequisite: Sociology 201. Individual, family, and community factors in delinquency; programs for treating delinquents in schools, social agencies, juvenile courts, and correctional institutions; community organizations for the control of delinquency.
351. **THE FAMILY** 3 credits. Prerequisite: Sociology 201. The evolution of the family; the family as a social institution; the problems of the family today under conditions of rapid social change.
366. **THE COMMUNITY** 3 credits. Prerequisite: Sociology 201. Patterns of social life in representative communities and their influence on the individual.
375. **STATISTICAL METHODS** 5 credits. Prerequisite: Sociology-Anthropology 201, or Sociology 301. Introduction to statistical methods and their application to the research problems of sociology and anthropology. Also offered as Anthropology 375.
401. **SEMINAR** 3 credits. Prerequisite: permission of the instructor. Selected topics such as social stratification, sociology of education, comparative institutions. Specific topics are announced for each quarter.
412. **AMERICAN POPULATION** 3 credits. prerequisite: Sociology-Anthropology 201 or Sociology 301, Sociology 375; Sociology 411 recommended. The population of North America with particular emphasis on the United States: growth, distribution, and composition; social and economic implications of demographic trends.
431. **SOCIAL CHANGE** 3 credits. Prerequisite: Sociology 201. Social change in the United States (1900-1960); analysis of contemporary theories of culture change. The last section of the course is devoted to a consideration of the problems of prediction of future change. Also offered as Anthropology 431.
441. **PUBLIC OPINION** 3 credits. Prerequisites: Government 215 or Government 251, or Sociology 201 or Anthropology 201 or consent of the instructor. Factors involved in the formation of public opinion; propaganda analysis; agencies of mass impression; opinion measurement; and the role of leadership. Also offered as Government 441.
447. **RACIAL AND CULTURAL MINORITY GROUPS** 3 credits. Sociological and social-psychological aspects of the relationship among racial and cultural minority groups, especially in the United States.

465. **COMMUNITY STRUCTURE AND PROCESS** 3 credits. Prerequisites: permission of the instructor. The institutional, social and demographic structuring of communities analyzed in terms of social, historical, economic and political processes. Emphasis is on the institution of education as an agent in structure and change. Summer only.
470. **RESEARCH** 2-6 credits. Prerequisite: instructor's consent. For the student who wishes to investigate a problem of his choice through field or library research.
483. **SOCIAL CHANGE AND THE MORAL ORDER IN RECENT LITERATURE** 4 credits. Also offered as English 483 and Philosophy 483.
485. **READING AND DISCUSSION** 3 credits. Prerequisite: 15 hours in sociology-anthropology, or instructor's consent. Selected readings in major works in the fields of cultural anthropology and/or sociology. Discussion centers on a specific topic chosen for the quarter.
490. **SEMINAR IN SOCIAL THEORY** 3 credits. Selected problems in social theory with emphasis upon contemporary literature in the field. Also offered as Anthropology 490.

Courses in Anthropology

200. **HUMAN EVOLUTION AND PREHISTORY** 5 credits. The development of man; culture, origins and prehistory; criteria and theories of race and race classifications; race diffusion, contacts and problems.
201. **CULTURE AND SOCIETY** 5 credits. Prerequisite: General Education 105 or permission of the instructor. Nature and growth of culture; a survey of the range and variety of culture phenomena including social customs, social organization, political institutions, religion, art, language, and other topics. Also offered as Sociology 201.
260. **PEOPLES OF THE WORLD** 5 credits. Principal cultures and races of mankind. (360)
270. **INTRODUCTION TO RESEARCH METHODS** 3 credits. Prerequisite: Sociology-Anthropology 201 or Sociology 301. The nature of scientific theory; the development of social research; the basic methods and techniques of data-gathering, processing, and analysis. Also offered as Sociology 270.
361. **PEOPLES OF THE AMERICAS** 3 credits. Native Indian culture and native cultural areas in the New World.
362. **PEOPLES OF EURASIA** 3 credits. European and Asian racial and cultural distribution.
363. **PEOPLES OF AFRICA** 3 credits. Races and cultures of Africa: (a) Africa, south of the Sahara; (b) Africa, north of the Sahara.
375. **STATISTICAL METHODS** 5 credits. Prerequisite: Sociology-Anthropology 201, or Sociology 301. Statistical methods and their application to the research problems of sociology and anthropology. Also offered as Sociology 375.
401. **SEMINAR** 3 credits. Prerequisite: permission of the instructor. Selected topics such as culture and personality, theory of culture, history of anthropological theory. Specified topics for each quarter will be announced.
431. **SOCIAL CHANGE** 3 credits. Prerequisite: Sociology 201. A relatively detailed examination of social change in the United States (1900-1960) followed by an analysis of contemporary theories of culture change. The last section of the course is devoted to a consideration of the problems of predicting future change. Also offered as Sociology 431.

