

*E. L. Mabley*



# Graduate Division • 1968 Bulletin



**WALLA WALLA COLLEGE**

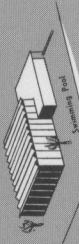
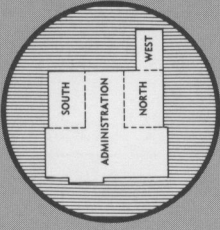
COLLEGE PLACE, WASHINGTON 99324

# Walla Walla College



**Graduate Division 1968**

# WALLA WALLA COLLEGE CAMPUS



**The College is Accredited by**

The Northwest Association of  
Secondary and Higher Schools

The Washington State Board of  
Education

Department of Baccalaureate and  
Higher Degree Programs of the  
National League for Nursing

National Association of Schools of  
Music

**is a member of**

Association of American Colleges

Association of Seventh-day Ad-  
ventist Colleges and Secondary  
Schools

Council of Member Agencies, De-  
partment of Baccalaureate and  
Higher Degree Programs of the  
National League for Nursing

American Council on Education  
National Commission on Accredi-  
tation

American Association of Colleges  
for Teacher Education

**is approved by**

U.S. Government for the training  
of veterans under the G.I. Bills  
550 and 894

The Attorney General of the  
United States for nonimmigrant  
students

Washington State for training in  
Vocational Rehabilitation

## FOR INFORMATION

Concerning general information, bulletins, application blanks, view-books, student handbooks, write

The Registrar

Concerning the graduate programs, teaching and research assistantships, special credentials, write

Chairman, The Graduate Council or

Chairman, Department involved

Concerning work, financial arrangements, and apartments, write

Finance Counseling Office

Concerning room reservations and other matters of residence, write

The Dean of Men or

The Dean of Women

WALLA WALLA COLLEGE  
College Place, Washington 99324

Telephone

Walla Walla

JACKSON 5-7560

Area Code 509

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# CALENDAR 1968

## SPRING QUARTER

March 18—Monday . . . . .	Registration of New Students
March 19—Tuesday . . . . .	Instruction begins, 7:30 a.m.
March 26, 27 . . . . .	Graduate Record Examinations
April 3—Wednesday . . . . .	Last day to add a course
April 17—Wednesday . . . . .	Last day to drop a course
May 28, 29, 30 . . . . .	Final Examinations
May 31—Friday . . . . .	Quarter ends
May 31—Friday (8:00 p.m.) . . . . .	Senior Consecration
June 1—Saturday (11:00 a.m.) . . . . .	Baccalaureate
June 2—Sunday (10:00 a.m.) . . . . .	Commencement

## SUMMER SCHOOL, 1968

June 12-August 2 . . . . .	
August 4 . . . . .	Commencement

## AUTUMN QUARTER

September 22—Sunday . . . . .	All students arrive, Registration
September 23—Monday . . . . .	Registration, Tests, Orientation
September 24—Tuesday . . . . .	Registration, Tests, Orientation
September 25—Wednesday . . . . .	Instruction begins, 7:30 a.m.
October 14—Monday . . . . .	Last day to add a course
October 20 or 22 . . . . .	Last day to drop a course
November 28 . . . . .	Thanksgiving
December 4-8 . . . . .	Registration for Winter Quarter
December 16-18 . . . . .	Final Examinations
December 18 . . . . .	Quarter ends
December 18-January 2 . . . . .	Christmas Recess

## WINTER QUARTER

January 2 and 3 . . . . .	Registration of New Students
January 6 . . . . .	Instruction begins, 7:30 a.m.
January 20 . . . . .	Last day to add a course
January 28 . . . . .	Last day to drop a course
March 3-7 . . . . .	Registration for Spring Quarter
March 10-12 . . . . .	Final Examinations
March 12 . . . . .	Quarter ends
March 12-17 . . . . .	Spring Recess

# ADMINISTRATION

## BOARD OF TRUSTEES

W. J. HACKETT, <i>Chairman</i>	J. O. EMMERSON	H. C. RHODES
L. R. REYNOLDS, <i>Secretary</i>	CLYDE HARRIS	E. E. RIPPEY
V. H. SIVER, <i>Treasurer</i>	L. H. JENSEN	T. W. WALTERS
W. J. BLACKER	G. W. LISCOMBE	F. W. WERNICK
J. W. BOTHE	C. J. NAGELE	G. C. WILLIAMSON
L. W. CROOKER	R. C. REMBOLDT	

## OFFICERS OF ADMINISTRATION

L. R. REYNOLDS, M. A. ....	President of the College
ROBERT H. BROWN, PH. D. ....	Vice President, Student Affairs
HANS L. RASMUSSEN, Ed. D. ....	Academic Dean
V. H. SIVER, B. A. ....	Business Manager
ORPHA N. OSBORNE, B. A. ....	Registrar
MYRTLE E. ROWSE, M. A. ....	Acting Librarian
RICHARD D. FEARING, M. A. ....	Chaplain
MAYNARD EUGENE LOEWEN, B. A. ....	Dean of Men
HANNAH RACHEL HAGSTOTZ, M. A. ....	Dean of Women
GORDON S. BALHARRIE, B. D. ....	Dean, School of Theology
WILMA L. LEAZER, R. N., M. S. ....	Dean, School of Nursing

## ADMINISTRATIVE COUNCIL

L. R. REYNOLDS, G. S. BALHARRIE, R. A. BECK, R. H. BROWN, E. F. CROSS, HELEN EVANS, ORPHA OSBORNE, J. V. PETERS, H. L. RASMUSSEN, V. H. SIVER, A. L. WHITE.

## GRADUATE COUNCIL

J. V. PETERS, C. C. BARNETT, D. F. BLAKE, R. H. BROWN, C. E. CHINN, ORPHA OSBORNE, H. L. RASMUSSEN, D. W. RIGBY, D. O. WAGNER.



## THE GRADUATE FACULTY

Courses which may be applied towards the master's degree programs are taught by members of the Walla Walla College Faculty or by visiting professors. Majors are offered in Education and Biology, while certain other departments offer supporting courses.

### Biology

**RIGBY, DONALD W., Professor of Biology**

B. A., 1950, La Sierra College; M. A., 1956, Walla Walla College; Ph. D., Loma Linda University

**BLAKE, DONALD F., Assistant Professor of Biology**

B. A., 1953, Oakwood College; B. S., 1957, M. S., 1959, Michigan State University; Ph. D., 1965, University of Rhode Island

**FORS, CARL, Assistant Professor of Biology**

B. A., 1958, Walla Walla College; M. A., 1959; Ph. D., 1965, Oregon State University

**GRABLE, ALBERT, Assistant Professor of Biology**

B. S., 1959, La Sierra College; M. S., 1962, Ph. D., 1964, University of Minnesota

**STOUT, JOHN F., Associate Professor of Biology**

B. A., 1957, Columbia Union College; Ph. D., 1963, University of Maryland

### Education

**PETERS, J. V., Professor of Education**

B. A., 1936, Minnesota Teachers College; M. A., 1946, University of Idaho; Ed. D., 1962, University of Montana

**CALLENDER, LYNN R., Assistant Professor of Education**

B. Th., 1945, Walla Walla College; Ed. M., 1958, Temple University; Ed. D., 1966, Arizona State

**GIBBONS, C. KEITH, Assistant Professor of Education**

B. A., 1960, M. A., 1966, Walla Walla College

**JONES, LUCILE HALL, Associate Professor of Health Education**

R. N., 1933, Florida Sanitarium and Hospital; B. S. N. Ed., 1936, Columbia Union College; M. S., 1955, Oregon State College; M. A., 1956, Walla Walla College

**MABERLY, NORMAN C., Professor of Education**

B. Th., 1952, Walla Walla College; M. A., 1954 Andrews University; Ed. D., 1962 University of Southern California

**MANALAYSAY, REUBEN G., Professor of Education**

B. S. E., 1938, B. A., 1939, Philippine Union College; M. A., 1947, Far Eastern University; M. Ed., 1950, University of the Philippines; Ed. D., 1951, Indiana University

