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WALLA WALLA
COLLEGE
1974-75

GRADUATE
BULLETIN





Walla Walla College

Graduate Bulletin 1974-75

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FOR INFORMATION —

Concerning application blanks, bulletins, academic and general information, student handbooks, viewbooks, etc., write to:

Mr. J. D. Victor Fitch, *Director*
Admissions and Records

Concerning financial arrangements and work opportunities, write to:

Mr. Richard Beck, *Director*
Student Finance

Concerning room reservations and dormitory information, write to:

Mr. M. E. Loewen, *Dean of Men*
Sittner Hall

or

Mrs. Betty Howard, *Dean of Women*
Conard Hall

Concerning matters of student affairs—off-campus housing, automobile registration, policies, etc., write to:

Mr. Donald D. Lake
Vice President for Student Affairs

WALLA WALLA COLLEGE
College Place, WA 99324

Phone: 509/527-2615

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WALLA WALLA COLLEGE ACADEMIC CALENDAR, 1974-1975

AUTUMN QUARTER

September 20, 22 Registration
September 23, Monday, 7:30 a.m. Instruction Begins
October 7, Monday Last day to add a course
October 28 Graduate Record Examinations
November 27, 12:30 p.m. - December 2, 10:00 p.m. Thanksgiving Recess
November 24 - November 27 Registration for Winter Quarter
December 12, 1:30 p.m. Quarter Ends
December 12 - January 6, 10:00 p.m. Christmas Recess

WINTER QUARTER

January 6, 1:00-5:00 p.m. Registration of New Students
January 7, Tuesday, 7:30 a.m. Instruction Begins
January 21, Tuesday Last day to add a course
January 20 Graduate Record Examinations
March 2 - March 7, 12:00 noon Registration for Spring Quarter
March 14 Last day to file master's degree order form
March 20, 1:30 p.m. Quarter Ends
March 21 - March 25, 10:00 p.m. Spring Recess

SPRING QUARTER

March 26, 27 Registration of New Students
March 26, Wednesday, 7:30 a.m. Instruction Begins
April 9, Wednesday Last day to add a course
May 25 Last day to complete final master's examinations
June 6 Consecration
June 7 Baccalaureate
June 8 Commencement

SUMMER SCHOOL, 1975

June 17 - August 8 Summer Session
June 18 Last day to file master's degree order form
June 23 Graduate Record Examinations
July 27 Last day to complete final master's examinations
August 10 Commencement

BOARD OF TRUSTEES

E. R. Walde, *Chairman*
R. L. Reynolds, *Secretary*

F. M. Beavon
F. W. Bieber
M. J. Blair
W. D. Blehm
Margaret Brown
J. E. Chase
L. W. Crooker
R. D. Fearing
L. C. Havstad

C. W. Jorgensen
D. M. MacIvor
B. F. McAdoo, Jr.
O. L. McComas
C. J. Nagele
Dorothy Patchett
L. L. Reile
R. C. Remboldt
T. W. Walters

ADMINISTRATION

Robert L. Reynolds, Ph.D., *President*
R. Dale McCune, Ed.D., *Vice President for Academic Affairs*
Vernon H. Siver, B.A., *Vice President for Financial Affairs*
Donald D. Lake, M.A., *Vice President for Student Affairs*
Donald O. Eichner, Ph.D., *Vice President for Development and Public Relations*

Gordon S. Balharrie, B.Div., *Dean, School of Theology*
Charles V. Bell, Ph.D., *Dean, School of Engineering*
J. D. V. Fitch, M.Ed., *Director of Admissions and Records*
Lois Hellie, B.A., *Chief Accountant*
Betty Ann Howard, B.S., *Dean of Women*
Wynelle J. Huff, M.S., *Dean, School of Nursing*
Robert H. Kooreny, M.A., *Director of Development*
Maynard E. Loewen, B.A., *Dean of Men*
Elwood L. Mabley, M.S.L.S., *Director of the Library*
Gerald F. Miller, M.Div., *Chaplain*
Orpha Osborne, B.A., *Associate Director of Records*
Donald W. Rigby, Ph.D., *Dean of Graduate Studies*
N. Clifford Sorensen, Ed.D., *Director of Summer Session*

ASSOCIATES IN ADMINISTRATION

Kathryn Andrews, B.A., *Assistant Director of Records*
Richard A. Beck, B.A., *Director, Student Finance*
Jimmie D. Losey, M.D., *College Physician*
Robert L. Noel, M.S., *Coordinator, Data Processing*

FACULTY COMMITTEES

ACADEMIC STANDARDS, R. D. McCune, *Chairman*

G. S. Balharrie	P. W. Joice
J. D. V. Fitch	Orpha Osborne
R. Heisler	N. C. Sorensen
Wynelle Huff	

FACULTY SENATE, R. L. Reynolds, *Chairman*

R. D. McCune	N. Moore
J. D. V. Fitch	Orpha Osborne
L. E. Glaim	V. H. Siver
R. Heisler	W. A. Soper
L. M. Lewis	All department chairmen
Anne Lindt	or their designates

GRADUATE COUNCIL, D. W. Rigby, *Chairman*

D. L. Clayton	E. L. Liske
L. G. Dickson	R. D. McCune
Helen Evans	Orpha Osborne
J. D. V. Fitch	N. C. Sorensen
G. B. Hare	D. O. Wagner

LIBRARY, R. D. McCune, *Chairman*

R. D. Blaich	E. L. Mabley
E. J. Bursey	O. E. McNiel
D. L. Clayton	G. A. Wiss
R. G. W. Kappel	*Melissa Hamilton
N. C. Maberly	*Ron Woodard

STUDENT GRANTS AND SCHOLARSHIPS, R. A. Beck, *Chairman*

D. D. Lake	Orpha Osborne
R. D. McCune	

*Student members

THE FACULTY

BIOLOGY

Donald W. Rigby, *Professor of Biology* (1958)

B.A. 1950, Loma Linda University
M.A. 1956, Walla Walla College
Ph.D. 1967, Loma Linda University

Dale L. Clayton, *Associate Professor of Biology* (1969)

B.A. 1962, Andrews University
M.A. 1964, Loma Linda University
Ph.D. 1968, Michigan State University

Jack Dassenko, *Instructor in Agriculture* (1970)

B.S. 1950, Andrews University
M.S. 1951, University of Minnesota

Leal G. Dickson, *Assistant Professor of Biology* (1971)

B.A. 1962, Columbia Union College
M.S. 1969; Ph.D. 1971, University of Maryland

Lanny H. Fisk, *Assistant Professor of Biology* (1974)

B.A. 1971, Andrews University
Doctoral Candidate 1974, Loma Linda University

Albert E. Grable, *Associate Professor of Biology* (1963)

B.S. 1959, Loma Linda University
M.S. 1962; Ph.D. 1964, University of Minnesota

Lawrence R. McCloskey, *Assistant Professor of Biology* (1971)

B.A. 1961, Atlantic Union College
M.A. 1965; Ph.D. 1967, Duke University

Alfred E. Perry, *Associate Professor of Biology* (1969)

B.A. 1953; M.A. 1958, Walla Walla College
Ph.D. 1965, Oklahoma State University

EDUCATION AND PSYCHOLOGY

N. Clifford Sorensen, *Associate Professor of Education* (1972)

B.S. 1958; M.A. 1963, Walla Walla College
Ed.D. 1973, University of Southern California

Edna Holst Grove, *Associate Professor of Education* (1974)

B.S. 1963, Walla Walla College
M.Ed. 1964, Eastern Washington State College

Roy A. Hingley, *Assistant Professor of Education and Psychology* (1970)

B.Th. 1962, Canadian Union College
B.Div. 1965; M.A. 1965, Andrews University
M.A. 1968, Arizona State University

- Jeanne Lewis, *Instructor in Education and Home Economics* (1973)
 B.A. 1965, Andrews University
 M.A. 1974, Montana State University
- Norman C. Maberly, *Professor of Education and Psychology* (1966)
 B.Th. 1952, Walla Walla College
 M.A. 1954, Andrews University
 Ed.D. 1962, University of Southern California
- Harold T. Ochs, *Associate Professor of Education* (1969)
 B.A. 1950, Walla Walla College
 M.Ed. 1957, Eastern Washington State College
 Ed.D. 1972, University of Idaho
- Hollibert E. Phillips, *Associate Professor of Education and Psychology* (1970)
 B.A. 1960, University of London
 M.A. 1964, Andrews University
 Ed.D. 1970, Boston University
- Jean M. Prest, *Assistant Professor of Education* (1973)
 B.S. 1968, Atlantic Union College
 M.Ed., 1974, Walla Walla College
- Vernon W. Shafer, *Lecturer in Psychology* (1973)
 B.Th. 1949, Walla Walla College
 M.S. 1953, University of Southern California
 Ph.D. 1958, Ohio State University
- Dale O. Wagner, *Associate Professor of Education and Psychology* (1966)
 B.A. 1952, Walla Walla College
 Ed.M. 1958, Eastern Washington State College
 Ed.D. 1973, University of Idaho

SUPPORTING DEPARTMENTS, CHAIRMEN

- Claude C. Barnett, *Professor of Physics* (1957)
 B.S. 1952, Walla Walla College
 M.S. 1956, State College of Washington
 Ph.D. 1960, Washington State University
- Charles V. Bell, *Associate Professor of Engineering* (1972)
 B.S. 1956, Mississippi State University
 M.S. 1957; Ph.D. 1960, Stanford University
- George L. Caviness, *Professor of Modern Languages* (1971)
 B.A. 1937, Pacific Union College
 M.A. 1939, University of California at Berkeley
 Ph.D. 1947, Ohio State University
- C. Loren Dickinson, *Professor of Communications* (1962)
 B.A. 1957, Union College
 M.A. 1960, University of Nebraska
 Ph.D. 1968, University of Denver
- Helen Ward Evans, *Professor of English* (1955)
 B.A. 1949, Walla Walla College
 M.A. 1955; Ph.D. 1965, Stanford University

