

Walla Walla College

Graduate Division 1964 - 1965

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 Adventist Colleges and Secondary Schools

Council of Member Agencies, Department of Baccalaureate and Higher Degree Programs of the National League for Nursing

American Council on Education National Commission on Accreditation

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

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FOR INFORMATION

Concerning general information, bulletins, application blanks, viewbooks, student handbooks, etc., write

The Registrar

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

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CALENDAR, 1964-65

AUTUMN QUARTER

September 20, 21, 22	Registration
September 23	
October 7	[2017년 1월 17일 전 18일 전
October 13	.Graduate Guidance Examinations
November 4	Last day to drop a class
November 25 (1:00 p.m.)-November	
(10:00 p.m.)	Thanksgiving Recess
December 16 (6:00 p.m.)	Quarter Ends
December 16 (6:00 p.m.)-January 3	
(10:00 p.m.)	

WINTER QUARTER

December 6-9	Registration
January 3	Registration of new students
January 4	Instruction begins, 7:30 a.m.
January 15	Last day to add a class
February 14	Last day to drop a class
March 17 (6:00 p.m.)	Quarter Ends
March 17 (6:00 p.m.)-March 22	(10:00 p.m.)Spring Recess

SPRING QUARTER

March 7-10	Registration
March 22	Registration of new students
March 23	Instruction begins, 7:30 a.m.
March 29, 30	Graduate Record Examinations
April 7	Last day to add a class
May 2	Last day to drop a class
June 4	Quarter ends
June 4 (8:00 p.m.)	Consecration
June 5 (11:00 a.m.)	Baccalaureate
June 6 (10:00 a.m.)	Commencement

ADMINISTRATION

BOARD OF TRUSTEES

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OFFICERS OF ADMINISTRATION

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ARTHUR W. SPOO, B. S.	Business Manager
ORPHA N. OSBORNE, B. A.	Registrar
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M. S. Culver, M. A.	Dean of Men
HELEN WARD EVANS, 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

W. H. Shephard, R. H. Brown, M. S. Culver, Helen Evans, H. L. Rasmussen, C. W. Shankel, A. W. Spoo.

GRADUATE COUNCIL

J. W. Rhodes, K. A. Aplington, G. W. Bowers, R. H. Brown, F. E. Meckling, Orpha Osborne, H. L. Rasmussen, Donald Rigby, W. H. Shephard, R. E. Silver, J. F. Stout.

THE GRADUATE FACULTY

Courses which may be applied towards the degree of Master of Arts 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. Students should consult department heads as follows:

APLINGTON, KENNETH A., Professor of English

B. A., 1935, Walla Walla College; M. A., 1942, University of Washington

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

HARE, GORDON B., Assistant Professor of Mathematics

B. A., 1951, Columbia Union College; M. S., 1954, Ph. D., 1964, University of Colorado HARTBAUER, ROY E., Assistant Professor of Speech

B. Th., 1950, Walla Walla College; M. A., 1961, 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

MECKLING, FRANK E., Professor of History

B. A., 1929, Columbia Union College; M. A., 1931, University of Maryland; Ph. D., 1950, University of California at Los Angeles

Mehling, J. G., Associate 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

RIGBY, DONALD W., Assistant Professor of Biology

B. A., 1950, La Sierra College; M. A., 1956, Walla Walla College

SILVER, ROBERT E., Professor of Education

B. A., 1948, Walla Walla College; M. A., 1950, Ed. D., 1956, University of Washington Sorenson, Agnes L., Professor of Modern Languages

B. A., 1923, Emmanuel Missionary College; M. A., 1929, University of Michigan

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

WEST, MELVIN K., Professor of Music

A. B., 1952, Emmanuel Missionary College; M. Mus., 1955, Redlands University; Mus. A. D., 1959, Boston University; F. A. G. O., 1957

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



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.

OBJECTIVES OF THE GRADUATE PROGRAM

 To provide an atmosphere which will stimulate intellectual curiosity and independent thinking.

2. To develop an appreciation of the value of research and an ac-

quaintance with basic research techniques.

To strengthen the professional competence of the individual in his area of specialization.

ASSEMBLY

Assembly is conducted twice weekly during the school year and once a week during the summer terms. The programs presented are educational in nature, and graduate students are encouraged to attend.