**MANALAYSAY, RAQUEL, Associate Professor of Education**

B. S. E., 1942, Philippine Union College; M. Ed., 1954, University of the Philippines; Ed. D., 1957, Indiana University

**RHODES, J. WESLEY, Professor of Education**

B. A., 1931, Emmanuel Missionary College; M. Mus., 1947, Northwestern University; Ed. D., 1957, Columbia Teachers College

**STAHLNECKER, ROBERT E., Associate Professor of Education**

B. Th., 1950, Walla Walla College; M. A., 1960, Eastern New Mexico University; Ed. D., 1965, University of Oregon

**TEEL, LOIS FLORETTA, Associate Professor of Education**

B. A., 1947, Emmanuel Missionary College; M. Ed., 1959, University of Oregon

**\*WAGNER, DALE O., Assistant Professor of Education**

B. A., 1952, Walla Walla College; M. A., 1958, Eastern Washington State College

**WAGNER, ROBERT D., Associate Professor of Education**

B. Sc., 1942, University of Nebraska; M. A., 1954, University of Nebraska

**WALTERS, THOMAS W., Professor of Education**

B. A., 1934, Walla Walla College; M. A., 1950, Ed. D., 1955, Stanford University

\*Leave of absence current year.

## Supporting Departments, Chairmen

### BALHARRIE, GORDON S., Professor of Religion

B. A., 1945, Columbia Union College; M. A., 1949, B. D., 1960, Theological Seminary, Andrews University

### BARNETT, CLAUDE C., Professor of Physics

B. S., 1952, Walla Walla College; M. S., 1956, State College of Washington; Ph. D., 1960, Washington State University

### EVANS, HELEN WARD, Associate Professor of English

B. A., 1949, Walla Walla College; M. A., 1955, Ph. D., 1965, Stanford University

### HARE, GORDON B., Associate Professor of Mathematics

B. A., 1951, Columbia Union College; M. S., 1954, Ph. D., 1964, University of Colorado

### HARTBAUER, ROY E., Associate Professor of Speech

B. Th., 1950, Walla Walla College; M. A., 1961, University of Southern California; Ph. D., 1966, Michigan State University

### HENDERSON, ROBERT A., Assistant Professor of History

B. A., 1962, Walla Walla College; Ph. D., 1967, Washington State University

### HOLDEN, PAUL H., Assistant Professor of Modern Languages

B. A., 1962, Southern Missionary College; M. A., 1964, Ph. D., 1966, University of Southern California

### JONES, CARL T., Professor of Chemistry

B. A., 1933, Columbia Union College; M. S., 1939, Catholic University of America; Ph. D., 1959, Oregon State College

### LITKE, RICHARD L., Professor of Biblical Languages

B. A., 1948, Walla Walla College; B. A., 1953, M. A., 1953, University of California; Ph. D., 1959, Yale University

### MEHLING, J. G., Professor of Business and Economics

B. B. A., 1934, Walla Walla College; M. A., 1947, University of Washington; C. P. A., 1947, State of Washington

### MURPHY, WILLIAM H., Assistant Professor of Music

B. A., 1952, Union College; M. A., 1960, Colorado State College

### RITTENHOUSE, EVELYN, Associate Professor of Secretarial Science

B. A., 1943, Pacific Union College; M. S., 1951, University of Southern California

### TRAUTWEIN, CALVIN L., Professor of Industrial Education

B. A., 1945, La Sierra College; B. S., 1950, Pacific Union College; Ed. M., 1955, Oregon State College; Ed. D., 1962, Colorado State College

### WINTER, EUGENE S., Professor of Physical Education

B. A., 1941, Walla Walla College; M. S., 1948, State College of Washington; Ph. D., 1963, University of Oregon

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## GENERAL INFORMATION

**W**ALLA 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 directly to the site of the old mission which was conducted by Marcus Whitman from 1836 to 1847, and which has been reconstructed by the Federal Government as 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 College, in successful operation since December 7, 1892, was established in harmony with a resolution unanimously adopted at the General Conference of Seventh-day Adventists held in Battle Creek, Michigan, in 1891.

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.

### OBJECTIVES OF THE GRADUATE PROGRAM

1. To provide an atmosphere which will stimulate intellectual curiosity and independent thinking.
2. To develop an appreciation of the value of research and an acquaintance with basic research techniques.
3. To strengthen the professional competence of the individual in his area of specialization.

## SCHOLARSHIPS, ASSISTANTSHIPS, AND LOANS

### Conference Teachers' Scholarships

The North Pacific Union Conference of Seventh-day Adventists has authorized five full-tuition graduate scholarships for three quarters of study leading to the master's degree with a major in education at Walla Walla College. Application for the scholarship should be made to the conference educational secretary in whose territory the individual is currently employed or the conference in which he will be employed upon completion of the year of study.

### Department of Education Assistantships

Graduate assistantships are available annually. They include the following benefits: full tuition and fees for four quarters and a cash stipend.

It is planned that graduate assistants will complete the master's degree in this time period and that in the assistantships the graduate student will participate in a variety of research, instructional and guidance services, and professional writing.

For additional information and the procedures of application, interested individuals should write the department chairman.

### Department of Biology Assistantships

1. Teaching. A number of half-time teaching assistantships for the nine-month academic year as well as for the summer at the Marine Biological Station are available. A stipend of \$900 is given for the academic year and full tuition and fees are remitted. The teaching assistant is normally involved in laboratory instruction in basic courses.

The teaching assistantship stipends for the summer are awarded at the same rate as those during the academic year; however, half-time tuition is remitted and laboratory fees are not included.

2. Research. Members of the staff frequently have at their disposal research funds. Stipends start at \$150 per month. Research assistants are normally involved in assisting one of the professors with a current research program.

Application forms for teaching and/or research assistantships may be obtained by writing directly to the head of the Biology Department. Applications must be completed by April 15.

### Loans

All graduate students working for a master's degree are eligible for the National Defense Educational Loan after the need has been established. There are other sources of loans such as the Carrie Welch Loan Fund, Grettner Loan Fund, and the National Bank of Commerce Worthy Student Loan Fund.

## TUITION AND FEES, STUDENT HOUSING

A degree will not be awarded officially to any candidate who does not have scholastic and financial clearance and who has not made available his final (approved) copies of his thesis if a Master of Arts candidate.

Per quarter credit	\$28.50
(Regular tuition is charged for auditing classwork)	

### Special Fees—See also general bulletin.

Degree, Master's	\$25.00
(This includes thesis binding and rental of cap, gown, and hood.)	
Degree, Master's <i>in absentia</i>	\$35.00

### Student Housing

For student housing, contact the Director of Student Finance.

## GENERAL

## INFORMATION

Graduate assistantships are available for the fall semester and for four quarters and a cash stipend. It is planned that graduate assistants will complete the master's degree in this time period and that in the assistantship the graduate student will participate in a variety of research, instructional and guidance services, and professional writing.

For additional information and the procedures of application interested individuals should write the department chairman.