- Gordon B. Hare, *Professor of Mathematics* (1957)
 B.A. 1951, Columbia Union College
 M.S. 1954; Ph.D. 1964, University of Colorado
- Robert A. Henderson, *Professor of History* (1967)
 B.A. 1962, Walla Walla College
 Ph.D. 1967, Washington State University
- Paul W. Joice, *Professor of Business* (1971)
 B.S. 1949, Union College
 M.B.A. 1953, University of Denver
 Ed.D. 1962, University of Nebraska
- Carl T. Jones, *Professor of Chemistry* (1953)
 B.A. 1933, Columbia Union College
 M.S. 1939, Catholic University of America
 Ph.D. 1959, Oregon State College
- Lee Loewen, *Assistant Professor of Office Administration* (1974)
 B.S. 1947, Union College
 M.Ed. 1968, Walla Walla College
- Elwood L. Mabley, *Associate Professor of Library Science* (1968)
 B.A. 1948, Walla Walla College
 M.S.L.S. 1959, University of Southern California
- *Kenneth R. MacKintosh, *Professor of Art* (1961)
 B.F.A. 1959; M.F.A. 1961, Otis Art Institute of Los Angeles County
- Calvin L. Trautwein, *Professor of Industrial
 Education and Technology* (1951)
 B.A. 1945, Loma Linda University
 B.S. 1950, Pacific Union College
 Ed.M. 1955, Oregon State College
 Ed.D. 1962, Colorado State College
- Melvin K. West, *Professor of Music* (1959)
 A.B. 1952, Andrews University
 M.Mus. 1955, Redlands University
 Mus.A.D. 1959, Boston University
- Engene S. Winter, *Professor of Physical Education* (1946)
 B.A. 1941, Walla Walla College
 M.S. 1948, State College of Washington
 Ph.D. 1963, University of Oregon
- Evelynne F. Wright, *Professor of Home Economics* (1945)
 B.A. 1941, Pacific Union College
 M.S. 1953, Oregon State College

*On leave

GENERAL INFORMATION

Walla Walla College is a Christian institution of higher learning operated by the Seventh-day Adventist Church.

The College is located in the City of College Place in the historic, fertile Walla Walla valley of southeastern Washington. The old Oregon Trail near the campus leads to the site of the old mission which was directed by Marcus Whitman from 1836 to 1847, and which has been reconstructed by the federal government at the Whitman Mission. The scenic Blue Mountains to the east are but a few minutes' drive from the campus and offer unusual opportunities for recreation and relaxation.

The principal objectives of the College are the fostering of an intelligent understanding and devotion to Christian ideals, loyalty to God and service to humanity, and the offering of an educational experience encouraging the formation of character marked by a full, harmonious development of the intellectual, physical and spiritual powers.

The seventh-day sabbath is observed at Walla Walla College from sunset Friday to sunset Saturday. No instructional activities are conducted during these hours.

ACCREDITATION

The College is accredited by the Northwest Association of Secondary and Higher Schools, the Association of Seventh-day Adventist Colleges and Secondary Schools, the Washington State Board of Education and is a member of the American Association of Colleges for Teacher Education, Association of American Colleges and the American Council on Education National Commission on Accreditation.

DEGREES OFFERED

The College offers courses of study leading to the Master of Arts (M.A.), Master of Education (M.Ed.) and Master of Science (M.S.) degrees. The M.A. and M.S. degrees are thesis programs and the M.Ed. is a nonthesis program.

ADMINISTRATION

The master's degree programs are directed and supervised by the Graduate Council, which is the legislative body responsible for the formulation of all graduate academic policies and curricula.

GRADING SYSTEM

The following system of grades and grade-point values is used in graduate studies:

- A - 4 grade points per credit
- B - 3
- C - 2
- D - 1
- F - 0

GRADUATE FACILITIES

Life Sciences Complex

The Department of Biology facilities in the Life Sciences Complex, completed in 1967, include staff and graduate student offices, classrooms and teaching laboratories, controlled environment rooms and chambers, radioisotope laboratory, animal and greenhouse complexes, photographic darkroom, museum and a shop.

Marine Biological Station

Additional Department of Biology facilities occupy 40 acres of beach and timberland at Rosario Beach adjoining Deception Pass State Park, Anacortes, Washington. The physical plant includes four laboratory buildings, a cafeteria, an assembly hall, shops and 29 cabins for student and staff housing.

Smith Hall

The Department of Education is housed in a modern, air-conditioned, three-story building. Facilities include offices for staff and graduate assistants, laboratories for testing, psychology and audiovisual productions, observation rooms and an audiovisual and instructional materials center containing workrooms, a photographic darkroom, an offset pressroom and a closed circuit television center.

Library

The College Library is a vital part of the educational program at Walla Walla College. The main library building was completed in 1944 and remodeled in 1964. Reading room accommodations, the open-shelf system, seminar and conference rooms, and a modern, comfortable, periodical room contribute to the study and enjoyment of books and journals. Microfilm and microcard readers make microfilms of scholarly material accessible. The curriculum library contains a large selection of textbooks, children's literature books, a collection of over 3,000 mounted pictures, filmstrips, tapes and phonorecords. The combined libraries contain in excess of 120,000 volumes. An average of 5,600 volumes is accessioned annually. There are about 900 current periodicals received regularly. Resources in other libraries are available to students and faculty members through the library's membership in the Pacific Northwest Bibliographic Center which serves as a clearinghouse for interlibrary loans.

FINANCIAL INFORMATION

Payments Required to Register

An advance payment of \$400 plus any balance due from a previous quarter shall be paid at the time of registration. Part-time students shall pay the full tuition charge in advance if less than \$400.

Tuition

1 - 12 credits — \$53 per credit

The tuition includes all laboratory fees and rentals (typewriter, piano and organ).

Regular tuition is charged for auditing classes and triple tuition is charged for individual tutoring.

General Fee: A general fee of \$10 per quarter is charged students registered for six or more credits which provides student association membership, ID card and a lyceum ticket.

Special Fees

Degree, Master's	\$25
Degree, Master's <i>in absentia</i>	35

Refunds

A student withdrawing from classes during the quarter will receive the following tuition refunds:

- 90% during first week of quarter
- 75% between first and third weeks
- 50% between third and sixth weeks
- No tuition refunded after sixth week

Statements

Statements will be issued each month giving an account for the previous month. Tuition and room rent for the quarter will be charged in advance at the beginning of each quarter. Actual food service charges are billed at the close of each month. Village students may obtain their statements from the cashier in the accounting office.

It is expected that statements will be paid within ten days from time of mailing. The College operates on a cash basis and is dependent upon prompt payment of accounts.

Remittances

Checks, drafts and money orders should be made payable to Walla Walla College and should be sent to Walla Walla College Accounting Office, College Place, Washington 99324.

Student Health Service

The clinical facilities and 12 beds of the health service are available at reasonable charges to graduate students requiring treatment or minor hospitalization. Prescriptions and other medicines are available at special prices. In case of serious illness or surgery, the Walla Walla General Hospital provides complete service to students. Financial arrangements must be made directly with the hospital.

Release of Transcripts or Degrees

By action of the board of trustees of the College, a degree or transcript of credit may not be released until the student's account is paid in full.

To expedite the release of transcripts, diplomas and other legal documents, the student should send a *money order* or *certified check* to cover the balance of his account when requesting transcripts, et cetera.

Loans

The following loan funds are recommended and applications may be obtained from the Student Finance Office.

Federally Insured Loan. Many banks are offering Federally Insured Loans to college students. These are long-term, low interest loans that need not be repaid until the student completes his course of study. To obtain an interest-subsidized loan, dependent students must submit a Parents' Confidential Statement (PCS); independent students must submit a Student Financial Statements (SFS). Consult the loan officer of your bank for additional information.

National Direct Student Loan. The National Direct Student Loan is made available through the United States Department of Health, Education and Welfare and Walla Walla College. To qualify, the students must have financial need as evidenced by submission of a Parents' Confidential Statement (PCS). Priority in awarding this aid is given to students with the greatest financial needs. Repayments begin after the applicant's student status terminates.

Oregon State Student Loan. Under this plan Oregon State residents may borrow from their hometown bank if they are accepted for enrollment or are enrolled in good standing and carrying at least a half-time course of study. To obtain an interest-subsidized loan, dependent students must submit a Parents' Confidential Statement (PCS); independent students must submit a Student Financial Statement (SFS).

Graduate Assistantships

A limited number of graduate assistantships are available to provide students with an opportunity for professional experiences in their chosen fields of specialization or in activities that may be valuable in preparing them more fully for their future occupational roles.

Assistantships are open to both men and women with evidence of sufficient maturity and potential to benefit from the program. Applications will be considered from prospective graduate students, postgraduates and those already admitted as regular graduate students. The stipends are awarded for periods up to 12 months, plus full remission of tuition and fees for approved courses during the period of the assistantship.

Duties of an assistant may include participation in research, instructional and guidance services, and professional activities. Application forms for graduate assistantships may be obtained by writing directly to the chairman of the Department of Biology or to the chairman of the Department of Education and Psychology. Applications must be submitted before April 15.

GRADUATE PROGRAM

Master's degree programs are offered in the Department of Biology, and in the Department of Education and Psychology. Graduate study is planned in reference to the student's experience, future objectives, personal qualifications and previous academic preparation. The importance of careful planning and close cooperation between the student and his assigned adviser is emphasized.

OBJECTIVES OF THE GRADUATE PROGRAM

The program provides an atmosphere which stimulates intellectual curiosity and independent thinking. It strives to develop an appreciation of the value of research and an acquaintance with basic research techniques. It endeavors to strengthen the professional competence of the individual in his area of specialization.

ADMISSION TO GRADUATE STUDY

Applicants for admission to graduate study shall have been graduated from a recognized four-year college or university and should have completed a basic background of undergraduate work in the proposed field of graduate study. Applicants without such a background should expect to make up deficiencies.