SABBATH OBSERVANCE

The seventh-day Sabbath is observed at Walla Walla College from sunset Friday to sunset Saturday, and the students on the campus are expected to conduct themselves in harmony with the sacred nature of the day. No instructional activities are conducted during these hours.

SOCIAL STANDARDS

The conduct and behavior of students should conform to the highest standards of the Christian tradition. Individuals whose personal ethics are inconsistent with the spirit and purposes of the College should not seek admission. Any student who is unwilling to act as a responsible member of a Christian community, or whose activities are inconsistent with the announced principles and standards of the College, places his status as a student in jeopardy. The dormitory students should acquaint themselves with the *Student Handbook* and adhere to its rules and regulations. The use of liquor and tobacco in any form is prohibited on the campus.

USE OF AUTOMOBILES

All students, whether living in the residence halls or in the community, who own or operate any type of motor vehicle (car, motorcycle, scooter, etc.) must register these within twenty-four hours after arrival at the College. Furthermore, it is required that all operators of motor vehicles carry public liability and property damage insurance. Evidence of this insurance must be shown at the time of registration and whenever requested.

Failure to comply with these regulations makes the student liable to a penalty of \$25. Regulations governing the use of automobiles by students are published in the *Student Handbook*; students are expected to become familiar with these regulations, since failure to comply with them may result in disciplinary action.

MEDICAL EXAMINATION

At the time of admission to the College, each new student is required to submit evidence of a standard physical examination, or to have such examination under the direction of the College physician. Approved forms are available in the Registrar's Office.

TUITION AND FEES

Tuition and fees in the Graduate Division are the same as the tuition and fees for undergraduate students. For complete information concerning finances, refer to Financial Information in the current College Bulletin.

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 which the individual is currently employed or the conference in which he will be employed upon completion of the year of study.

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. These loans can usually be worked out quickly after the need is presented.

Assistantships

A few assistantships are available to qualified graduate students. These assistantships, under the direction of college faculty members, provide partial tuition in return for work as readers, laboratory assistants, etc.

HOUSING FOR STUDENTS

Dormitory rooms are generally available to graduate students; suitable off-campus rooms and apartments are listed in the student finance counseling office at the College.

CAMPUS AND BUILDINGS

The College buildings are situated on a 55-acre campus dotted with maple and sycamore trees. Other buildings belonging to the College are located on adjoining lots of land, totaling 22 additional acres.

ADMINISTRATION BUILDING. The Administration Building is a three-story structure located in the center of the campus. This building houses the administrative offices, Student Association Center, and a number of classrooms, laboratories, and teacher offices.

BIOLOGY BUILDING. The Biology Building consists of a large lecture hall, six laboratory rooms, four teacher offices, four graduate-student research rooms, a library and seminar room, one photographic darkroom, a large stockroom, and a storeroom. The museum collections include thousands of specimens of mounted birds, mammals, insects, marine animals, fossils, plants, and smaller groups.

The Department of Biological Sciences operates the Walla Walla College Biological Station at Rosario Beach, Anacortes, Washington, on the Puget Sound.

BOWERS HALL. The Chemistry Department is housed in Bowers Hall, a two-story brick building located southwest of the quadrangle. The accommodations include two classrooms, five laboratories, two research laboratories, a library-seminar room, three offices, a stockroom, and a photographic darkroom.

CLARA E. ROGERS ELEMENTARY SCHOOL. The Rogers School, completed in 1952, is one of the more modern elementary school buildings in eastern Washington. The building has 27,000 square feet of floor space and contains 12 large classrooms, teachers' offices, library and administrative offices. Five and one-half acres of playground area adjoin the school to the south and west. These facilities provide an excellent experience for students in teacher training.

COLLEGE CHURCH. The College Church is a large, new brick structure done in modern architecture. It seats 2,500 worshipers and 150 choir members. The Casavant-Freres organ is a three-manual, five-division instrument with forty ranks of pipes. In addition to the church itself, there is a youth chapel and several large rooms for youth and children's Sabbath Schools.

COLUMBIA AUDITORIUM. Columbia Auditorium, a reinforced concrete gymnasium-auditorium with a seating capacity of over 2,000 persons, is equipped with a splendid pipe organ. The building serves the college community adequately as an auditorium and as a gymnasium. The large floor provides ample space for physical education activities, games and roller skating, while retaining the galleries for use of spectators.

E. C. KELLOGG HALL. Completed in 1958, this building contains food service facilities and the Home Economics Department, and is one of the most functional buildings of its type in the entire Northwest.