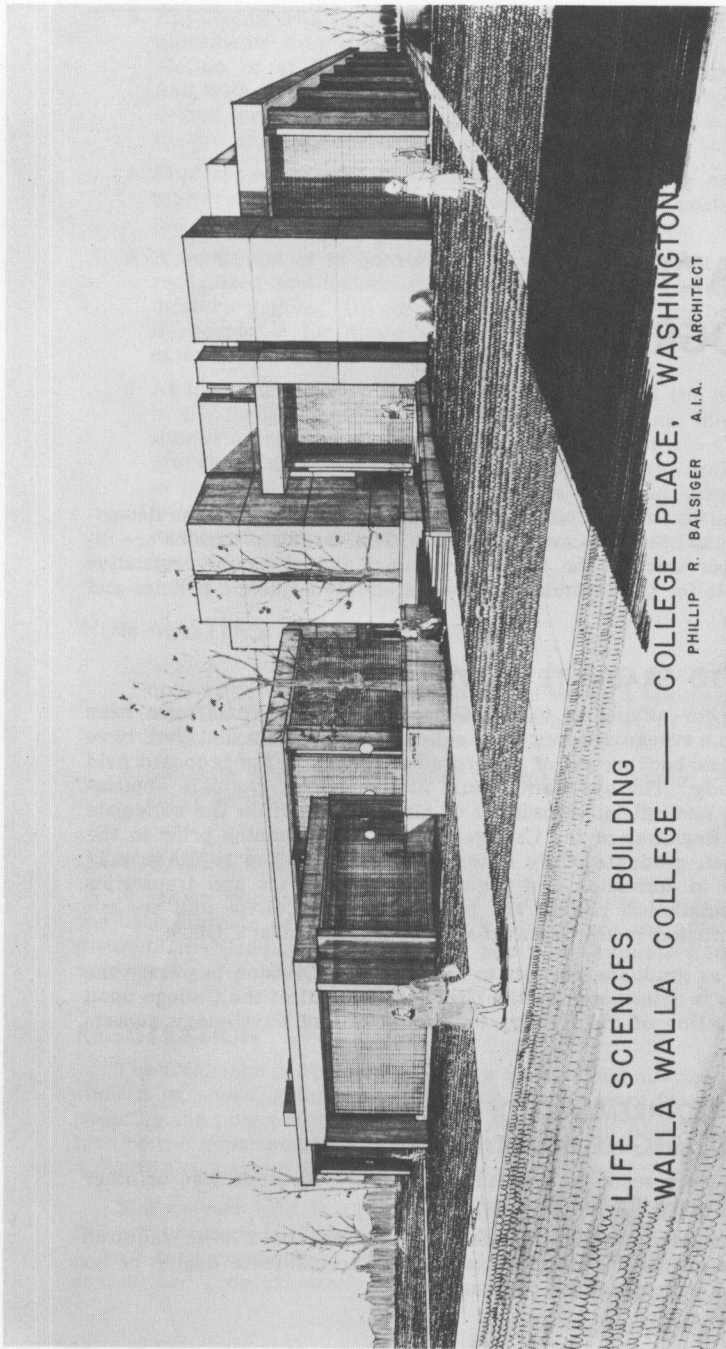
Department of Biology Assistantships  
A number of full-time assistantships are available for the fall semester and for four quarters and a cash stipend. It is planned that graduate assistants will complete the master's degree in this time period and that in the assistantship the graduate student will participate in a variety of research, instructional and guidance services, and professional writing. For additional information and the procedures of application interested individuals should write the department chairman.

Department of Chemistry Assistantships  
A number of full-time assistantships are available for the fall semester and for four quarters and a cash stipend. It is planned that graduate assistants will complete the master's degree in this time period and that in the assistantship the graduate student will participate in a variety of research, instructional and guidance services, and professional writing. For additional information and the procedures of application interested individuals should write the department chairman.

Department of Physics Assistantships  
A number of full-time assistantships are available for the fall semester and for four quarters and a cash stipend. It is planned that graduate assistants will complete the master's degree in this time period and that in the assistantship the graduate student will participate in a variety of research, instructional and guidance services, and professional writing. For additional information and the procedures of application interested individuals should write the department chairman.

Department of Psychology Assistantships  
A number of full-time assistantships are available for the fall semester and for four quarters and a cash stipend. It is planned that graduate assistants will complete the master's degree in this time period and that in the assistantship the graduate student will participate in a variety of research, instructional and guidance services, and professional writing. For additional information and the procedures of application interested individuals should write the department chairman.

OBJECTIVES OF THE GRADUATE PROGRAM  
The primary objective of the graduate program is to provide the student with a research experience and to prepare him for a career in research or in a related field. The program is designed to provide the student with a broad background in the field of study and to provide him with the opportunity to work with a faculty member in a research laboratory. The program is also designed to provide the student with the opportunity to attend seminars and to participate in departmental activities. The program is designed to provide the student with the opportunity to attend conferences and to participate in professional activities. The program is designed to provide the student with the opportunity to attend workshops and to participate in professional development activities. The program is designed to provide the student with the opportunity to attend colloquia and to participate in professional development activities. The program is designed to provide the student with the opportunity to attend symposia and to participate in professional development activities. The program is designed to provide the student with the opportunity to attend lectures and to participate in professional development activities. The program is designed to provide the student with the opportunity to attend seminars and to participate in professional development activities. The program is designed to provide the student with the opportunity to attend conferences and to participate in professional development activities. The program is designed to provide the student with the opportunity to attend workshops and to participate in professional development activities. The program is designed to provide the student with the opportunity to attend colloquia and to participate in professional development activities. The program is designed to provide the student with the opportunity to attend symposia and to participate in professional development activities. The program is designed to provide the student with the opportunity to attend lectures and to participate in professional development activities.



LIFE SCIENCES BUILDING  
WALLA WALLA COLLEGE —

COLLEGE PLACE, WASHINGTON

PHILLIP R. BALSIGER A.I.A. ARCHITECT

The Life Sciences Building furnishes complete teaching facilities for Biology and Home Economics Departments and research space for Biology and the Human Dynamics Research Institute. Included are classrooms varying in size from seminar rooms to an amphitheater, offices for staff and graduate students, research and teaching laboratories. Conditions of temperature, light, and humidity can be controlled in rooms and chambers for plant and animal growth. A lounge and banquet area serve as a setting for demonstrations and banquets in the Home Economics Department.

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# GRADUATE PROGRAM

**T**HE Graduate Division offers master's degree programs in the departments of Biological Sciences and Education. The various 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.

## ADMISSION TO GRADUATE STUDY

Applicants for admission to the Graduate Division shall have been graduated from a recognized four-year college or university, and shall have completed a basic background of undergraduate work in the proposed field of graduate study. The applicant should file completed graduate application forms and *two* official transcripts of all work taken on the collegiate level with the Registrar 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 in the Registrar's Office.

Admission as graduate students to the Graduate Division to pursue the master's degree is determined by the Graduate Council of the College upon the recommendation of the Biology or Education and Psychology departments.

## ADMISSION REQUIREMENTS OF THE MASTER'S DEGREE PROGRAM

1. A satisfactory score on the Graduate Record Aptitude test, or other tests approved by the Graduate Council.
2. A minimum cumulative grade-point average of 2.75 is required either on the last 96 credits toward the baccalaureate degree or on the total undergraduate program.

3. Applicants who do not meet the grade-point average entrance requirements may apply as postgraduate students. Upon the completion of at least 12 approved credits at an accredited institution with 3.00 grade-point average, application to enter the master's degree program will be considered. These credits do not apply toward the master's degree requirements.
4. Students who meet the grade-point average for entrance to the master's degree program but who register as postgraduates may not apply the credits toward the master's degree.
5. A maximum of 12 quarter credits of graduate work taken at other recognized institutions may be approved for transfer toward the master's degree. Up to nine of these credits may be by extension if acceptable for master's degree work at the school offering the extension work.
6. At the conclusion of 12 credits of work toward the master's degree in the Department of Education and Psychology, the student must submit a complete course program to the Graduate Council for approval. The Biology Department may require additional courses to be taken before submission of the proposed program. Failure to have the course outline approved at the required time may result in the loss of credits. A student is not a candidate until the program has been approved.

## **NON-MASTER'S DEGREE PROGRAMS**

1. Students who have been graduated from an accredited college or university may apply as postgraduate students taking courses toward certification, the fifth year, special credentials, or additional course work provided they maintain a C average.
2. Students who wish to enter the master's degree program should apply as outlined above.

## **GRADUATE CREDIT FOR SENIORS**

A senior who is within 12 credits of completing the requirements for the baccalaureate degree and who otherwise meets the admission requirements of the Graduate Division, may apply to Graduate Council for graduate work.