The applicant must file completed graduate application forms and two official transcripts of all work taken on the collegiate level with the Associate Director of Records of the College at least three months prior to the quarter in which graduate study is to commence. Failure to do so may

result in delay in admission and registration. All forms and transcripts submitted for admission become the property of the College and are not returned. Admission forms are available from the Admissions Secretary.

Eligibility for admission as a graduate student is determined by the Graduate Council of the College upon the recommendation of the Biology or Education and Psychology departments.

Admission Requirements for the Master's Degree Program

In addition to an acceptable baccalaureate degree, applicants for admission to a graduate degree program must have the following:

1. Satisfactory scores on the *Graduate Record Examinations* or on other tests approved by the Graduate Council.

Applicants in biology must have taken the *Graduate Record Examination: Aptitude Tests* and *Advanced Test in Biology*. The results of these examinations are to be submitted with the application for admission.

Applicants in education are encouraged to submit examination results with the application for admission; these are required before advancement to candidacy can be considered. It is strongly recommended that education students take the *Graduate Record Examination: Aptitude Tests* and *Advanced Test in Education* before making application for admission or during the quarter in which graduate study is first begun.

2. A minimum cumulative grade-point average of 2.75 on either the last 96 credits toward the baccalaureate degree or on the total undergraduate program, whichever is higher.

An applicant whose undergraduate grade-point average is below 2.75 may be admitted if there is other evidence of ability to pursue the graduate degree. Such evidence may include one or more of the following: performance on the Graduate Record Examinations, strong professional recommendations, postgraduate work at a recognized institution, experience in areas related to the desired graduate specialization, or other criteria established by the departments concerned.

A student who meets the requirements for admission to the master's degree program but who registers only as a postgraduate has no assurance that credits earned will later apply toward the master's degree.

Admission Requirements for the Nondegree Program

Graduates of an accredited college or university with a cumulative undergraduate GPA of 2.00 may be admitted as postgraduate students to take courses toward provisional and standard certification, special credentials or additional coursework. These credits may not apply to a master's degree.

Graduate Credit for Seniors

Seniors whose programs for graduation have been approved and who otherwise meet the admission requirements of the graduate division may be permitted to take graduate courses if their programs will allow it.

GENERAL DEGREE REQUIREMENTS

Responsibilities of the Student

The graduate student is responsible for a knowledge of all regulations and procedures as published in this bulletin. The student must assume the initiative in such matters as arranging for required tests and examinations, securing approval of his program of study, and following all procedures in their proper sequence. Failure to do so may result in unnecessary delay or interruption of graduate study.

Residence and Time Requirements

A minimum of 45 quarter credits is required, at least 33 of which must be earned while in residence.

Credits older than six calendar years usually are not used to satisfy degree requirements. However, a student may submit a request to Graduate Council for validation of an outdated course if its content is comparable to a current course and if the student is knowledgeable in it. These judgments shall be made by persons with expertise in the respective disciplines.

Course Requirements and Scholarship

The completion of a minimum of 45 quarter credits in approved graduate courses with a cumulative grade-point average of at least 3.00 is required. Grades of all courses on the graduate program excluding deficiencies will be computed in the grade-point average.

Courses numbered 500 or above are primarily for graduate students. A minimum of 24 credits must be earned in courses numbered 500 or above for the Master of Arts and Science degrees. A minimum of 30 credits is required in courses numbered 400 or above for the Master of Education degree. Courses numbered 400 to 499 are open to both undergraduate and graduate students. Courses numbered 350-399 may be included in the graduate program on approval of the Graduate Council.

Departmental Requirements

Candidates for a master's degree must also satisfy additional departmental requirements as listed in this bulletin under the section Departments of Instruction.

Second Master's Degree

The second master's degree requires a minimum of 30 additional quarter credits with approval of the Graduate Council.

Course Load

The normal load is 12 credits per quarter. Any course load above this amount must be approved by the Graduate Council.

Changes in Registration

Students withdrawing from college or individual courses must file an official drop voucher with the Records Office. Withdrawal slips must be signed by the adviser and the instructor involved. The final date for dropping a class is the Wednesday of the week prior to final examinations. Students doing passing work prior to withdrawal will receive a W (withdrawal). Students withdrawing from all classes during the quarter will receive W's.

Transfer of Graduate Credit

A maximum of 12 quarter credits of graduate work taken at other recognized institutions may be approved for transfer toward the master's degree. A GPA of 3.00 must be maintained on all coursework taken in residence. The transfer credits may be by extension if acceptable toward the master's degree at the school offering the extension work. It is the responsibility of the student to provide such documentation. Correspondence credit or credit by examination is not accepted.

Bulletin

The student's degree candidacy must be based on the graduate bulletin in effect at the time the proposed program for graduate study is approved by the Graduate Council.

PROGRAM OF STUDY

Prior to registering for the first quarter of study, all students admitted for a master's degree program must consult with the chairman of their department for assistance in selecting courses. An adviser and/or advisory committee will subsequently be appointed to guide the student in planning a program of study to complete the degree. All course selection and program changes must be made in conference with the adviser, and with approval of the Graduate Council.

Toward the end of the quarter in which the student is about to complete his first 9-15 credit hours of approved graduate study (exclusive of deficiencies), application must be made for advancement to degree candidacy. Since a minimum of 30 credit hours should be earned after advancement to candidacy has been granted, any delay in filing this application may result in a loss of earned credits.

ADVANCEMENT TO DEGREE CANDIDACY

Admission to graduate study merely constitutes permission to register for course work. It does not imply candidacy.

A student may be advanced to master's degree candidacy by fulfilling the following conditions:

1. Arrange for the removal of any undergraduate deficiencies.
2. Candidates for master's degrees in education must submit their scores on the *Graduate Record Examination: Aptitude Tests and Advanced Test in Education* or on other tests approved by the Graduate Council.
3. Complete 9 to 15 credits of approved graduate study with a minimum grade-point average of 3.00. If grade points earned on these credits do not average 3.00, advancement to candidacy will not be approved.
4. Submit the "Application for Degree Candidacy and Proposed Program of Courses" form to the department chairman outlining a study program including courses completed and those yet to be completed in fulfillment of the requirements for the master's degree. This program must be considered for approval by the staff of the department concerned upon completion of 9 to 15 credit hours.
5. Secure approval of the proposed program by the Graduate Council. Approval of the program and advancement to master's degree candidacy will be officially acknowledged by a letter from the chairman of the Graduate Council.

Advancement to master's degree candidacy indicates that the Graduate Council and the department concerned encourage the candidate to complete the master's degree. The degree is granted only after successful completion of the approved program of studies within the regulations of the College.

Changes in Program

Changes in the proposed program may not be made without the prior approval of the department chairman, associate director of records and chairman of the Graduate Council.

THESIS REQUIREMENT

A thesis demonstrating ability to conduct research in a systematic and scholarly manner must be presented by candidates for the Master of Arts and Master of Science degrees. The thesis is planned with and approved by the student's advisory committee. Completion of the thesis must be in accordance with the requirements of each department.

Approved copies of the completed thesis are kept on permanent file in the college library and in the respective departments.

FINAL EXAMINATIONS

Master's degree candidates must pass a written and/or oral examination administered by an examining committee. The nature of further examination, if required, is to be determined by the examination committee. A representative of the Graduate Council, who is not a member of the candidate's advisory committee, attends each oral examination.

Examination Regulations

1. Examinations should be completed at least two weeks before commencement.
2. It is the candidate's responsibility to schedule his examination with the department chairman.
3. The examination is conducted by the chairman of the candidate's advisory committee. Success or failure in the examination is determined by the examination committee.
4. Questions in the examination will be based upon the candidate's thesis and/or areas of study.
5. The time allowed for the examination is ordinarily not more than two hours.
6. Any candidate who fails the examination may be granted only one opportunity by the examination committee to retake his final examination after a lapse of at least one quarter.

CONFERMENT OF DEGREE

The candidate must file in duplicate the order form for the master's degree with the Records Office prior to the beginning of the final quarter.

Students are required to participate in the graduation exercises. In special cases permission to receive the master's degree *in absentia* may be granted by the President of the College.

DEPARTMENTS OF INSTRUCTION

BIOLOGICAL SCIENCES

The Department of Biology offers a Master of Science degree in biology. Courses are offered in zoology and botany on the main campus and at the Marine Biological Station near Anacortes, Washington. The program of course work and research developed for each graduate student takes into account the future goals, present interests and academic background of the student. In addition to a basic course in Biology (zoology and botany), specific background courses, or their equivalents, should include genetics, development, physiology and ecology. An adequate preparation in chemistry (inorganic and organic), physics (general physics) and mathematics (algebra, trigonometry, some calculus) will complete the necessary foundation upon which an individualized graduate program may be built. There is sufficient flexibility to allow a student to propose a program of a more interdisciplinary nature if desired. Because of the spectrum of biological and interdisciplinary opportunities presented at the Marine Biological Station, all graduate students are expected to attend one summer term.

The specific objectives of the Department of Biology applicable to the graduate program are:

1. To increase the competence of secondary school teachers, especially those in the Seventh-day Adventist educational system.
2. To prepare students for positions in institutions of higher education by giving them a firm foundation for work toward the doctorate.
3. To provide a preparation for research careers.

BIOLOGICAL SCIENCES

- 401 PLANT PHYSIOLOGY** 4
A course designed to cover the principles of physiology of plants in general. One laboratory per week. Prerequisite: 360, 392.
- 403 ORNITHOLOGY** 4
A systematic study of native birds of North America, with emphasis on identification, migration, geographical distribution, habits and life histories. Two laboratories per week.
- 405 GENERAL ENTOMOLOGY** 4
A study of insect morphology, physiology, ecology and classification. One laboratory per week.
- 412 PLANT ANATOMY** 4
A study of the microscopic anatomy of plant tissues with emphasis on their origin and development. Primary attention will be devoted to the vascular plants. Recommended prerequisite: 360. One laboratory per week.
- 420 COMPARATIVE ANATOMY** 5
A study of the comparative anatomy of chordates with emphasis on the vertebrates. Dissection of the shark, mudpuppy, turtle, pigeon and cat are made in the laboratory. Two laboratories per week.
- 424 HERPETOLOGY** 4
A systematic study of amphibians and reptiles with emphasis on natural history and ecology. Two laboratories per week.
- 426 SYSTEMATIC BOTANY** 4
A study of the principles of plant classification, together with a systematic survey of vascular plants, with emphasis on natural history and ecology. Two laboratories per week.
- 429 LIMNOLOGY** 4
A study of the factors responsible for the presence and distribution of animals and plants in fresh waters. Field work includes trips to a number of lakes and streams for collection of living specimens as well as habitat analysis.
- 441 MICROTECHNIQUE** 3
A course designed to cover the important methods of making microscope slides. Two laboratories per week.
- 444 MAMMALOGY** 4
A systematic study of mammals with emphasis on natural history and ecology. Two laboratories per week.