INDUSTRIAL EDUCATION BUILDING. The Industrial Education Department is housed in a composite building made up of four surplus units, located on the west side of the campus. Accommodations include two classrooms, two multi-activity laboratories, six unit laboratories, a darkroom for both photography and graphic arts, a project display room, a general office, and five teachers' offices.

KRETSCHMAR HALL. This building completed in 1963, is a reinforced concrete and masonry structure of 30,000 square feet, housing the departments of engineering, physics, and mathematics. In addition to classrooms, laboratories, and staff offices, the building contains a departmental library, computer room, radioactive isotope storage vault, and a science demonstration lecture hall seating 150.

LIBRARY. The College Library is a vital part of the educational 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 70,500 bound volumes and 5,000 pamphlets. An average of 2,500 volumes is accessioned annually. The Library receives 450 current periodicals regularly and also has a classified file of almost 1,500 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 Bibliographic Center, which serves as a clearinghouse for interlibrary loans.

RESIDENCE HALLS. Conard Hall offers comfortable accommodations for 400 women, together with such features as a large worship room done in church style, a recreation room, and attractive parlors. A modern communication system aids in making dormitory life delightful.

Sittner Hall, the men's residence, was erected in 1947. It houses 430 men, and is modern in every respect.

STUDENT HEALTH CENTER. A Student Health Center with a full-time registered nurse as director is maintained on the campus. Clinical and hospital facilities, consultation rooms, treatment rooms, and other necessary facilities are available for student use. Several physicians maintain regular office hours in the Student Health Center.

VOCATIONAL BUILDINGS. Several industries owned and operated by the College provide vocational training and also offer students opportunities for part-time employment while in college.



SMITH HALL

Teacher-Education Center

SMITH HALL. A three-story structure of reinforced cement frame with brick masonry, is scheduled for occupancy in 1965. The building will provide facilities for the department of education: classrooms, conference and testing rooms, laboratories, library, education offices, and a child psychology seminar with one-way glass into an elementary education classroom.

TEACHER CERTIFICATION—Fifth Year

In order to qualify for the Washington Standard Certificate, the teacher must have two years of successful teaching experience and 45 quarter credits of approved study beyond the bachelor's degree. For many students this study may be combined with a master's degree program. Consult the general College bulletin or the Chairman of the Department of Education for details.

GRADUATE PROGRAM

The Graduate Division offers programs leading to the Master of Arts degree 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

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 application forms and official transcripts of all work taken on the collegiate level with the Registrar of the College at least three weeks 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 to the Graduate Division does not imply advancement to candidacy for the degree. Students are advanced to candidacy for degree after demonstrating ability to do work of graduate character, and evidencing the necessary personal qualifications as adjudged by the members

of the faculty.

Admission is determined by the Chairman of the Graduate Council and the Admissions Committee of the College, and is based upon consideration of previous academic record, experience, personal qualifications, and plans for the future. Applicants who are admitted for graduate study are classified in one of the following categories:

Full Graduate Status

A person with a bachelor's degree from an accredited college whose final 45 quarter hours credits average B and who has satisfactory prerequisites for the proposed field of graduate study may be admitted to graduate status.

Conditional Graduate Status

A person with a bachelor's degree from an accredited college whose final 45 quarter hour credits do not average B (3.00), but whose average is not lower than 2.75, may be admitted to graduate standing with conditional status by the Chairman of the Graduate Council.

Unclassifed Status

Students who hold a bachelor's degree but who do not wish to pursue programs leading to the master's degree or who do not qualify for admission to such a program may be admitted by the chairman to study in the Graduate Division in an unclassified status. While in this status, the student may be restricted from enrolling in certain courses for which attainment of "classified" status is a prerequisite. Credits earned while in unclassified status may not be applied to the master's degree unless approved by the Graduate Council.

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 register for graduate work if recommended by the head of his department and approved by the chairman of the Graduate Council. For such registration a petition for graduate credit in excess of senior requirements must be filed. Approval of such petition will be granted only to students who at the same time are completing the requirements for the bachelor's degree. Students who are taking graduate and undergraduate courses concurrently cannot register for more than a combined load of sixteen credits. The master's degree may not be conferred until two full quarters have elapsed after receiving the baccalaureate degree.