## **REGISTRATION**

The Chairman of the department, or an assigned adviser, will assist the student in selecting the courses for the first quarter in residence and in planning the program of study for the degree. The approval of the Chairman of the department, or the adviser, is required for all courses used in meeting the master's degree requirements.

The normal load is 12 credits per quarter. Any course load above this amount must be approved by the Graduate Council. Students engaged in part-time employment must confer with their adviser and limit their course load proportionately.



## CHANGES IN REGISTRATION

Changes in registration require the approval of the departmental graduate adviser. A student withdrawing from college or an individual course must file an *official drop* voucher with the Registrar's Office. During the first seven weeks of any quarter, the student may withdraw from a course and receive a W. Withdrawals after this time will result in the recording of a Wf unless exception is granted by the Academic Dean. Credits for which Wf is received are included in calculating the grade-point average.

## COURSE NUMBERING

Courses numbered 500 or above are primarily for graduate students. Courses numbered 400-499 are open to both upper division undergraduate and graduate students. Certain courses numbered 350-399 may be included in the graduate program on approval of the Graduate Council.

## SCHOLARSHIP REQUIREMENTS

Students wishing to qualify for the master's degree must maintain a cumulative grade-point average of 3.00 (B) or higher on all course work taken toward the master's degree including deficiency courses. Grades below C are regarded as unsatisfactory and are not accepted for graduate credit. Grades of all courses included on the graduate program will be included in computing the grade-point average.

The following system of grades and grade-point values is used in the Graduate Division:

A—	4 grade points per credit
B—	3
C—acceptable	2
D—unsatisfactory	1
F—Failure	0

## TRANSFER OF GRADUATE CREDIT

A maximum of 12 quarter credits of graduate work taken at other recognized institutions may be applied toward the master's degree. Acceptance of such work, however, does not reduce the 30-hour residence requirement of the Graduate Division. Correspondence credit or credit by examination is not accepted.

## RESPONSIBILITIES OF THE STUDENT

The graduate student is responsible for a complete knowledge of all regulations and procedures as published in this Bulletin. The student should 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. See page 21. Failure to do so may result in unnecessary delay or interruption of graduate study.

## LIBRARY

The College Library is a vital part of the education program at Walla Walla College. The building, completed in 1944, is convenient and well

planned. Reading room accommodations, the open-shelf system, seminar and conference rooms, and a browsing room contribute to the study and enjoyment of books. A microfilm reader and a microcard reader make accessible microfilmed, scholarly material. The Library contains over 83,000 bound volumes and over 23,000 pamphlets. An average of 2,500 volumes is accessioned annually. The Library receives 600 current periodicals regularly and also has a classified file of several thousand mounted pictures. All these materials are adequately catalogued by modern methods, and periodical indexes and other bibliographical aids are available. Resources in other libraries are available to students and faculty members through the Library's membership in the Pacific Northwest Bibliographical Center, which serves as a clearinghouse for interlibrary loans.

## **INSTRUCTIONAL MATERIALS CENTER**

Instructional materials of many types are available in the Smith Hall Center. Elementary and secondary textbooks, samples of workbooks, syllabi, teaching units and sample lesson plans are cataloged and readily accessible. A large children's library book selection is included in the area. Vertical file materials contain vocational guidance and career brochures, test samples and materials catalogs. Film strips, records, slide films and teaching kits with realia are available for teaching purposes.

## **AUDIO-VISUAL SERVICES**

This portion of the Center functions as a service unit for the entire campus and by arrangement, some materials and equipment may be checked out to nearby schools. Complete photographic facilities permit the preparation of multi-media teaching aids. Professional direction of trained technicians is provided. Requests for consultation on audio-visual problems are invited.

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# DEGREE REQUIREMENTS

**T**HE basic philosophy of the Graduate Division of the College is that graduate study should be planned in reference to the individual interest and needs of the student. In planning the program of study the student's experience, future objectives, personal qualifications, and previous academic preparation are also considered. The importance of careful planning and close cooperation on the part of the student and the adviser is emphasized.

The general requirements for the master's degree programs in Biological Sciences and Education follow.

## GENERAL REQUIREMENTS

The master's degree may be conferred upon a student who has received regular admission to the Graduate Division, who satisfactorily completes a program of study approved by the Graduate Council, who has been advanced to candidacy for degree, and who successfully completes all examinations required by his department and the Graduate Division. A student is not eligible for the master's degree until all above requirements and procedures have been completed.

## COURSE REQUIREMENTS

The completion of a minimum of 45 credits in approved graduate courses, with a cumulative grade-point average of at least 3.00 (B), is required. The selection of courses is made in counsel with the adviser, and approved by the Graduate Division.

All graduate students seeking the master's degree are required to complete satisfactorily Methods of Research (Ed. 561, or Biol. 453) for the master's degree. A minimum of 24 credits must be earned in courses numbered 500 or above for the Master of Arts Degree.

## BULLETIN

The student's degree candidacy program must be based on the Graduate Bulletin in effect at the time the program is presented to the Graduate Council. Refer to paragraph six under Admission Requirements of the master's degree program.

## **RESIDENCE**

Three quarters in residence are required. Students working toward the master's degree must earn a minimum of 30 of the required 45 credits in residence.

All degree requirements must be completed within six calendar years after the candidate's program is approved by 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.

## **PROGRAM OF STUDY**

During the first quarter of graduate study, the student, under the direction of the adviser, will prepare a complete program of study for the Graduate Council for approval. This program of study shall include all courses proposed in meeting the degree requirements, and normally should be approved by the Graduate Council before the second quarter of graduate study.

## **ADVANCEMENT TO MASTER'S DEGREE CANDIDACY**

Admission merely constitutes permission to register for course work and does not imply degree candidacy.

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

1. Completion of a minimum of 12 credits of graduate work in approved courses with a grade-point average of 3.0, demonstrating ability to do work of a graduate character.
2. Completion of graduate guidance examinations, including required departmental examinations.
3. Provision for removal of any undergraduate deficiencies which may have existed.
4. Submission of the "Application for Degree Candidacy and Proposed Program of Courses" form to the Graduate Study Office outlining a master's degree study program approved by the department concerned.
5. Approval by the Graduate Council. Approval for master's degree candidacy indicates that the Graduate Council and the departments concerned encourage the candidate to work for the master's degree. The degree is granted only after successful completion of the approved program of studies within the regulations of the College. After the program is approved by the Graduate Council, no major changes may be made without the prior approval of the Chairman of the Department, the Chairman of the Graduate Council and the Registrar.

## **THESIS REQUIREMENTS**

A thesis demonstrating ability to conduct research in a systematic and scholarly manner must be presented by the candidate for the Master of Arts Degree. The thesis is planned with and approved by the student's adviser. Copies of the thesis shall be submitted to the adviser at least one

week prior to the final examination. An abstract of a maximum of 300 words in length shall accompany each copy of the thesis. Approved copies of the thesis and the abstract are kept on permanent file in the College Library and the respective department.

### **GRADUATE GUIDANCE EXAMINATIONS**

Students desiring graduate degree status must have taken the Graduate Record Examination or other tests approved by the Graduate Council before advancement to degree candidacy. They must also complete preliminary examinations as required by the department, which may consist of:

1. A test of general academic background.
2. A test of knowledge in the student's major field.
3. A test of ability to write coherently and correctly.

### **COUNSELING**

The department adviser will assist the student in planning his graduate program.

After master's degree candidacy has been achieved, a master's degree committee is appointed by the department chairman to:

1. Counsel the candidate in his study program.
2. Direct and supervise the candidate's research.
3. Direct the candidate in preparing for his examinations.
4. Arrange, conduct, and appraise the examinations.