BIOLOGICAL SCIENCES

- 446 GENERAL ECOLOGY** 4
A course designed to cover the basic principles of plant and animal ecology. Field trips to nearby areas illustrating these principles are part of the laboratory work. Two laboratories per week.
- 447 PARASITOLOGY** 5
A systematic study of the morphology, life cycle and host-parasite relationships of protozoan, helminth and arthropod parasites. Two laboratories per week.
- 449 VERTEBRATE HISTOLOGY** 4
The microscopic anatomy of vertebrate cells, tissues and organs including reference to their functions. Two laboratories per week.
- 451 INVERTEBRATE ZOOLOGY** 5
A study of the biology of the invertebrates with emphasis on their ecology, morphology and physiology. Two laboratories per week.
- 453 RESEARCH METHODS III** 2
Methods of writing the scientific paper, oral presentation of the paper and a discussion of the organization of the biological sciences for the communication of results of scientific research are included. Third quarter of a three-quarter sequence required of all majors.
- 462 ICHTHYOLOGY** 4
A systematic study of the fishes found in Puget Sound, with a survey of the fishes of other waters. (WWC Marine Biological Station)
- 463 MARINE BOTANY** 4
A systematic study of plants found in Puget Sound, with a survey of marine plants from other areas. (WWC Marine Biological Station)
- 464 ANIMAL BEHAVIOR** 4
A comparative study of the behavior of animals with emphasis on an experimental analysis of behavior. A research project will be required. (WWC Marine Biological Station)
- 465 BACTERIOLOGY** 5
A presentation of the basic principles necessary for an understanding of morphology and function of bacteria. Laboratory work, including unknowns, points out techniques employed in their study. Two laboratories per week.
- 467 BIOLOGICAL OCEANOGRAPHY** 4
A study of physical, chemical and geological effects on marine organisms. (WWC Marine Biological Station)

BIOLOGICAL SCIENCES

- 468 COMPARATIVE PHYSIOLOGY** 4
A comparative study of the physiology and life processes of animals with emphasis on invertebrates. Prerequisite: 392. (WWC Marine Biological Station)
- 470 BIOPHYSICS** 4
An introductory course emphasizing the physical aspects of living organisms studied by the experimental and conceptual methods of physics with application to marine life. (WWC Marine Biological Station)
- 474 MARINE INVERTEBRATES** 4
A study of the biology of selected groups of marine invertebrates. (WWC Marine Biological Station)
- 477, 478, 479 INDEPENDENT STUDY IN BIOLOGICAL SCIENCE** 1-3; 1-4
Directed study in an approved area. The student will be required to read widely on an assigned subject, follow regular research methods, and present a paper showing competence in and extent of his study. Open only to majors and minors. Permission from the chairman of the department required. One to three credits any quarter; maximum, three credits on the College Place campus. Students may register for up to four credits for research projects done at the WWC Marine Biological Station.
- 483 PHILOSOPHY OF ORIGINS AND SPECIATION** 3
The various theories on the origin and history of living organisms will be compared in light of present scientific knowledge in the areas of biochemistry, paleontology, morphology, geology, genetics and other related areas. For majors and minors only.
- 490 TECHNIQUES IN FIELD BIOLOGY** 1-6
A study of the techniques used in the collection and preservation of biological specimens for museum purposes. Emphasis is placed on the recording and preservation of ecological data obtained with the collections of specimens. The topic for a given year will depend on the instructor offering the course and credit will be given on the rate of one hour credit for each week spent working in the field.
- 495 COLLOQUIUM** 0
A departmental seminar offered each quarter in which current areas of research are presented by the staff and visiting lecturers. Required of all juniors, seniors and graduate students. No credit.
- 501 RESEARCH IN BIOLOGY** 2-4; 8
Individual work in a topic of original research carried out under the direction of one of the instructors. Two to four credits per quarter; maximum, eight credits.

BIOLOGICAL SCIENCES

- 503 GENETICS AND SPECIATION** 3
A study of the nature and function of the genetic material as it relates to population and species variability and change. Prerequisite: 261.
- 506 MORPHOLOGY OF PLANTS** 4
An advanced study of the type forms of the divisions of the plant kingdom. One laboratory per week. Prerequisite: 360 or permission of the instructor.
- 508 PHYSIOLOGY OF THE ALGAE** 4
A comparative study of the physiology of representative members of the major algal groups. Collection and growth of pure cultures of single-celled forms and related metabolic processes, nutritional factors, light requirements, synchronization and growth will be emphasized. (WWC Marine Biological Station)
- 510 GRADUATE SEMINAR** 1; 5
Presentation of topics and discussion of current research in specific areas of biology. One credit any quarter; three credits required; maximum, five credits.
- 511 BIOSYSTEMATICS** 4
A study of the process of speciation and its relationship to currently used taxonomic methods and rules of nomenclature.
- 514 SYMBIOSIS** 4
A study of sharply defined associations between organisms. Selected examples of the viruses, bacteria, plants and animals are used to illustrate varying degrees of relationships. Prerequisite: Coursework in one group of animals *or* plants *or* microbes *or* parasitology. Chemistry courses through organic are highly recommended. Two laboratories per week.
- 518 SYSTEMATIC ENTOMOLOGY** 4
A study of the principles of classification of insects. Laboratory work emphasizes recognition of orders and families with special problems on the specific level. Recommended prerequisite: 405. Two laboratories per week.
- 521 PRINCIPLES OF ECONOMIC ENTOMOLOGY** 3
An evaluation of the various methods of controlling economically important species. Prerequisite: 405.
- 522 CELLULAR BIOLOGY** 5
Current knowledge and research in the areas of cell physiology, biochemical genetics, bacteriological genetics and radiation biology will be considered. Two laboratories per week. Prerequisite: 392, 393.

BIOLOGICAL SCIENCES

Reading Courses—A maximum of six credits may be selected from Reading Courses.

- 525 READINGS IN PHYSIOLOGY** 2; 4
Analysis of classical and current literature in the field by means of reports and conferences with staff. Two credits; maximum, four credits.
- 526 READINGS IN INVERTEBRATE ZOOLOGY** 2; 4
Analysis of classical and current literature in the field by means of reports and conferences with staff. Two credits; maximum, four credits.
- 527 READINGS IN ENTOMOLOGY** 2; 4
Analysis of classical and current literature in the field by means of reports and conferences with staff. Two credits; maximum, four credits.
- 528 READINGS IN ECOLOGY** 2; 4
Analysis of classical and current literature in the field by means of reports and conferences with staff. Two credits; maximum, four credits.
- 529 READINGS IN SYMBIOSIS** 2; 4
Analysis of classical and current literature in the field by means of reports and conferences with staff. Two credits; maximum, four credits.
- 530 READINGS IN BIOSYSTEMATICS** 2; 4
Analysis of classical and current literature in the field by means of reports and conferences with staff. Two credits; maximum, four credits.
- 545 THESIS** 8
Preparation of the master's dissertation after successfully carrying out original study with a suitable topic to be selected after consultation with the major professor.

DEPARTMENT OF EDUCATION AND PSYCHOLOGY

The Department of Education and Psychology offers two Master's degree programs—the Master of Arts, a thesis program, and the Master of Education, a non-thesis program. The programs permit professional enrichment through liberal course selection in the areas of Administration, Elementary Language Arts, Elementary Teaching, Guidance, Junior High Specialization, Library Resources and Secondary Content Areas.

In addition to the general objectives of the graduate program, the following are specific objectives of the Department of Education and Psychology:

1. To assist the student in developing a philosophy of education consistent with Christian ethics.
2. To develop an understanding of the relationship between teaching and the learning process.

MASTER OF ARTS

A prerequisite for the master of arts degree in education is the completion of a minimum of 27 undergraduate credits in education and/or psychology. Deficiencies may be removed after admission to graduate study but will not apply to the 45 credits minimum required for the graduate degree.

Basic Requirements

- 500 Graduate Seminar (1)
- 561 Methods of Research (3)
- 590 Thesis (8)

Area of Specialization (Choose one)

- Administration
- Curriculum and Instruction
- Educational Foundations (philosophy, history, psychology and sociology)
- Educational Psychology (developmental and learning psychology, measurement and statistics)
- Guidance and Counseling

A minimum of 18 credit hours is required in the chosen area of specialization. For many candidates, additional specialization credit beyond the 18 hours minimum may be desirable.

The program of study for the area of specialization is planned with the department adviser to meet the individual needs and interests of each student. Certain approved specialization credits may be earned in related courses from departments other than Education and Psychology.

EDUCATION AND PSYCHOLOGY

Electives

A minimum of 8 credit hours should be earned in departments other than Education and Psychology. The remaining credit hours needed to complete the degree may be earned in elective courses within the Education and Psychology Department.

A minimum of 24 credits must be in courses numbered 500 or higher.

There are no requirements with respect to experience or certification.

Practicum courses such as 560 and 565 may be required for certification purposes but they are not applicable to the 45 credits minimum required for the graduate degree.

MASTER OF EDUCATION

Basic Requirements

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Graduate Seminar
Methods of Research
Foundations

Area of Specialization

24

Administration	Health and Physical Education
Biology	Industrial Education
Biophysics	Junior High School Specialization
Business Teacher Education	Library Resources
Chemistry	Mathematics
Elementary Language Arts	Physics
Elementary Teaching	Secondary School Language Arts
English	Social Science
Guidance	

Electives with advisement

11

Under advisement select professional education courses or content courses from not more than two related areas as specified in departmental graduate program guides.