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448. **CULTURE CONTACT** 3 credits. Prerequisite: Sociology 201 and one of the following: Anthropology 360, 361, 362, 363. Social, economic, political, and administrative problems characteristic of cultures in contact, with particular emphasis on the processes of class cultural communication and ethnic relations.
462. **INDIANS OF THE NORTHWEST COAST** 3 credits. Tribal distributions, social organization and ecological adjustment with emphasis on the Indians of western Washington. Problems of Northwest Indian adjustment to the modern world.
470. **RESEARCH** 2-6 credits. Prerequisite: instructor's consent. For the student who wishes to investigate a problem of his choice through field or library research.
481. **APPLIED ANTHROPOLOGY** 3 credits. Prerequisite: Sociology 201 or Anthropology 201. Utilization of anthropological theory in the practical problems of government, industry, education, and social welfare; the administration of colonial and dependent peoples.
485. **READING AND CONFERENCE** 1-5 credits. Prerequisite: 15 hours in sociology-anthropology, or instructor's consent. Selected readings in the major works in the fields of cultural anthropology and/or sociology. Discussion centers on a specific topic chosen for the quarter.
486. **READING AND CONFERENCE IN PHYSICAL ANTHROPOLOGY AND ARCHAEOLOGY** 1-5 credits. Prerequisite: permission of the instructor. Selected reading in the major works on human paleontology or morphology or genetics, prehistory, and archaeological field techniques. The topic to be discussed in a given quarter will be determined by the professor.
490. **SEMINAR IN SOCIAL THEORY** 3 credits. Prerequisite: permission of the instructor. Selected problems in social theory with emphasis upon contemporary literature in the field. Also offered as Sociology 490.

DEPARTMENT of SPEECH

Faculty

Professor: Carlile, (Chairman).

Associate Professors: Brewster, Herbold, Schinske.

Assistant Professors: Carter, Flanders, Spolding, Wadleigh,

Instructors: Janes, Woldo.

Teacher Education

Concentrations

MAJOR AT THE ELEMENTARY LEVEL For Speech Therapists. Classroom teachers should complete a speech minor.)

Speech 201 or 204, 233, 350, 355, 6 credits. Chemical Practice in Speech Correction, 356, 430, 450, 453 plus additional credits selected with departmental advisement to total 40 credits. Education 492a must be completed in speech therapy working with a public school therapist. Education 462 and 472 are strongly recommended.

MINOR AT THE ELEMENTARY LEVEL:

Speech 201 or 204, 233, 355, 430 and 450, plus additional courses selected with departmental advisement to total 20 credits.

MAJOR AT THE SENIOR HIGH LEVEL:

Speech 130, 201, 204, 233, 236, 350, 355, 437, 450, 485, 3 credits course selected from 322, 323, 324, 423 plus additional courses selected with departmental advisement to total 40 credits.

MINOR AT THE JUNIOR-SENIOR HIGH LEVEL:

Option A: Speech 130, 201 or 204, 233, 236, 437, 450, 485.

Option B: Speech 201, 202, 204, 206, 305, 480, 485 plus additional courses selected with departmental advisement to total 20 credits.