### **FINAL EXAMINATIONS**

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

1. The examination should be completed at least two to four weeks before commencement.
2. It is the candidate's responsibility to schedule his examination with his committee chairman; the committee chairman notifies the Graduate Study Office immediately of each examination scheduled.
3. The examination is conducted by the chairman of the candidate's committee. Success or failure in the examination is determined by the 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 this examination may, upon recommendation of the adviser and the approval of the chairman of the Graduate Council, be granted a second examination after a lapse of at least one quarter. The second examination is final.

### **CONFERMENT OF DEGREE**

The order form for the master's degree must be filed with the Graduate Study Office prior to the beginning of the final quarter.

Students are required to participate in the graduation exercises. Permission to receive the master's degree *in absentia* is granted only by the President of the College. The absentia fee is \$35.

## SUMMARY OF GRADUATE DIVISION PROCEDURES

The following procedures are outlined for the guidance of graduate students wishing to qualify for the master's degree. The student is expected to assume initiative and responsibility for following these procedures. Failure to follow these in their proper sequence may result in delay or interruption in completing the program of graduate study.

1. Submit *two* official transcripts of undergraduate and graduate credits earned at other colleges to the Registrar and apply for admission as a graduate student.
2. Submit Graduate Record Examination results.
3. Write the graduate guidance examinations as required.
4. Report to the Chairman of the major department for assistance in planning a program for the first quarter and for assignment of a graduate adviser.
5. After completion of 12 quarter credits of graduate work, and in conference with the department adviser, prepare the proposed program of graduate study.
6. After receiving the letter of acceptance from the chairman of the Graduate Council as a master's degree candidate, confer with the chairman of the major department and the adviser to complete the appointment of the graduate study committee.
7. Secure approval of the thesis topic, if required, from the adviser.
8. Complete the written comprehensive.
9. Prior to the beginning of the final quarter, make application for master's degree and make arrangements for cap and gown in the Graduate Study Office.
10. Schedule final master's degree examination with adviser at beginning of final quarter.
11. Present the copies of the thesis for committee use to the adviser at least one week before the final oral examination.
12. Make final financial arrangements at the Business Office.
13. Present three copies of the officially approved and typed thesis to the Graduate Study Office.
14. Participate in graduation ceremony.



### W. I. SMITH HALL

Pictured are two views of W. I. Smith Hall, a three-story structure of reinforced concrete frame with brick masonry occupied in the summer of 1965 and dedicated on August 22. The building provides facilities for the department of education: classrooms, conference and testing rooms, laboratories, Instructional Materials Center, Audio-Visual services, education staff offices, and a child psychology seminar with one-way glass into an elementary education classroom.

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## DEPARTMENTS OF INSTRUCTION

**I**NFORMATION concerning course descriptions and times courses are offered may be obtained by referring to the current annual bulletin and class schedule, respectively. Courses numbered 500 or above are primarily for graduate students. Courses numbered 400 to 499 are open to both upper-division undergraduate and graduate students. Certain courses numbered 350 to 399 may be included in the graduate program on approval of the Graduate Council. These cannot constitute more than one-third (15 credits) of the total requirements, and no grade below a "B" is acceptable for graduate credit in such courses.

### BIOLOGICAL SCIENCES

The Department of Biological Sciences offers a master's degree with a major in biology. Supporting areas are required to complete the educational background. One summer's attendance at the Marine Biological Station is expected. Biol. 352, 453 are required.

The department offers courses in zoology and botany on the main campus and at the Biological Station near Anacortes, Washington.

The specific objectives of the Department of Biological Sciences in 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 in government and in industry.

### COURSES

**401. PLANT PHYSIOLOGY.** A course designed to cover the principles of physiology of plants in general. Prerequisite: 271. One laboratory per week. Four credits; autumn.

**403. ORNITHOLOGY.** A systematic study of native birds of North America, with emphasis on identification, migration, geographical distribution, habits and life histories. Two laboratories per week. Four credits; spring.

**405. GENERAL ENTOMOLOGY.** A study of insect morphology, physiology, ecology, and control. One laboratory per week. Four credits; winter.



411. **PLANT ANATOMY.** 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. Prerequisite: 271. One laboratory per week. Four credits; winter.

424. **HERPETOLOGY.** A systematic study of amphibians and reptiles with emphasis on natural history and ecology. Two laboratories per week. Four credits; autumn.

426. **SYSTEMATIC BOTANY.** Principles of classification of plants with emphasis on the angiosperms. Two laboratories per week. Four credits; spring.

427. **COASTAL FLORA.** A study of the principles of classification and of the ecological relationships of the vascular plants of the Puget Sound area. Special emphasis is given to the salt marshes, fresh-water pond, estuarine, grassland, and forest habitats of the islands and mainland. Four credits; summer. (WWC Marine Biological Station.)

429. **LIMNOLOGY.** 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. Four credits; summer (WWC Marine Biological Station.)

442. **MICROTECHNIQUE.** A course designed to cover the important methods of making microscope slides. Two laboratories per week. Three credits; autumn.

444. **MAMMALOLOGY.** A systematic study of mammals with emphasis on natural history and ecology. Two laboratories per week. Four credits; autumn.

446. **GENERAL ECOLOGY.** 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. Four credits; spring.

447. **PARASITOLOGY.** A systematic study of the morphology, life cycle, and host-parasite relationships of protozoan, helminth, and arthropod parasites. Two laboratories per week. Five credits; autumn.

449. **VERTEBRATE HISTOLOGY.** The microscopic anatomy of vertebrate cells, tissues and organs including reference to their functions. Two laboratories per week. Four credits; spring.

451, 452. **INVERTEBRATE ZOOLOGY.** A study of the biology of the invertebrates. The first half of the course includes the organisms through the pseudocoelomates; the second half comprises the eucoelomates. Four credits each term; summer (WWC Marine Biological Station).

453. **RESEARCH METHODS III.** 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. One credit; spring.

462. **ICHTHYOLOGY.** A systematic study of the fishes found in Puget Sound, with a survey of the fishes of other waters. Four credits; summer (WWC Marine Biological Station).

463. **MARINE BOTANY.** A systematic study of plants found in Puget Sound, with a survey of marine plants from other areas. Four credits; summer (WWC Marine Biological Station).

464. **ANIMAL BEHAVIOR.** A comparative study of the behavior of animals with emphasis on an experimental analysis of behavior. A research project will be required. Four credits; summer (WWC Marine Biological Station).

465. **BACTERIOLOGY.** 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. Five credits; winter.

466. **SYSTEMATIC ENTOMOLOGY.** A study of the principles of taxonomy as applied to entomology. Laboratory work emphasizes recognition of orders and families, with special problems on the specific level. Course 405 recommended. Two laboratories per week. Four credits; spring.

467. **BIOLOGICAL OCEANOGRAPHY.** A study of physical, chemical and geological effects on marine organisms. Four credits; summer (WWC Marine Biological Station).

468. **COMPARATIVE PHYSIOLOGY.** A comparative study of the physiology and life processes of animals with emphasis on invertebrates. Prerequisite: 392, 393. Recommended prerequisite: 461. Four credits; summer (WWC Marine Biological Station).

470. **BIOPHYSICS.** An introductory course emphasizing the physical aspects of living organisms studied by the experimental and conceptual methods of physics with application to marine life. Four credits; summer (WWC Marine Biological Station).

477, 478, 479. **SPECIAL PROBLEMS IN BIOLOGICAL SCIENCE.** Directed, independent 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. Permission from the chairman of the department required. One to three credits any quarter. Maximum, three credits. Autumn, winter, spring.

482. **PHILOSOPHY OF ORIGINS AND SPECIATION.** 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. Three credits; winter.

501. **RESEARCH IN BIOLOGY.** 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 credits eight.

502. **GENETICS AND EVOLUTION.** Detailed study of the variability of the genetic mechanism as the latter relates to speciation. Processes of significance in species formation at the organism and population levels will be considered. Prerequisite: 322. Three credits; spring.

504. **MORPHOLOGY OF PLANTS.** An advanced study of the type forms of the divisions of the plant kingdom. One laboratory per week. Four credits; spring.