45 credits minimum

Two-thirds of the minimum 45 credits to be 400 level or higher.

One year of validated satisfactory professional experience.

All candidates must qualify for a state-approved teaching certificate before the degree is granted. It is the responsibility of the candidate to present evidence of this qualification.

All course work for the above degree must be planned with and approved by the departmental adviser.

EDUCATION AND PSYCHOLOGY

TEACHING CERTIFICATION

Walla Walla College is a state-approved teacher education institution. As such, it is authorized to recommend graduates to the Washington State Department of Education for the provisional and standard certificates.

The course offerings also provide for teaching certificates currently available from the General Conference Department of Education. Information concerning specific certificates is available in the regular bulletin and/or from the certification consultant.

Requirements for Standard Certificate—Fifth Year

To be recommended for the Washington Standard Certificate, the candidate must fulfill the following requirements:

1. Hold a valid Washington provisional certificate.
2. Complete two years of successful teaching.
3. Complete 45 quarter credits beyond the bachelor's degree.
4. Take History of the Pacific Northwest (for all elementary teachers and for those secondary teachers who plan to teach in the social sciences).

Of the 45 credits, 23 credits must be in residence; 30 credits may be earned prior to the first year of teaching; at least 15 hours must be earned after the first year of teaching; a maximum of 12 credits may be earned by correspondence and/or extension study. Correspondence or extension credits must be from schools approved by the college recommending the candidate for certification.

The fifth-year program must be planned by authorized personnel in the Education Department. By careful programming, some students are able to complete the requirements for the master's degree in education at the same time they are fulfilling the requirements for the Standard Certificate.

PRINCIPAL'S CREDENTIAL

Walla Walla College provides course offerings leading to both the provisional and standard principal's credentials (elementary, secondary and general).

COURSES IN EDUCATION

Graduate Courses

361 LANGUAGE ARTS IN THE ELEMENTARY SCHOOL 3

Designed to prepare the student for teaching language arts in the elementary school. Includes objectives, planning, methods and materials

EDUCATION AND PSYCHOLOGY

necessary for instruction in spelling, creative writing, listening, speaking, manuscript and cursive writing.

- 362 READING IN THE ELEMENTARY SCHOOL** 3
An introduction to skills, methods and teaching aids used in the elementary school. Topics include readiness, word recognition, comprehension, study skills, reading rate and recent emphases and approaches to reading instruction.
- 365 SOCIAL STUDIES IN THE ELEMENTARY SCHOOL** 3
Examination and application of current media and practices used in teaching social sciences in the elementary school.
- 365 LS LIBRARY MATERIALS FOR CHILDREN** 3
See Library Science.
- 369 SCIENCE IN THE ELEMENTARY SCHOOL** 3
Procedures of teaching science in the elementary school. Emphasis on appropriate media and the development of the scientific attitude.
- 373 MATHEMATICS IN THE ELEMENTARY SCHOOL** 3
Survey of the content, media and processes used in teaching mathematics in the elementary school; emphasis on newer approaches.
- 390 EDUCATIONAL EVALUATION** 3
A practical introduction to principles and techniques of evaluating classroom activities in elementary and secondary schools.
- 400 TOPICS IN EDUCATION** 1-3; 6
The study of advanced topics through class activities. One to three credits per quarter; maximum, six credits.
- 404 HISTORY OF EDUCATION** 3
A survey of the history of education.
- 412 Eng. LITERATURE FOR CHILDREN AND ADOLESCENTS** 3
See Department of English.
- 426 EDUCATIONAL GUIDANCE** 3
The philosophy, functions, organization, personnel and evaluation of the school guidance program.
- 431 H&PE ELEMENTARY SCHOOL HEALTH INSTRUCTION** 3
See Department of Health, Physical Education and Recreation.
- 431 Soc. SOCIOLOGY OF EDUCATION** 2
See Department of History, Political Science and Sociology.

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- 439 IE&T INDUSTRIAL ARTS IN THE ELEMENTARY SCHOOL 3
See Department of Industrial Education and Technology.
- 461 METHODS OF AUDIOVISUAL EDUCATION 2
A survey of the methods of instruction through the use of audiovisual aids.
- 462 INSTRUCTIONAL AIDS—PRODUCTION 2
Experiences in the production of instructional aids.
- 465 MICROTEACHING LABORATORY 3
Basic principles of instruction and fundamental teaching procedures which are applicable at any grade level are considered. Laboratory practice in certain teaching skills will be provided following the micro-teaching model. The class will meet one night each week and each student will participate weekly in an afternoon teaching laboratory. Prerequisite: one methods course on the appropriate teaching level.
- 474 WORKSHOP 1-3; 6
Workshop in selected areas of educational concern. Designed for both experienced teachers and those preparing to enter the teaching profession. One to three credits; maximum, six credits.
- 477, 478, 479 INDEPENDENT STUDY IN EDUCATION 1-3; 3
Directed study in an approved area. Permission from the chairman of the department and supervising instructor is required. One to three credits any quarter; maximum, three credits.
- 490 TEACHING HIGH SCHOOL READING 3
Basic principles of reading instruction; methods, materials and organization of the developmental and corrective reading programs in high school.
- 492 EDUCATION OF THE GIFTED 3
Emphasis is placed upon the design of learning opportunities for gifted children in the light of psychological characteristics of such children.
- 493 SYSTEMS OF THOUGHT 3
An intensive study of various aspects of philosophical thinking and their bearing upon education. Especially valuable in comprehending much current writing in education. (Ideally should precede or be taken concurrently with 522.)
- 495 EARLY CHILDHOOD EDUCATION 3
A critical review of the experimental literature of the cultivation of intellectual abilities in the young child with implications for the curriculum in nursery school and kindergarten. Prerequisites: Psychology 220 and Psychology 435.

EDUCATION AND PSYCHOLOGY

- 496 ELEMENTARY SCHOOL GUIDANCE** 3
A study of the rationale for elementary school guidance with emphasis upon current research and issues. Attention will be focused upon the tools and techniques of both classroom and out-of-class guidance functions and services.
- 500 GRADUATE SEMINAR** 1; 3
Discussion periods in which faculty and students explore significant issues through the examination and analysis of research and appropriate literature in the area of education. One credit; maximum, three credits.
- 504 ELEMENTARY SCHOOL CURRICULUM** 3
A study of the elementary school curriculum, including objectives, essentials of a good program, varying curriculum patterns and appraisal of current practices.
- 508 SECONDARY SCHOOL CURRICULUM** 3
Overview of the secondary school curriculum, with emphasis on the various subject fields; organization of the school for curriculum development; educational objectives; the courses of study; evaluation of the secondary school curriculum.
- 522 PHILOSOPHY OF EDUCATION** 3
A study of the basic philosophies and development of educational thinking resulting in the formulation of aims and objectives of education for today's schools.
- 525 EDUCATION IN THE TWENTIETH CENTURY** 3
Intended to help a student become conversant with significant problems, issues, trends and proposals affecting the theory and practice of education today.
- 526 SCHOOL FINANCE** 3
A course designed for administrators, emphasizing origins and disbursement of school funds.
- 527 SCHOOL PLANNING AND CONSTRUCTION** 3
A survey of how to plan and build schools, including the involvement of the lay citizen. Selection of site, trends in design, function of buildings and plant, costs and obligations will be studied. Professional architects and engineers will be guest lecturers.
- 535 TEACHING OF REMEDIAL READING** 3
Diagnostic and remedial reading techniques, how to recognize reading difficulties and improve reading skills. Laboratory experience required.

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- 539 SUPERVISION** 3
For principals, classroom teachers or those planning to be supervisors. Identifies duties of both teacher and supervisors, and suggests methods for the improvement of teachers in service through a comprehensive supervision program.
- 544 ADMINISTRATION OF THE ELEMENTARY SCHOOL** 3
Organization, supervision and administration of elementary schools.
- 550 SCHOOL LAW** 3
Utilizing the case study method, this course is designed to acquaint the student with the legal basis for public and parochial school operation in the United States.
- 551 ADMINISTRATION OF THE SECONDARY SCHOOL** 3
Problems and procedures in the organization and administration of secondary schools.
- 556 CURRICULUM PLANNING** 3
The relation of curricular materials to educational outcomes in terms of personal and social values. A brief review of curriculum investigations and their significance in the selection and evaluation of school materials and activities. Current practices in curriculum revision.
- 558 SCHOOL ACTIVITIES** 3
Designed to acquaint the student with the range of the school activities program; to define the purpose of such activities; to provide him with a valid basis for evaluating existing or proposed activities; and to provide opportunity for intensive study of one activity.
- 560 ADMINISTRATIVE PRACTICUM** 5
Professional laboratory experience for candidates for an administrative credential. The course is designed to involve each candidate in a variety of practical administrative experiences and to assist in his successful induction into school leadership. By permission of the department chairman.
- 561 METHODS OF RESEARCH** 3
Procedures in the selection and evaluation of research projects and techniques in the analysis of research data.
- 567 COMPARATIVE EDUCATION** 3
A comparison of systems and philosophies of education in various parts of the world; emphasis on the role of cultural impacts.

EDUCATION AND PSYCHOLOGY

575 READINGS IN EDUCATION 2-4

Advanced study confined to topic areas where the student can demonstrate a considerable degree of expertise due to previous formal studies and/or experience. To be done under the guidance and direction of a faculty member. The student will engage in an analysis of current literature and requires written and/or oral reports and conferences with the staff. By permission of the department chairman. Maximum, four credits.

581 PROFESSIONAL PROJECT 2, 4, 6; 6

Selected areas of advanced study involving reading and research. Formal report required. Prerequisite: consent of department chairman and graduate standing. Two, four or six credits any quarter; maximum, six credits.

590 THESIS 8

COURSES IN PSYCHOLOGY

350 ELEMENTARY STATISTICS 3

Descriptive techniques and other selected fundamental procedures for summarizing and interpreting data from tests and research in the various disciplines.