Arts and Sciences

Concentrations

MAJOR:

Speech 201, 204 or 206, 233, 236, 340, 355, 437, 450, plus additional courses under advisement to total 40 credits.

MINOR:

Speech 204 or 206, 233, plus additional courses under advisement to total 20 credits.

Courses

1. **REMEDIAL SPEECH** No credit. Establishment of good habits of articulation and phonation through laboratory practice. This course may be elected by any student but is required of all teaching candidates adjudged deficient in speech or voice. Establishment of good speech and voice habits is required before admission is granted to student teaching.
100. **FUNDAMENTALS OF SPEECH** 3 credits. Functional approach to effective communication. The student is given opportunity to apply principles to practical problems of speech. The aim of the course is to develop good speech and to understand the use of it as a factor in human behavior.
105. **VOICE AND ARTICULATION IMPROVEMENT** 3 credits. Laboratory work designed to improve voice and articulation patterns.
130. **INTRODUCTION TO THE THEATRE** 3 credits. Appreciation of the art of theatre, cinema, and television. Special attention is given to play analysis, play production, and dramatic criticism. Required reading includes dramas ranging from the Greek to the contemporary theatre.
200. **SPEECH ANALYSIS** 3 credits. Prerequisites: Speech 100 and sophomore status. Analytical study of the speech process enabling the student to improve his own speech and to deal more intelligently with the refinement, rehabilitation and facilities, study of sounds, oral reading improvement, and group dynamics.
201. **EXTEMPORE SPEAKING** 3 credits. Theory and practice in an extemporaneous mode of speaking. Purposeful speaking, utilizing simulated real-life situations, with close attention to the organization of ideas and their adaptation to specific audiences and occasions. Attention is given to the speaker's needs through criticism, problems, and drill.
202. **PARLIAMENTARY LAW** 1 credit. Parliamentary principles and procedures. The course is designed to develop the skill in leading and participating in meetings where such procedures are used.
204. **DISCUSSION AND DEBATE** 3 credits. Forms of public discussion; debate theory and practice. The student has opportunity to apply problem solving techniques to topics of current interest. The aim of the course is to provide the student with a knowledge of and proficiency in the techniques of effective speaking and thinking on controversial issues.
- 206, 207, 208. **INTERCOLLEGIATE FORENSICS** 2 credits each. Impromptu, extempore and after-dinner speaking; oratory; debate; and other phases of forensics. Students may receive a maximum of 6 credits by participating in intercollegiate forensics.
- 230, 231, 232. **THE ACTED DRAMA** 1 to 3 credits each. Admission by tryout only. Participation in plays offered for public production. A maximum of 3 credits may be allowed for major work, with 1 or 2 credits for minor parts or responsibilities. A maximum total of 6 credits may be earned in these courses.
233. **ORAL INTERPRETATION** 3 credits. Practice in reading prose, poetry, and drama to help the student determine the logical and emotional meaning of a selection and project that meaning to his listeners. A portion of the time is spent in voice development.
236. **STAGECRAFT** 3 credits. Theory and practice of planning, building, and painting scenery. Department productions each quarter provide opportunity for laboratory experiences.
237. **STAGE LIGHTING** 2 credits. Concurrent enrollment in Speech 236 is recommended. Technical and artistic aspects of light and color as applied to stage productions. Department productions each quarter provide opportunity for laboratory experience.