510. **GRADUATE SEMINAR.** Presentation of topics and discussion of current research in specific areas of biology. One credit; any quarter. Maximum: five credits.

512. **PRINCIPLES OF TAXONOMY.** A course designed to give the student a working knowledge of the rules of nomenclature, the factors considered in classification, the preparation of synonymies and keys, and new methods for determining relationships. Four credits; autumn.

514. **SYMBIOSIS.** 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. Four credits; autumn.

516. **ARTHROPOD VECTORS.** Vectors and other insects of medical import to humans are covered. The host-parasite relationships as well as preventive and control methods in tropical and temperate regions are considered. Prerequisite: 447. Four credits; winter.

519. **FOREST ENTOMOLOGY.** A study of economically important forest insects with methods of control. Practical field experience is stressed. Prerequisite: 405. One laboratory per week. Four credits; spring.

522. **CELLULAR BIOLOGY.** Current knowledge and research in the areas of cell physiology, biochemical genetics, bacteriological genetics, and radiation biology will be considered. Prerequisite: 392, 393. Five credits; winter.

524. **MARINE INVERTEBRATES.** An advanced study of invertebrate animals, with emphasis on marine forms. Individual research projects are required. Four credits; summer (WWC Marine Biological Station).

539. **HELMINTHOLOGY.** A detailed study of the more common helminth parasites of animals is undertaken. Emphasis is given to current areas of research in helminthology. Basic techniques of importance in laboratory work with helminths are covered. Prerequisite: 447. Two laboratories per week. Four credits; autumn.

541. **BIostatISTICS.** Practice and theory in the use of statistical methods in quantitative biology. Four credits; autumn.

545. **THESIS.** 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. Eight credits.

## DEPARTMENT OF EDUCATION AND PSYCHOLOGY

The Department of Education and Psychology offers two Master Degree programs—the Master of Arts, a thesis program, and the Master of Education, a non-thesis program. The degrees permit enrichment for teaching through liberal course election in the areas of Administration, Guidance, Elementary Teaching, Teacher-Librarianship, Junior High Specialization and Secondary Teaching.

In addition to the general objectives of the Graduate Division, the following are specific objectives of the Department of Education:

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

<b>Basic requirements</b>	20 credits
Methods of Research	
Thesis	
Philosophy of Education	
Psychological and Sociological Foundations	
<b>Area of Specialization</b>	15
<b>Electives with advisement</b>	10
	<hr/>
	45

24 credits must be on the 500 level.

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

### MASTER OF EDUCATION

<b>Basic requirements</b>	9 credits
Methods of Research	
Philosophy of Education	
Psychological and Sociological Foundations	
<b>Electives with advisement</b>	36
Content course elections must be	<hr/>
from not more than two related areas	45

Two-thirds of the minimum 45 credits to be 400 level or higher with no credit below the 350 level.

One or more years of validated satisfactory teaching experience.

All candidates must qualify for a regular 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 degrees must be planned with and approved by the departmental adviser.

## TEACHING CERTIFICATION

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

The course offerings provide for currently available teaching certificates from the General Conference Department of Education. Information concerning specific certificates is available from the certification consultant.

### Provisional Certificates

#### Elementary Grades

Graduation with a Bachelor of Science with a major in elementary education entitles the student to the provisional teaching certificate, a license to teach in the schools of Washington for three years. It is renewable for an additional three-year period upon the completion of a minimum of 12 quarter credits and one year of successful teaching.

#### Secondary Grades

Candidates for the provisional certificate must complete the basic requirements for a Bachelor of Science or Bachelor of Arts degree and the following specific courses or their equivalent:

- 110 Philosophy of Christian Education
- 121, 122 General Psychology
- 210 Introduction to Education
- 220 Educational Psychology
- 430 Educational Evaluation
- 436 Adolescent Psychology
- 460 Directed Teaching
- 470 Methods and Materials of Instruction
- 471, 472, 473 Methods Course
- 446 History of the Pacific Northwest

### Standard Certificate — Fifth Year

To be recommended for the Washington standard certificate, the candidate must fulfill the following requirements:

1. Hold a valid provisional certificate
2. Complete two years of successful teaching
3. Complete 45 quarter credits in an approved program beyond the bachelor's degree.

Of the 45 quarter credits, 22½ credits must be in residence; 30 credits may be earned prior to the first year of teaching; a maximum of 12 credits may be earned by correspondence and/or extension study. No correspondence work is applicable to the master's degree.

By careful planning and counseling, many students are able to complete the requirements for the master's degree at the same time they are completing the standard certificate requirements.

### Principal's Credential

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

In addition to the teacher certification programs currently in force, programs are being developed to provide for the following certification:

**Oregon:** Secondary School Principal  
Elementary School Principal  
Elementary or Secondary School Principal  
Elementary Certificate 1-8  
Secondary Certificate 9-12  
Special Subjects (Music, Industrial Arts)

**Idaho:** Secondary School Principal  
Elementary School Principal  
Advanced Secondary  
Standard Secondary  
Advanced Elementary  
Standard Elementary  
Guidance Certificate

## COURSES IN EDUCATION AND PSYCHOLOGY

Ed. 404. **HISTORY OF EDUCATION.** A survey of the history of education from early times to the present. Three credits.

Ed. 426. **EDUCATIONAL GUIDANCE.** An introduction to the basic functions of guidance and a study of organizational patterns. Prerequisite: 121, 122. Three credits.

Psych. 431. **PSYCHOLOGY OF EXCEPTIONAL CHILDREN.** Characteristics and problems of all types of exceptional children with consideration of essential educational adaptation. Prerequisite: 121, 122, 123. Three credits.

Psych. 435. **CHILD PSYCHOLOGY.** Principles of growth as related to various phases of human development during the preadolescent years: physical, mental and emotional. Prerequisite: 121, 122. Three credits.

Psych. 436. **ADOLESCENT PSYCHOLOGY.** Principles of growth as related to various phases of human development during the adolescent years: physical, mental, and emotional. Prerequisite: 121, 122. Three credits.

HPE. 441. **SCHOOL HEALTH EDUCATION.** See Health & PE.

Psych. 444. **SOCIAL PSYCHOLOGY.** A study of personality patterns that function in the interpersonal and intergroup life into which all human beings are born, and within which they develop and mature. The course is concerned with human behavior, attitudes, and processes of the phenomena of communication, suggestion, conflict, accommodation, assimilation, and socialization. Three credits.

Ed. 461. **METHODS OF AUDIO-VISUAL EDUCATION.** A survey of the methods of instruction through the use of audio-visual aids. The course provides training in equipment utilization, integration of techniques into instructional practices and selection and evaluation of audio-visual media. Two credits.

Ed. 462. **INSTRUCTIONAL AIDS: PRODUCTION.** Designed for teachers, audio-visual directors and others interested in laboratory experience in production of instructional aids; emphasis on course-of-study implementation through production techniques feasible at the local level. Prerequisite: Ed. 461 or equivalent. Two credits.

Ed. 477, 478, 479. **SPECIAL PROBLEMS IN EDUCATION.** Directed, independent 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 to students preparing for teacher certification. Permission from the chairman of the department is required. One to three credits any quarter. Maximum, three credits.

Ed. 483. **GROUP TESTING.** A study of the methods and interpretation of group tests including classroom testing for the elementary and secondary school. Two credits. Prerequisite: Psych. 430.

Ed. 484. **WORKSHOP.** Short-term group instruction with all-day sessions (two or three weeks). Workshop organization utilized to provide major emphasis upon specific projects of local or international needs. Three credits.

489. **VOCATIONAL GUIDANCE.** A study of current materials and trends in educational and vocational guidance. Three credits.

Ed. 490. **TEACHING OF HIGH SCHOOL READING.** Basic principles of reading instruction; methods, materials, and organization of the developmental and corrective reading programs in high school. Three credits; summer.