375 EXPERIMENTAL PROBLEMS 3

An advanced course which enables the student to develop skills in experimental design and to apply such skills to an individual research project. Prerequisite: 350 or equivalent.

400 TOPICS IN PSYCHOLOGY 1-3; 6

The study of advanced topics through class activities. One to three credits per quarter; maximum, six credits.

430 PSYCHOLOGICAL TESTING 3

Principles of test selection, administration and interpretation are considered together with the contributions and limitation of the major types of standardized tests and inventories used in the behavioral sciences.

431 PSYCHOLOGY OF EXCEPTIONAL CHILDREN 3

Characteristics and problems of exceptional children with consideration of essential educational adaptation.

435 CHILD PSYCHOLOGY 3

Principles of growth as related to various phases of human development during the preadolescent years: physical, mental and emotional.

EDUCATION AND PSYCHOLOGY

- 436 CHILD PSYCHOLOGY LABORATORY** 1
Prerequisite or corequisite: 435.
- 437 CHILDHOOD LEARNING DISORDERS** 3
An introduction to play therapy and psycho-educational programs with emphasis on perceptual, sensory and motor areas. Designed for teachers and counselors of young children in both early childhood and elementary school levels. Prerequisite: 435.
- 440 ADOLESCENT PSYCHOLOGY** 3
Principles of growth as related to various phases of human development during the adolescent years—physical, mental and emotional.
- 442 MOTIVATION** 3
A study of basic drives and causes of behavior in organisms with emphasis upon human behavior. This course includes a laboratory.
- 444 SOCIAL PSYCHOLOGY** 3
The dynamics of social interaction and interpersonal behavior with application to contemporary society.
- 445 SOCIAL PSYCHOLOGY LABORATORY** 1
Prerequisite: 444.
- 446 PSYCHOLOGY OF PERSONALITY** 3
Theories concerning personality development, assessment and adjustment will be considered.
- 449 MENTAL HEALTH** 3
Physiological and psychological factors related to emotional maturity. Individual mental health, classroom climate, patterns of acceptance and rejection.
- 474 WORKSHOP IN PSYCHOLOGY** 1-3; 6
A workshop designed to provide experiences in investigation and evaluation of contemporary problems and practices in psychology. One to three credits; maximum, six credits.
- 477, 478, 479 INDEPENDENT STUDY IN PSYCHOLOGY** 1-3; 3
Directed independent study in an approved area. Permission from the chairman of the department and supervising instructor is required. One to three credits any quarter; maximum, three credits.
- 489 VOCATIONAL DEVELOPMENT THEORY** 3
Theories of vocational choice and methods of studying occupations and occupational information are considered as they relate to educational and vocational guidance.

EDUCATION AND PSYCHOLOGY

Graduate Courses

- 501 STATISTICS IN RESEARCH** 3
An introduction to sampling theory, probability and statistical inference as applied to research analysis and hypothesis testing. Includes simple multivariate techniques and selected distribution-free tests of significance. Prerequisite: 350 or equivalent.
- 515 COUNSELING THEORIES AND TECHNIQUES** 3
A study and application of the theories and techniques for counseling. Professional relationships and ethics are considered.
- 518 GROUP COUNSELING** 2
Theories and techniques of counseling in group situations. Prerequisite: 515.
- 521 PSYCHOLOGY OF LEARNING** 3
The physiological and psychological bases for functional learning are discussed, and the experimental evidence supporting psychological hypotheses is reviewed.
- 532 INDIVIDUAL TESTING—Intelligence** 4
Supervised experience in the administration, interpretation and writing of psychological reports. Several intelligence instruments will be reviewed. Major emphasis, however, will center on Binet and Wechsler Intelligence Scales. Prerequisite: 430 and permission of the instructor.
- 564 ABNORMAL PSYCHOLOGY** 3
A study of behavioral disturbances, therapeutic measures and theories.

SUPPORTING COURSES

Selected courses are available, with advisement, from the following departments: Art, Biology, Business and Economics, Chemistry, English, Health and Physical Education, History, Political Science and Sociology, Home Economics, Journalism, Library Science, Mathematics, Modern Languages, Music, Office Administration, Physics and Speech.

ART

- 361-362-363 ADVANCED SCULPTURE** 2-2-2
Prerequisite: 261, 262, 263.
- 400 TOPICS IN ART** 1-3; 6
The study of advanced topics through class activities. One to three credits per quarter; maximum, six credits.
- 477, 478, 479 INDEPENDENT STUDY IN ART** 1-3; 3
Open to majors and minors only. One to three credits any quarter; maximum, three credits.

BIOLOGY (See pages 24-28)

BUSINESS

- 400 TOPICS IN BUSINESS** 1-3; 6
The study of advanced topics through class activities. One to three credits per quarter; maximum, six credits.
- 411 ADVANCED ACCOUNTING** 4
Prerequisite: 213.
- 412 CPA REVIEW** 4
Prerequisite: 411 or permission of instructor.
- 413 ACCOUNTING THEORY** 4
Prerequisite: 213.
- 414 FUND ACCOUNTING** 4
Prerequisite: 113 or 116.
- 419 AUDITING PROCEDURES** 4
Prerequisites: Eight hours of accounting beyond 213.
- 421 MONEY AND BANKING** 4
Prerequisite: 223.
- 422 COMPARATIVE ECONOMIC SYSTEMS** 4
Prerequisite: 223.
- 423 ECONOMICS OF FOREIGN TRADE** 4
Prerequisite: 223.

SUPPORTING COURSES

- 427 **DEVELOPMENT OF ECONOMIC THOUGHT** 4
Prerequisites: 321, 322.
- 429 **BUSINESS CYCLES** 4
Prerequisites: 321, 322.
- 431 **INVESTMENTS** 4
- 432 **CREDIT ADMINISTRATION** 4
- 435 **PUBLIC FINANCE** 4
Prerequisites: 113, 223.
- 477, 478, 479 **INDEPENDENT STUDY IN BUSINESS** 1-3; 3
Open only to majors and minors. Permission from the chairman of the department required. One to three credits; maximum, three credits.
- 444 **BUSINESS STATISTICS** 4
Prerequisites: Twelve hours of Mathematics and forty hours of Business.
- 361 **JOB ANALYSIS** 2
Prerequisite: 163.
- 362 **SUPERVISION** 2
Prerequisite: 163.
- 462 **MANAGEMENT OF MEDICAL INSTITUTIONS** 2
Prerequisites: 113, 223, 163.
- 463 **HUMAN RELATIONS IN MANAGEMENT** 4
Prerequisite: 163.
- 466 **BUSINESS POLICIES** 2
Prerequisites: 163 and forty hours of business core requirements.
- 467 **DENOMINATIONAL POLICY** 2
Prerequisite: Permission of the instructor.
- 471 **PUBLIC RELATIONS** 4
- 472 **PURCHASING** 4
- 473 **RETAIL STORE OPERATION AND MANAGEMENT** 4
Prerequisite: 371.
- 490 **SEMINAR IN BUSINESS EDUCATION** 2
- 491 **WORKSHOP IN BUSINESS TEACHER EDUCATION** 2
- 492 **BUSINESS EDUCATION CURRICULUM OF THE SECONDARY SCHOOL** 2
- 494 **PRINCIPLES, PROBLEMS AND TRENDS IN BUSINESS EDUCATION** 2

SUPPORTING COURSES

CHEMISTRY

- 351, 352, 353 PHYSICAL CHEMISTRY** 4, 4, 4
Prerequisites: 244, 245-246; Physics 211, 212, 213; 214, 215 216;
Mathematics 121, 122, 181, 281.
- 400 TOPICS IN CHEMISTRY** 1-3; 6
The study of advanced topics through class activities. One to three credits per quarter; maximum, six credits.
- 406, 407 BIOCHEMISTRY** 4, 3
Prerequisite: 321-322-323. Four credits, spring; three credits, autumn.
- 427, 428 ADVANCED ORGANIC CHEMISTRY** 2, 2
Prerequisite: 321-322-323.
- 461, 463 ADVANCED ANALYTICAL CHEMISTRY** 3, 3
Prerequisite: 246.
- 477, 478, 479 INDEPENDENT STUDY IN CHEMISTRY** 1-3; 3
Open only to majors and minors. Permission from the chairman of the department required. One to three credits any quarter; maximum, three credits.

COMMUNICATIONS

- 352 SURVEY OF BROADCASTING** 3
- 363 HISTORY OF DRAMATIC ARTS** 3
- 365 PLAY DIRECTION** 3
- 381, 382 PULPIT ADDRESS** 3, 3
- 400 TOPICS IN COMMUNICATION** 1-3; 6
The study of advanced topics through class activities. One to three credits per quarter; maximum, six credits.
- 401 INTRODUCTION TO GENERAL SEMANTICS** 2
Prerequisites: 101-102 or equivalent or permission of the instructor.
- 443 PERSUASIVE SPEAKING** 3
Prerequisite: 101-102.
- 453 RHETORIC AND PUBLIC ADDRESS** 3
Prerequisite: 101-102.
- 472 METHODS OF TEACHING SPEECH COMMUNICATION** 3
- 477, 478, 479 INDEPENDENT STUDY IN SPEECH** 1-3; 3
Permission from the chairman of the department required. One to three credits; maximum, three credits.
- 497 SEMINAR IN COMMUNICATION MEDIA** 2

SUPPORTING COURSES

SPEECH PATHOLOGY AND AUDIOLOGY

- 384 BASIC AUDIOLOGY** 3
Prerequisite: 210.
- 385 NONORGANIC VOICE AND ARTICULATION PROBLEMS** 4
Prerequisite: 210.
- 386 ORGANIC SPEECH PATHOLOGIES** 4
Prerequisite: 385.
- 387 STUTTERING: THEORIES AND THERAPIES** 4
Prerequisite: 385, 386.
- 388 SPEECH READING AND AUDITORY TRAINING** 3
- 390 DIRECTED CLINICAL OBSERVATION** 2
- 393 BEGINNING CLINICAL PRACTICUM** 2
Prerequisite: 386, 387.
- 410 ADVANCED CLINICAL PRACTICUM** 1-3; 6
Prerequisite: 393, or permission from the instructor. One to three credits; maximum, six credits.
- 441 ADVANCED AUDIOLOGY** 3
Prerequisite: 384.
- 461 DIAGNOSIS IN SPEECH PATHOLOGY** 3
Prerequisite: 393.
- 473 CLEFT PALATE SPEECH** 3
Prerequisite: 386.
- 475 VOICE DISORDERS** 3

JOURNALISM

- 352, 353 MAGAZINE EDITING** 3, 3
Prerequisite: 341, 342, 343.
- 363 PUBLIC RELATIONS** 3
- 382 EDITORIAL WRITING** 2
- 385 RELIGIOUS WRITING** 4
- 400 TOPICS IN JOURNALISM** 1-3; 6
The study of advanced topics through class activities. One to three credits per quarter; maximum, six credits.
- 412 NARRATIVE WRITING** 3
- 426 SCHOOL PUBLICATIONS** 2

SUPPORTING COURSES

477, 478, 479 INDEPENDENT STUDY IN JOURNALISM 1-3; 3
Open only to majors and minors. Instructor's approval required. One to three credits any quarter; maximum, three credits.