238. **STAGE MAKE-UP** 1 credit. For students working in drama, music, dance, and other activities involving stage production. Theory and practice of the actual application of make-up.
281. **SHAKESPEARE: EARLIER COMEDIES** 3 credits. Also offered as English 281.
282. **SHAKESPEARE: HISTORICAL PLAYS—ENGLISH AND ROMAN** 3 credits. Also offered as English 282.
283. **SHAKESPEARE: TRAGEDIES AND LAST COMEDIES** 3 credits. Also offered as English 283.
302. **ADVANCED PARLIAMENTARY LAW** 1 credit. Prerequisite: Speech 202. An extension and more technical development of Speech 202.
305. **ADVANCED PUBLIC ADDRESS** 3 credits. Prerequisite: Speech 100. Traditional and modern theories of persuasion combined with application in speaking situations. Model speeches of great American orators are studied as background for contemporary criticism in the areas of composition, organization, proof, language, and delivery. Studio recording facilities permit detailed analysis of the student's speaking.
322. **DRAMA FROM 1660 TO 1850** 3 credits. European and American drama beginning with the Restoration. A critical study is made of the plays and their relationship to historical and sociological events. Also offered as English 322.
323. **MODERN DRAMA** 3 credits. Ibsen and Strindberg as the founders of the modern drama. Selected plays of the early twentieth century playwrights are included. Also offered as English 323.
324. **MODERN AMERICAN DRAMA** 3 credits. Plays, playwrights, and related movements of artists of the American theater, beginning with O'Neill and concluding with playwrights of the present. Also offered as English 324.
336. **DESIGN FOR THE STAGE** 3 credits. Prerequisite: Speech 236. Advanced study of the physical theatre with emphasis on creative stage and lighting design for various types of theatres and productions.
337. **ACTING** 3 credits. Prerequisite: Speech 233 or consent of the instructor. Interpretation and action on the stage. The basic aim of the course is to develop freedom of action and variety of voice and to apply the basic techniques of acting.
338. **COSTUMING** 3 credits. The history of costume and its adaptation to the needs and limitations of the stage. Students have opportunity to do laboratory work on dramatic production.
340. **RADIO SPEECH** 3 credits. Prerequisite: Speech 100. Introduction to the field of radio broadcasting; discussion of and practice in the technical skills involved in producing a radio broadcast. Special emphasis is placed on pronunciation, inflection, and general voice development. Practice in the writing of radio script and continuity is offered. Students participate in regularly scheduled broadcasts.
341. **RADIO AND TELEVISION BROADCASTING** 3 credits. Prerequisite: Speech 340 or consent of the instructor. Advanced techniques of radio production and direction, with introductory treatment of television. Program preparation, direction, and evaluation, in both commercial and educational broadcasting fields, are included.
350. **SPEECH SCIENCE** 3 credits. Prerequisite Speech 200. The speech and hearing mechanisms, the physical aspects of speech, and the sounds of language. This course serves as both background and supplement to work done in the field of speech correction.