## GRADUATE COURSES

Ed. 500. **GRADUATE SEMINAR.** An orientation to graduate study. Required of all master's degree candidates. No credit.

Psych. 501. **STATISTICS IN EDUCATION AND PSYCHOLOGY.** Statistical procedures and interpretations particularly as applied to research in education, psychology and related fields. Three credits. Prerequisite: Psych. 390.

Ed. 504. **ELEMENTARY SCHOOL CURRICULUM.** A study of the elementary school curriculum, including objectives, essentials of a good program, varying curriculum patterns and appraisal of current practices. Three credits.

Ed. 508. **SECONDARY SCHOOL CURRICULUM.** Overview of the secondary school curriculum, with emphasis on the various subject fields; organization of the school for curriculum development; educational objectives; the course of study; evaluation of the secondary school curriculum. Three credits.

Ed. 511. **LITERATURE IN THE SECONDARY SCHOOL.** A survey of literature suitable to grades 7-12 with attention to evaluation, selection, authors, illustrators, and publishers. Three credits.

Ed. 515. **COUNSELING AND GUIDANCE.** Principles and techniques of individual and group counseling. Prerequisite: Ed. 426 or equivalent. Three credits.

Psych. 521. **PSYCHOLOGY OF LEARNING.** The course includes analysis of the mechanisms involved in the learning process. The physiological and psychological bases for functional learning are discussed, and the experimental evidence supporting psychological hypotheses is reviewed. Three credits.

E. 522. **PHILOSOPHY OF EDUCATION.** 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. Three credits.

Ed. 525. **EDUCATION IN THE TWENTIETH CENTURY.** Historical background of modern education with emphasis on trends and developments in the twentieth century. Three credits.

Ed. 526. **SCHOOL FINANCE.** A course designed for administrators, emphasizing origin and disbursement of school funds derived from tax sources and other revenues. Techniques of budget construction are studied and a general overview is given of the principles of financing education. Three credits.

Ed. 527. **SCHOOL PLANNING AND CONSTRUCTION.** 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. Three credits.

Psych. 531. **INDIVIDUAL TESTING—BINET.** A course designed to familiarize the student with the Stanford-Binet Intelligence Scale, its administration and interpretation. Arrangements should be made through the department chairman. Three credits.

Psych. 532. **INDIVIDUAL TESTING—WECHSLER.** A course designed to familiarize the student with the Wechsler Intelligence Scales, their administration and interpretation. Arrangements to enroll in the course must be made through the departmental chairman. Prerequisite Ed. 430. Three credits.

Ed. 535. **TEACHING OF REMEDIAL READING.** Diagnostic and remedial reading techniques, how to recognize reading difficulties and improve reading skills. Laboratory experience required. Four credits.

Ed. 539. **SUPERVISION.** For principals, classroom teachers or those planning to be supervisors. Problems, responsibilities, privileges and duties of both teacher and supervisor, and the improvement of teachers in service through a comprehensive program of supervision. Three credits.

Ed. 544. **ADMINISTRATION OF THE ELEMENTARY SCHOOL.** Organization, supervision, and administration of elementary schools. Three credits.

Ed. 549. **MENTAL HEALTH IN EDUCATION.** Physiological and psychological factors related to emotional maturity. Identification of mental



health activities. Individual mental health, classroom climate, patterns of acceptance and rejection. Three credits.

Ed. 551. **ADMINISTRATION OF THE SECONDARY SCHOOL.** Problems and procedures in the organization of secondary schools. Three credits.

Ed. 556. **CURRICULUM PLANNING.** 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. Three credits.

Ed. 560. **ADMINISTRATIVE PRACTICUM.** Professional laboratory experience for candidates for an administrative credential. The course is designed to involve each candidate in a variety of practical administrative experience and to assist in his successful induction into school leadership. Five or ten credits; any quarter.

Ed. 561. **METHODS OF RESEARCH.** Procedures in the selection and evaluation of research projects, and techniques in the analysis of research data. Three credits.

Psych. 564. **ABNORMAL PSYCHOLOGY.** A study of behavioral deviations, therapeutic measures, and theories. Three credits.

Psych. 565. **PRACTICUM IN SCHOOL COUNSELING.** Practical experience in various guidance techniques under supervision of qualified school counselors. Prerequisite: departmental approval. Five or ten credits, arranged.

Ed. 567. **COMPARATIVE EDUCATION.** A comparison of systems and philosophies of education in various parts of the world; emphasis on the role of cultural impacts. Three credits.

Ed. 570. **TOPICS.** Selected topics in education involving research and reports in addition to regular class activities. Three credits. Maximum, six credits.

Ed. 581, 582, 583. **PROFESSIONAL PROJECT.** Selected areas of advanced study involving reading and research. Formal report required. Two, four, or six credits any quarter. Maximum, six credits. Prerequisite: consent of department head and graduate standing.

Ed. or Psych. 584. **WORKSHOPS.** Short-term group instruction with all-day sessions (two or three weeks.) Workshop organization utilized to provide major emphasis upon specific projects of local or international needs. Three credits.

Ed. 590. **THESIS.** Eight credits; any quarter.

Ed. 591. **LITERATURE IN THE SECONDARY SCHOOL.** A study of the literature of the secondary school and its relation to the curriculum. Three credits.

## COURSES IN SUPPORTING DEPARTMENTS

Refer to the general bulletin for complete descriptions.

### Biblical Languages

- 441-442-443. HEBREW I. Three credits each quarter.  
451, 452, 453. HEBREW READING. One credit each quarter.  
461, 462. TEXTUAL CRITICISM OF THE NEW TESTAMENT. Two credits each quarter.  
463. TRANSLATION PROBLEMS. Two credits each quarter.  
477, 478, 479. SPECIAL PROBLEMS IN BIBLICAL LANGUAGES. One to three credits any quarter; maximum three credits.

### Business and Economics

411. STATISTICS. Three credits.  
414. BUSINESS MANAGEMENT. Three credits.  
431, 432, 433. ACCOUNTING PROBLEMS. Three credits each quarter.  
434. FUND ACCOUNTING. Three credits.  
439. AUDITING PROCEDURE. Three credits.  
441. INVESTMENTS. Three credits.  
442. CREDIT ADMINISTRATION. Three credits.  
453. HUMAN RELATIONS IN MANAGEMENT. Three credits.  
462. COMPARATIVE ECONOMIC SYSTEMS. Three credits.  
463. MONEY AND BANKING. Five credits.  
465. ECONOMICS OF FOREIGN TRADE. Three credits.  
477, 478, 479. SPECIAL PROBLEMS IN BUSINESS ADMINISTRATION. One to three credits any quarter; maximum three credits.  
492. SEMINAR. One credit.

### Chemistry

- 406, 407. BIOCHEMISTRY. Four credits, three credits.  
424. ORGANIC SYNTHESIS. Three credits.  
425. INORGANIC SYNTHESIS. Three credits.  
426. ORGANIC QUALITATIVE ANALYSIS. Three credits.  
429. ADVANCED ORGANIC CHEMISTRY. Two credits.  
461, 462, 463. ADVANCED ANALYTICAL CHEMISTRY. Three credits each quarter.  
477, 478, 479. SPECIAL PROBLEMS IN CHEMISTRY. One to three credits any quarter; maximum three credits.

### English

- 404, 405, 406. THE VICTORIAN PERIOD. Three credits any quarter.  
407, 408, 409. AMERICAN LITERARY MASTERS. Two credits each quarter.  
421, 422, 423. THE ROMANTIC PERIOD. Two credits each quarter.  
425. INTRODUCTION TO ENGLISH LINGUISTICS. Two credits.  
426. HISTORY OF THE ENGLISH LANGUAGE. Three credits.  
427-428-429. RESTORATION AND NEOCLASSIC LITERATURE. Two credits each quarter.  
441-442-443. OLD AND MIDDLE ENGLISH LITERATURE. Three credits each quarter.  
464, 465, 466. RENAISSANCE LITERATURE. Three credits each quarter.  
468. LITERATURE OF THE BIBLE. Three credits.  
491-492-493. SEMINAR. One credit each quarter.