490 PRACTICUM IN JOURNALISM 1-4

ENGLISH

350 DIRECTED READING 1-2; 3
Prerequisites: 224, 225, 226 or 244, 245, 246 or 251, 252, 253. One or two credits any quarter; maximum, three credits.

354, 355, 356 TWENTIETH CENTURY LITERATURE 2
Prerequisites: 224, 225, 226 and 244, 245, 246.

361 CLASSICAL BACKGROUNDS 3
Prerequisites: 224, 225, 226 or 244, 245, 246 or 251, 252, 253.

371 MODERN ENGLISH GRAMMAR 3

385, 386 CREATIVE WRITING 3, 3

400 TOPICS IN ENGLISH 1-3; 6
The study of advanced topics through class activities. One to three credits per quarter; maximum, six credits.

401 EXPOSITORY PROSE 2
Prerequisite: 101-102-103 or equivalent.

404, 405, 406 THE VICTORIAN PERIOD 3, 3, 3
Prerequisite: 244, 245, 246.

407, 408, 409 AMERICAN LITERARY MASTERS 3, 3, 3
Prerequisite: 224, 225, 226.

412 LITERATURE FOR CHILDREN AND ADOLESCENTS 3

421, 422, 423 THE ROMANTIC PERIOD 2, 2, 2
Prerequisite: 244, 245, 246.

425 INTRODUCTION TO ENGLISH LINGUISTICS 3

426 HISTORY OF THE ENGLISH LANGUAGE 3

427, 428, 429 RESTORATION AND NEOCLASSIC LITERATURE 2, 2, 2
Prerequisite: 244, 245, 246.

441, 442, 443 OLD AND MIDDLE ENGLISH LITERATURE 2, 2, 2
Prerequisite: 244, 245, 246.

453 AMERICAN LITERATURE BACKGROUNDS 3
Prerequisite: 224, 225, 226.

464, 465, 466 RENAISSANCE LITERATURE 3, 3, 3
Prerequisite: 244, 245, 246.

SUPPORTING COURSES

- 467 SHAKESPEARE** 3
An intensive study of content and form in selected works of Shakespeare, their relationship to their times, and their contribution to the development of drama and poetry in the Renaissance. Prerequisite: 244, 245, 246.
- 468 LITERATURE OF THE BIBLE** 3
Prerequisite: 224, 225, 226 or 244, 245, 246 or 251, 252, 253.
- 471 METHODS OF TEACHING HIGH SCHOOL ENGLISH** 4
Prerequisites: 371 and 412.
- 473 METHODS OF TEACHING MODERN GRAMMARS IN THE ELEMENTARY AND SECONDARY SCHOOLS** 3
An intensive course integrating methodologies pertaining to the teaching of traditional, structural and transformational grammars. Prerequisite or corequisite: 371.
- 477, 478, 479 INDEPENDENT STUDY IN ENGLISH** 1-3; 3
Directed study in either literature or language; a research-oriented approach presupposing considerable background; open only to majors and minors. One to three credits any quarter; maximum, three credits.
- 491 SEMINAR** 3

HEALTH, PHYSICAL EDUCATION, AND RECREATION

- 350 AQUATICS** 3
- 351 SCHOOL HEALTH PROGRAM** 3
- 363 PHYSIOLOGY OF EXERCISE** 3
Prerequisite: Biological Sciences 203.
- 352 HEALTH EDUCATION IN CHURCH PROGRAMS** 3
- 358 PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL** 3
- 351 KINESIOLOGY** 3
- 400 TOPICS IN PHYSICAL EDUCATION** 1-3; 6
The study of advanced topics through class activities. One to three credits per quarter; maximum, six credits.
- 403 LEADERSHIP IN CAMPING AND CAMPCRAFT** 2
Prerequisite: 343 and permission of instructor.
- 420 TEACHING TECHNIQUES OF PHYSICAL EDUCATION ACTIVITIES** 2
- 422 FOUNDATIONS OF PHYSICAL EDUCATION** 3
- 423 TESTS AND MEASUREMENTS IN PHYSICAL EDUCATION** 3
Prerequisite: Education 390.

SUPPORTING COURSES

431	ELEMENTARY SCHOOL HEALTH INSTRUCTION	3
432	SECONDARY SCHOOL HEALTH INSTRUCTION	3
437	FIELD TRAINING	3
	Prerequisite: 266 or 352.	
451	ADMINISTRATION OF PHYSICAL EDUCATION	3
472	METHODS OF TEACHING PHYSICAL EDUCATION	3
477, 478, 479	INDEPENDENT STUDY IN HEALTH AND PHYSICAL EDUCATION	1-3; 3
	Open only to majors and minors. Permission from the chairman of the department required. One to three credits any quarter; maximum, three credits.	
492, 493	SEMINAR	1, 1

HISTORY, POLITICAL SCIENCE AND SOCIOLOGY

HISTORY

European History

377, 378, 379	HISTORY OF ENGLAND	2, 2, 2
435, 436	HISTORY OF MODERN GERMANY	3, 3
461	ANCIENT MEDITERRANEAN CIVILIZATIONS	3
462	EARLY MIDDLE AGES	3
463	THE LATE MIDDLE AGES	3
464	THE RENAISSANCE	3
465	THE REFORMATION	3
467	THE CRUCIBLE OF REVOLUTION, 1789-1815	3
468	THE MODERN TRANSITION, 1815-1914	3
469	INTERWAR EUROPE, 1914-1945	3
470	CONTEMPORARY EUROPE, 1945 TO THE PRESENT	3
474, 475, 476	HISTORY OF RUSSIA	3, 3, 3

American History

387, 388, 389	HISTORY OF LATIN AMERICA	2, 2, 2
400	TOPICS IN HISTORY	1-3
424	THE AMERICAN FRONTIER	4
445	THE AMERICAN CIVIL WAR AND RECONSTRUCTION	3
	Prerequisite: 201, 202, 203.	

SUPPORTING COURSES

446	HISTORY OF THE PACIFIC NORTHWEST	3
448	THE MAKING OF MODERN AMERICA SINCE 1877	3
	Prerequisite: 201, 202, 203.	
449	RECENT AMERICA, 1919 TO THE PRESENT	3
	Prerequisite: 201, 202, 203.	
457, 458, 459	SOCIAL AND INTELLECTUAL HISTORY OF THE U.S.	3, 3, 3
	Prerequisite: 201, 202, 203.	
477, 478, 479	INDEPENDENT STUDY	1-3
491-492	SEMINAR	2-2

POLITICAL SCIENCE

400	TOPICS IN POLITICAL SCIENCE	1-3
401	CONSTITUTIONAL HISTORY	3
402	INTERNATIONAL RELATIONS	3
414, 415, 416	AMERICAN DIPLOMATIC HISTORY	2, 2, 2
424, 425	WESTERN POLITICAL THOUGHT	3, 3
426	AMERICAN POLITICAL THOUGHT	3
477, 478, 479	INDEPENDENT STUDY IN POLITICAL SCIENCE	1-3; 3
	Open only to minors. Instructor's approval required. One to three credits any quarter; maximum, three credits.	

SOCIOLOGY

351	SOCIOLOGY OF COMMUNITIES	3
358	CRIMINOLOGY	2
359	JUVENILE DELINQUENCY	2
400	TOPICS IN SOCIOLOGY	1-3
431	SOCIOLOGY OF EDUCATION	3
432	SOCIOLOGY OF RELIGION	2
	Prerequisite: 204, 205.	
433	SOCIOLOGY OF LAW	2
464	HISTORY OF SOCIOLOGICAL THEORY	3
465	SOCIOLOGICAL THEORY	3
466	METHODS OF SOCIAL RESEARCH	3
	Prerequisites: 204, 205; Education 350.	

SUPPORTING COURSES

477, 478, 479 INDEPENDENT STUDY IN SOCIOLOGY 1-3; 3
Open only to majors and minors. Instructor's approval required. One to three credits; maximum, three credits.

HOME ECONOMICS

382 CHILD DEVELOPMENT 3

400 TOPICS IN HOME ECONOMICS 1-3; 6
The study of advanced topics through class activities. One to three credits per quarter; maximum, six credits.

403 TEXTILE DESIGN 3
Prerequisite: 302 or equivalent.

412 FOODS IN CULTURES OF THE WORLD 3
Prerequisite: Adequate background in food preparation.

422 EXPERIMENTAL COOKERY 3
Prerequisites: 101, 102, 103 and Chemistry 101-102-103 or 161-162-163 or equivalent.

424, 425 INTERIOR DECORATION 3, 3
Must be taken in sequence unless by permission of instructor.

437-438 COMMUNITY NUTRITION 2-1
Prerequisite: 220 or permission of instructor.