355. **INTRODUCTION TO SPEECH CORRECTION** 3 credits. Prerequisite: Speech 200 or equivalent. Speech disorders and defects including identification, classification, diagnosis, and fundamentals of therapy. The course deals with (a) psychological and physiological nature of deviant speech; (b) development by the classroom teacher and the beginning therapist of skills instrumental in recognizing and analyzing speech handicaps and in undertaking basic therapy. Opportunity to observe a variety of clinical cases is provided. Enrollment may be concurrent with Speech 357.
356. **ARTICULATION AND VOICE DISORDERS AND DEFECTS** 3 credits. Prerequisite: Speech 355 or consent of the instructor. Symptomatology, etiology, and therapy appropriate for articulation and voice deviation. Major attention is given in this course to (a) identification and differential diagnosis of children and adults with sound substitutions, distortions, omissions, and additions; (b) analysis of abnormal pitch, quality and intensity voice involvements; (c) conduction articulation and voice tests and inventories, with interpretation of results; (d) examination of functional, organic, and psychogenic causes of disorders and defects. Consideration is given to principles of treatment and techniques of therapy. Numerous cases are available for observation in class and clinic. Concurrent enrollment in Speech 357 is recommended.
- 357, 358, 359. **CLINICAL PRACTICE IN SPEECH CORRECTION** 2 credits each. Prerequisite or concurrent enrollment: Speech 355 or Speech 356. Laboratory and supervised clinical practicum dealing with the instruments, materials, methods, and techniques applicable in therapy for the more prevalent voice and articulation cases—chiefly, infantile perseveration, lisping, lalling, and delayed speech.
384. **PROGRAM MATERIALS FOR THE PUBLIC SCHOOL** 2 credits. Materials, organization, and production of assembly programs in the elementary and secondary schools.
400. **SPECIAL PROBLEMS** 1-3 credits. Prerequisite: consent of the instructor. Investigation, with consultation, of special problems in the fields of speech.
404. **DRAMA IN THE SECONDARY SCHOOL** 2 credits. General dramaturgical background for teachers who supervise dramatic activities in the junior and senior high school.
423. **CONTEMPORARY EUROPEAN DRAMA** 3 credits. Selected plays from the post World War I dramatists to the present. Sartre, Pirandello, Giraudoux, Eliot, O'Casey, and Beckett are among the playwrights studied.
430. **CREATIVE DRAMATICS** 3 credits. For classroom teachers or creative dramatics opportunity to observe children's classes in creative dramatics. Emphasis is given to story selection, story telling, and story dramatization.
433. **CHILDREN'S THEATRE** 3 credits. Various aspects of presenting plays with children as well as plays for children. Play selection, play direction, and play production are given emphasis.
435. **THEATRE ARTS WORKSHOP** 3 credits. Lectures in play production and laboratory work in connection with the summer Fine Arts Festival Original Play Presentation.
437. **PLAY DIRECTION** 3 credits. Theory and practice of stage direction including play selection, casting, and blocking. A prompt book of one-act plays is required. The reading of selected plays is also an important part of the course.
438. **ADVANCED PLAY DIRECTION** 3 credits. Prerequisite: Speech 437. Continued study of the theory and practice of direction with special emphasis on working with the actor. Each student is required to select, cast, and direct a one-act play for public presentation.

442. **RADIO WRITING** 3 credits. Prerequisite: Speech 340 or 341. Writing continuity, adapting stories and plays for radio production; opportunity for production of scripts.
450. **PHONETICS** 3 credits. Sounds of the English language. Extensive use is made of the International Phonetic Alphabet in analyzing pronunciation patterns and regional dialects.
453. **INTRODUCTION TO HEARING** 3 credits. Prerequisites: Speech 355, 356. Structure and functioning of the auditory mechanism; a study of the acoustics of hearing; symptomatology and pathology of hearing disorders; diagnostic techniques of pure-tone and speech audiometry, clinical rehabilitation and classroom management including fundamentals of speech, reading, and auditory training for children and adults with hearing loss involvements. Observation of clinical cases is provided.
454. **DISORDERS OF RHYTHM** 3 credits. Prerequisites: Speech 355, 357. Stuttering, cluttering, and related disorders. Consideration is given to the nature, classifications, and characteristics of stuttering. Theories of etiology are evaluated with emphasis on neurologic, physiologic, semantogenic, and psychogenic dimensions. Principles of therapy and techniques in clinical procedures and classroom treatments are explored. Observation of primary and secondary stutters is a part of the course.
455. **THE SPEECH CLINIC** 3 credits. Prerequisites: Speech 355, 357. Diagnostic instruments, methods, materials, procedures, and techniques used in a clinical speech program. Attention is given to such matters as organizing a new speech clinic; integrating as a new clinician into an established program; establishing and maintaining favorable relationship with classroom teachers, administrators, parents, and public; ethics of practice and principles of professional growth and conduct.
456. **ADVANCED SPEECH CORRECTION** 3 credits. Prerequisites: Speech 355, 357. Complex neuropathologies and organic pathologies of speech, primarily dysarthric, dysphasic, and dysphonic involvements. Emphasis is placed on symptoms, etiology, and therapy for cerebral palsy, asphasic and cleft palate cases. Laryngectomy and laryngo-fissure problems are considered. A variety of cases is provided for observation.
- 457, 458, 459. **ADVANCED CLINICAL PRACTICE IN SPEECH CORRECTION** 2 credits each. Prerequisites: Speech 357 or 358 or 359 plus a minimum of 6 additional credits in the field. Laboratory and supervised clinical practicum dealing with the instruments, materials, methods, and techniques applicable in therapy for more complex cases in voice, articulation, rhythm or symbolization—chiefly, stuttering, cleft palate, aphasia, cerebral palsy, and hard of hearing.
480. **THE HISTORY AND CRITICISM OF AMERICAN PUBLIC ADDRESS** 3 credits. Historical and critical study of principal speakers and their relationship to American political, social, and intellectual life beginning with Jonathan Edwards and continuing to the present day speakers. Students electing this course should have some background in American History.
484. **TEACHING THE INTEGRATED SPEECH PROGRAM** 2 credits. For classroom teachers. Development, organization, and teaching of the combined communication skills of reading, writing, speaking, and listening.
485. **TEACHING SPEECH IN THE SENIOR HIGH SCHOOL** 3 credits. Prerequisite: 15 credits in Speech or consent of the instructor. Examination of materials and methods useful in teaching drama, interpretation, and public address. Students are given opportunity to work in their field of special interest.