## Health and Physical Education

403. LEADERSHIP IN CAMPING AND CAMPCRAFT. Two credits.  
420. COACHING OF PHYSICAL EDUCATION ACTIVITIES. Two credits.  
422. FOUNDATIONS OF PHYSICAL EDUCATION. Three credits.  
423. TESTS AND MEASUREMENTS IN PHYSICAL EDUCATION. One credit.  
424, 425, 426. ADVANCED ARTS AND CRAFTS. Two credits each quarter.  
431. ELEMENTARY SCHOOL HEALTH EDUCATION. Three credits.  
432. SECONDARY SCHOOL HEALTH EDUCATION. Three credits.  
451. ADMINISTRATION OF PHYSICAL EDUCATION. Three credits.  
477, 478, 479. SPECIAL PROBLEMS IN HEALTH AND PHYSICAL EDUCATION. One to three credits any quarter; maximum three credits.  
492, 493. SEMINAR. One credit each quarter.

## History, Political and Social Science

### History

- 404, 405, 406. HISTORY OF ENGLAND. Two credits each quarter.  
407, 408, 409. EUROPE SINCE 1815. Three credits each quarter.  
421, 422, 423. HISTORY OF RUSSIA. Two credits each quarter.  
424, 425. THE AMERICAN FRONTIER. Three credits each quarter.  
426. THE EARLY CHRISTIAN ERA. Three credits.  
427. THE LATE MIDDLE AGES. Three credits.  
428. THE RENAISSANCE. Three credits.  
429. THE REFORMATION. Three credits.  
446. HISTORY OF THE PACIFIC NORTHWEST. Three credits.  
447, 448, 449. TWENTIETH CENTURY AMERICA. Three credits each quarter.  
467, 468, 469. HISTORY OF LATIN AMERICA. Two credits each quarter.  
477, 478, 479. SPECIAL PROBLEMS IN HISTORY. One to three credits each quarter; maximum three credits.  
491, 492, 493. SEMINAR. One credit each quarter.

### Political Science

401. CONSTITUTIONAL INTERPRETATION. Three credits.  
402. WORLD POLITICS AND INTERNATIONAL RELATIONS. Three credits.  
414, 415, 416. AMERICAN DIPLOMATIC HISTORY. Two credits each quarter.  
424, 425, 426. POLITICAL HISTORY AND THEORY. Three credits each quarter.

### Social Science

442. PERSONALITY AND LEADERSHIP. Two credits.  
445. CURRENT SOCIAL PROBLEMS. Three credits.

## Industrial Education

447. HISTORY OF INDUSTRIAL ARTS. Two credits.  
477, 478, 479. SPECIAL PROBLEMS IN INDUSTRIAL EDUCATION.  
484, 485, 486. SPECIAL PROJECTS.  
488. SENIOR PROBLEM. One credit.

## Mathematics

- 411, 412, 413. **MODERN ALGEBRA.** Four credits each quarter.  
477, 478, 479. **SPECIAL PROBLEMS IN MATHEMATICS.** One to three credits any quarter; maximum three credits.

## Modern Languages

### Spanish

402. **SPANISH APPLIED LINGUISTICS.** Three credits.  
414, 415, 416. **SPANISH DIRECTED READING.** One to three credits each quarter.  
417. **ADVANCED SPANISH FOR TEACHERS.** Two credits.  
421, 422, 423. **SPANISH LITERATURE OF THE GOLDEN AGE.** Three credits each quarter.  
424. **SPANISH ESSAY.** Three credits.  
425, 426. **LATIN AMERICAN LITERATURE.** Three credits each quarter.  
480. **LINGUISTIC STUDY TOUR.** Eight credits.

### French

- 404, 405, 406. **FRENCH DIRECTED READING.** One to three credits each quarter; maximum six.

### German

403. **MODERN GERMANY AND ITS LITERATURE.** Three credits.  
411, 412, 413. **GERMAN DIRECTED READING.** One to three credits each quarter; maximum six credits.  
421. **GERMAN ROMANTICISM.** Three credits.  
422. **CLASSIC GERMAN LITERATURE.** Three credits.  
423. **ADVANCED GERMAN COMPOSITION AND CONVERSATION.** Three credits.  
477, 478, 479. **SPECIAL PROBLEMS IN MODERN LANGUAGES.** One to three credits any quarter; maximum three credits.

## Music

406. **COUNTERPOINT.** Three credits.  
409. **ORCHESTRATION.** Two credits.  
411, 412, 413. **COMPOSITION.** Two credits each quarter.  
431. **J. S. BACH.** Three credits.  
432. **MUSIC OF THE TWENTIETH CENTURY.** Three credits.  
433. **CHORAL LITERATURE.** Three credits.  
481, 482, 483. **SELECTED TOPICS IN MUSIC.** One to three credits any quarter; maximum three credits.

## Physics

- 411, 412, 413. **ATOMIC AND NUCLEAR PHYSICS.** Three credits each quarter.  
414, 415, 416. **EXPERIMENTAL PHYSICS.** One credit each quarter.  
417, 418, 419. **PHYSICS SEMINAR II.** One credit each quarter.  
421, 422, 423. **THEORETICAL MECHANICS.** Three credits each quarter.  
477, 478, 479. **SPECIAL PROBLEMS IN PHYSICS.** One to three credits any quarter; maximum three credits.

## Religion

- 402. MODERN DENOMINATIONS. Three credits.
- 403. WORLD RELIGIONS. Three credits.
- 411, 412, 413. THEOLOGY III. Two credits each quarter.
- 421. INTRODUCTION TO PHILOSOPHY. Two credits.
- 422. PHILOSOPHY OF RELIGION. Two credits.
- 423. CONTEMPORARY PHILOSOPHY. Two credits.
- 426. ESCHATOLOGY. Three credits.
- 427, 428. CHRISTIAN DYNAMICS. Two credits each quarter.
- 429. STUDIES IN CHRISTIAN DYNAMICS. Two credits.
- 441, 442, 443. PERSONAL EVANGELISM. Two credits each quarter.
- 444, 445, 446. BIBLICAL BACKGROUNDS. Two credits each quarter.
- 447, 448, 449. PUBLIC EVANGELISM. Two credits each quarter.
- 461, 462, 463. FIELD EVANGELISM. One credit each quarter.
- 464, 465, 466. NEW TESTAMENT EPISTLES. Two credits each quarter.
- 477, 478, 479. SPECIAL PROBLEMS IN RELIGION. One to three credits any quarter; maximum three credits.
- 491, 492, 493. SEMINAR IN RELIGION. One credit each quarter.

## Secretarial Science

- 408, 409. ADVANCED SECRETARIAL PROCEDURES. Three credits each quarter.
- 427. SHORTHAND REPORTING. Three credits.
- 428. DENOMINATIONAL REPORTING. Three credits.
- 448-449. MEDICAL TERMINOLOGY. Three credits each quarter.
- 463. LEGAL TERMINOLOGY. Three credits.
- 480. PROBLEMS IN SECRETARIAL SCIENCE. Two credits.
- 492. SECRETARIAL SCIENCE SEMINAR. One credit.

## Speech

- 401. INTRODUCTION TO SEMANTICS. Two credits.
- 422. SPEECH COMPOSITION AND ANALYSIS. Three credits.
- 443. PERSUASIVE SPEAKING. Three credits.
- 453. RHETORIC AND PUBLIC ADDRESS. Three credits.
- 477, 478, 479. SPECIAL PROBLEMS IN SPEECH. One to three credits any quarter; maximum three credits.
- 484. THE BASES OF SPEECH I. Three credits.
- 485. THE BASES OF SPEECH II. Three credits.
- 497, 498, 499. SEMINAR IN SPEECH. One credit each quarter; maximum three credits.