441-442 ADVANCED NUTRITION 2-2
Prerequisites: 101, 102, 103 and 220; Chemistry 101-102-103 or 161-162-163.

443 DIET IN DISEASE 3
Prerequisites: 101, 102, 103 and 220 or equivalent.

447 INSTITUTION FOOD PURCHASING 3
Check with instructor before registering for this course.

448 INSTITUTION MANAGEMENT 3
Prerequisite: 286 or permission of instructor.

461-462 TAILORING 2-2
Prerequisite: 241, 242, 243 or equivalent.

471 METHODS OF TEACHING HOME ECONOMICS 3

477, 478, 479 INDEPENDENT STUDY IN HOME ECONOMICS 1-3; 3
One to three credits any quarter; maximum, three credits.

486 ADVANCED INTERIOR DECORATION 3
Prerequisites: 222, 223 and 424, 425 or equivalent.

493 SEMINAR 1

SUPPORTING COURSES

INDUSTRIAL EDUCATION AND TECHNOLOGY

- 352, 353 RADIO COMMUNICATIONS** 4, 4
Prerequisite: 271, 272, 273 or equivalent, and 291 recommended.
- 356 AIR CONDITIONING** 2
- 362 APPLIED PHOTOGRAPHY** 3
Prerequisite: 161 or equivalent.
- 366 INDUSTRIAL MATERIALS** 3
- 370 PRESS PHOTOGRAPHY** 1
Prerequisite: 362 or equivalent.
- 371, 372 INDUSTRIAL ELECTRONICS** 4, 4
Prerequisite: 271, 272, 273 or equivalent.
- 381, 382, 383 MACHINE TOOL PRACTICE II** 2, 2, 2
Prerequisite: 244, 245-246 or equivalent.
- 387 COURSE CONSTRUCTION** 3
- 389 SHOP ADMINISTRATION AND PLANNING** 3
- 399 OIL HYDRAULICS** 3
- 400 TOPICS IN INDUSTRIAL EDUCATION AND TECHNOLOGY** 1-3; 6
The study of advanced topics through class activities. One to three credits per quarter; maximum, six credits.
- 411, 412, 413 TELEVISION SYSTEMS AND CIRCUIT ANALYSIS** 3, 3, 3
Prerequisite: 271, 272, 273 or equivalent.
- 415-416 ADVANCED LITHOGRAPHY** 3-3
Prerequisite: 237-238-239 or equivalent.
- 439 INDUSTRIAL ARTS IN THE ELEMENTARY SCHOOL** 3
- 447 HISTORY AND PHILOSOPHY OF INDUSTRIAL EDUCATION** 3
- 472 METHODS OF TEACHING INDUSTRIAL ARTS** 3
- 477, 478, 479 INDEPENDENT STUDY IN INDUSTRIAL EDUCATION AND TECHNOLOGY** 1-6
Prerequisite: lower division work in same area for supervisory or teaching-aid construction. Six credits maximum from this and/or Industrial Practicum.
- 484, 485, 486 INDUSTRIAL PRACTICUM** 1-6
Prerequisite: lower division work in chosen area.
- 488 SENIOR PROBLEM** 1

SUPPORTING COURSES

LIBRARY SCIENCE

- 355 HISTORY OF BOOKS AND PRINTING 3
- 365 LIBRARY MATERIALS FOR CHILDREN 3
- 382 SCHOOL LIBRARY AS A MATERIALS CENTER 3
- 384 ADVANCED CATALOGING AND CLASSIFICATION 3
Prerequisite: 286.
- 400 TOPICS IN LIBRARY SCIENCE 1-3; 6
The study of advanced topics through class activities. One to three credits per quarter; maximum, six credits.
- 413 SELECTION OF LIBRARY MATERIALS 3
- 461 REFERENCE MATERIALS IN THE SOCIAL SCIENCES 3
Prerequisite: 271.
- 464 REFERENCE MATERIALS IN THE HUMANITIES 3
Prerequisite: 271.
- 472 METHODS OF LIBRARY INSTRUCTION 3
- 477, 478, 479 INDEPENDENT STUDY IN LIBRARY SCIENCE 1-3; 3
Open only to minors. Permission from the chairman of the department required. One to three credits any quarter; maximum, three credits.
- 483 ADMINISTRATION OF SCHOOL LIBRARIES 3
- 490 DIRECTED FIELD WORK 1-3; 3
One to three credits any quarter; maximum, three credits.
- 493 SEMINAR IN SCHOOL LIBRARY PROBLEMS 3

MATHEMATICS

- 351, 352, 353 ADVANCED CALCULUS 3, 3, 3
Prerequisite: 283.
- 400 TOPICS IN MATHEMATICS 1-3; 6
(See main Bulletin)
- 411, 412, 413 MODERN ALGEBRA 4, 4, 4
Permission of the instructor required.
- 471 METHODS OF TEACHING MATHEMATICS 3
- 477, 478, 479 INDEPENDENT STUDY IN MATHEMATICS 1-3; 3
Open only to majors and minors. Permission from the chairman of the department required. One to three credits; maximum, three credits.

SUPPORTING COURSES

MODERN LANGUAGES

- 400 TOPICS IN MODERN LANGUAGES** 1-3; 6
The study of advanced topics through class activities. One to three credits per quarter; maximum, six credits.
- 403 MODERN GERMAN LITERATURE** 4
- 404, 405, 406 FRENCH DIRECTED READING** 1-3; 6
Prerequisite: 304, 305, 306. One to three credits; maximum, six credits.
- 408 ROMANTICISM AND REALISM** 4
(French)
- 411, 412, 413 GERMAN DIRECTED READING** 1-3; 6
Prerequisite: 317-318-319. One to three credits; maximum, six credits.
- 414, 415, 416 SPANISH DIRECTED READING** 1-3; 6
Prerequisite: 341-342-343. One to three credits; maximum, six credits.
- 419 THE SEVENTEENTH CENTURY** 4
(French)
- 421 GERMAN CLASSICISM** 4
- 422 GERMAN ROMANTICISM** 4
- 424, 425, 426 CONTEMPORARY SPANISH LITERATURE** 2, 2, 2
- 431, 432, 433 LATIN AMERICAN LITERATURE** 3, 3, 3
- 438 MODERN PERIOD OF FRENCH LITERATURE** 4
- 471 METHODS OF TEACHING MODERN LANGUAGES** 3
- 477, 478, 479 INDEPENDENT STUDY IN MODERN LANGUAGES** 1-3; 3
Open only to majors and minors. Permission from the chairman of the department required. One to three credits any quarter; maximum, three credits.

MUSIC

- 382 VOCAL TECHNIQUES** 3
- 387 BASIC CONDUCTING** 2
- 388 INSTRUMENTAL CONDUCTING** 2
Prerequisite: 387.
- 389 CHORAL CONDUCTING** 2
Prerequisite: 387.
- 400 TOPICS IN MUSIC** 1-3; 6
The study of advanced topics through class activities. One to three credits per quarter; maximum, six credits.

SUPPORTING COURSES

406 COUNTERPOINT	3
Prerequisite: 304 and 305.	
409 ORCHESTRATION	3
Prerequisite: 304 and 305.	
411, 412, 413 COMPOSITION I	1-2, 1-2, 1-2
Prerequisite: 204-205-206 and/or permission of instructor.	
415 COMPOSITION II	1-3; 3
Prerequisite: 411, 412, 413 and/or permission of instructor. One to three credits; maximum, three credits.	
472 THE TEACHING OF MUSIC IN THE ELEMENTARY SCHOOL	2
473 THE TEACHING OF MUSIC IN THE SECONDARY SCHOOL	2
477, 478, 479 INDEPENDENT STUDY IN MUSIC	1-3; 3
Open only to majors and minors. Instructor's approval required. One to three credits any quarter; maximum, three credits.	
481, 482, 483 SELECTED TOPICS IN MUSIC	1-3; 3
One to three credits any quarter; maximum, three credits.	

OFFICE ADMINISTRATION

400 TOPICS IN OFFICE ADMINISTRATION	1-3; 6
The study of advanced topics through class activities. One to three credits per quarter; maximum, six credits.	
409 ADVANCED SECRETARIAL PROCEDURES	4
417, 418, 419 THE PROFESSIONAL SECRETARY	3, 3, 3
427 ADVANCED TRANSCRIPTION	4
447 MEDICAL OFFICE PROCEDURES	3
448 MEDICAL TERMINOLOGY	5
Prerequisite: Biology 202, 203 or equivalent substitution with consent of department chairman.	
463 THE LEGAL SECRETARY	2
472 METHODS OF TEACHING SHORTHAND AND TYPEWRITING	4
474 THE DENOMINATIONAL SECRETARY	2
475 METHODS OF TEACHING BOOKKEEPING	2
477, 478, 479 INDEPENDENT STUDY IN OFFICE ADMINISTRATION	1-3; 3
One to three credits any quarter; maximum, three credits.	
491 OFFICE ADMINISTRATION SEMINAR	1-3

SUPPORTING COURSES

PHYSICS

- 350 PHYSICS AND MODERN LIFE** 3
- 352, 353 RADIOISOTOPE RESEARCH TECHNIQUES** 2, 2
Prerequisite: 211, 212, 213 or Chemistry 161-162-163.
- 362, 363 THEORETICAL MECHANICS** 3, 3
- 400 TOPICS IN PHYSICS** 1-3; 6
One to three credits per quarter; maximum, six credits.
- 411, 412, 413 ATOMIC AND NUCLEAR PHYSICS** 3, 3, 3
Prerequisite: 301, 302, 303. Corequisite: 414, 415, 416; 417, 418, 419.
- 414, 415, 416 EXPERIMENTAL PHYSICS** 1, 1, 1
- 417, 418, 419 PHYSICS SEMINAR II** 1, 1, 1
- 471 METHODS OF TEACHING PHYSICAL SCIENCE** 3
- 477, 478, 479 INDEPENDENT STUDY IN PHYSICS** 1-3; 3
Open only to majors and minors. Permission from the chairman of the department required. One to three credits any quarter; maximum, three credits.

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