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486. **RADIO AND TELEVISION IN THE SCHOOL** 2 credits. Prerequisite: 15 credits in Speech or consent of instructor. For teachers and school administrators. (1) Radio and television in the school curriculum; (2) utilization of radio and television in the classroom; (3) cultural and educational aspects of radio and television. Students have opportunity to work on individual problems.
487. **DISCUSSION TECHNIQUES FOR TEACHERS AND ADMINISTRATORS** 3 credits. Discussion as a means to better understanding and action in human affairs. Major aim of the course is to cultivate attitudes and skills which will aid teachers and school administrators to engage in and lead discussions with greater competency.
488. **PUBLIC SPEAKING FOR TEACHERS AND ADMINISTRATORS** 3 credits. Advanced public speaking designed to develop additional skill in meeting speech situations in the field of education. Emphasis is on delivery, composition, audience analysis, and interests.
489. **EDUCATIONAL TELEVISION WORKSHOP** 5 credits. Laboratory experience to develop skills in utilizing television as an effective educational instrument.
500. **SPECIAL PROBLEMS** 1 to 3 credits. Prerequisite: graduate status and consent of the instructor. For advanced students who wish to investigate, with consultations, special problems in the fields of speech.
558. **HEARING REHABILITATION** 2 credits. Prerequisite: Speech 453 or consent of the instructor. Methods, procedures, and techniques of rehabilitating the aurally handicapped. The course provides practice in the measurement of hearing loss and the evaluation of hearing tests. Laboratory experience in speech reading and auditory training is provided.
590. **SPEECH CORRECTION FOR THE CLASSROOM TEACHER** 2 credits. Prerequisite: consent of the instructor. For teachers and school administrators. Diagnosis and correction of speech defects and disorders encountered in the classroom. Students have opportunity to observe clinical practice and to work on individual problems.

Summary of Enrollment

Resident

Summer Quarter, 1960.....	1794
Fall, Winter, Spring, 1960-61.....	3430
(minus duplicated names)	
Total	5224
Correspondence	503
Evening	849
Extension	484
TOTAL ENROLLMENT	7060

Campus School

Kindergarten through sixth grade, 1960-61	177
Summer Session, 1960	206
Total	383
Deductions for names duplicated	6
TOTAL ENROLLMENT, CAMPUS SCHOOL	377

Degrees and Certificates

Degrees granted from August, 1960, to June, 1961, inclusive:

Degree of Master of Education	42
Degree of Bachelor of Arts in Education	455
Degree of Bachelor of Arts	109
Total	606

Certificates issued from August, 1960, to June, 1961, inclusive:

Three-Year Elementary Certificate	23
Provisional General Certificate	416
Total	439

Recommended for certification to the State Superintendent of Public Instruction:

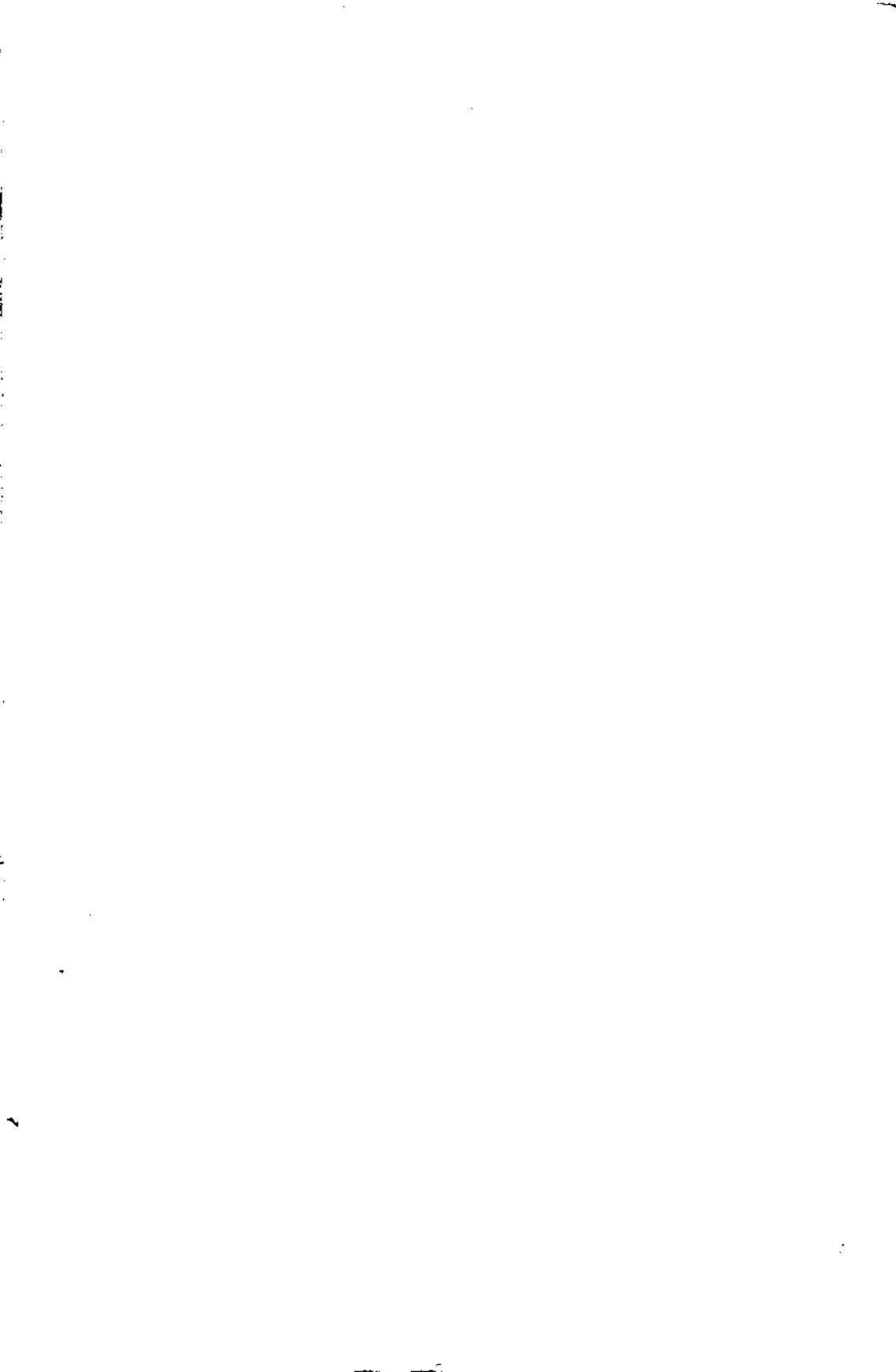
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The list to the left includes all headings under which courses are classified.

Those courses which bear the names of departments are set in bold type, and flush at the left.

Those courses which are listed under headings which are NOT the names of departments are set in light type, and are indented.