REGISTRATION

After admission to the Graduate Division, the student should confer with the head of the department in which graduate study is proposed. The head 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 head of the department, or the adviser, is required for all courses used in meeting the master's degree requirements.

The normal course load is from 12 to 15 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 adviser and must be made during the first full week of instruction in the quarter. 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 300-399 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—superior	4 grade points per credit
B—good	3
C—satisfactory	2
D—unsatisfactory	1
F—failure	0

TRANSFER OF GRADUATE CREDIT

A maximum of 15 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 residence requirement of the Graduate Division. Correspondence credit or credit by examination is not accepted.

RESPONSIBILITIES OF THE STUDENT

Graduate students are 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 the 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.

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

DEGREE REQUIREMENTS

The 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 degree of Master of Arts 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 45 credits in approved graduate courses, including a minimum of 25 credits in the major field with a cumulative grade-point average of at least 3.00 (B), is required. The selection of a minor, or supporting courses, is made in counsel with the adviser, and in harmony with the basic philosophy of the Graduate Division.

All graduate students seeking the master's degree are required to complete satisfactorily Methods of Research (Ed. 561 or Biol. 491, 492, 493).

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

RESIDENCE

Three quarters in residence, or the equivalent, are required. Students working toward the Master of Arts 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 initial registration in the Graduate Division.

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, shall submit a complete program of study to 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

Advancement to master's degree candidacy is attained by fulfilling the following conditions:

- 1. Admission to full graduate status.
- Completion of graduate guidance examinations, including required departmental examinations.
- 3. Maintenance of at least a "B" graduate grade-point average.
- 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. This application should be filed prior to the completion of 15 credits of course work to avoid possible loss of credit.
- 5. Approval by the Graduate Council. Approval for master's degree candidacy indicates that the Graduate Council and the department concerned encourage the canditate 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 changes may be made without the prior approval of the Chairman of the department, the Chairman of the Graduate Council and Registrar.

THESIS REQUIREMENTS

A thesis demonstrating ability to conduct research in a systematic and scholarly manner must be presented by the degree candidate. Students majoring in Education may substitute a professional project, planned with and approved by the adviser. Two copies of the thesis or professional project shall be submitted to the chairman of the Graduate Council at least one week prior to the final examination. An abstract of approximately 300 words in length shall accompany each copy of the thesis or project. The copies of the thesis or professional project 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 before advancement to degree candidacy. They must also complete preliminary examinations as required 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

A faculty adviser is appointed for each graduate student by the chairman of the major department. This 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 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 comprehensive examination.
- 4. Arrange, conduct, and appraise the comprehensive examination.

FINAL COMPREHENSIVE EXAMINATIONS

Master's degree candidates must pass a comprehensive 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 weeks, but in no case later than one week, before commencement.
- 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
- Questions in the examination will be based upon the candidate's thesis and areas of study.
- 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 at 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.

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.

- Submit two transcripts of undergraduate and graduate credits earned at other colleges to the Registrar and apply for admission as a graduate student.
- 2. Report to the Graduate Study Office for establishment of graduate status.
- 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.
- 4. Write the graduate guidance examinations as required.
- 5. Prior to the completion of 15 quarter credits of graduate work, and in conference with the adviser, prepare the proposed program of graduate study. Normally no more than 15 quarter credits of graduate work may be counted toward the master's degree before the proposed graduate program and application for degree candidacy are submitted to the Graduate Office. (5 copies)
- After receiving the letter of acceptance 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.
- Secure approval of the thesis topic or professional project from the adviser.
- At the beginning of the final quarter make application for master's degree and make arrangements for cap and gown in the Graduate Study Office.
- 9. Schedule final master's degree examination with adviser.
- 10. Present the thesis or professional project report to the adviser at least one week before final oral examination.
- 11. Make final financial arrangements at the Business Office.
- 12. Present two copies of the finally approved and typed thesis or professional project report to the Graduate Study Office.
- 13. Participate in graduation ceremony.



Collecting Specimens at WWC's Biological Field Station, Rosario Beach

DEPARTMENTS OF INSTRUCTION

Information 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 300 to 399 may be included in the graduate program, on approval of the Graduate Council.

BIOLOGICAL SCIENCES

The Department of Biological Sciences offers a master's degree with a major in biology. Minors should be in some other science or in mathematics. Occasionally minors in other areas may be approved. One summer's attendance at the Biological Station is expected. Biol. 491, 492, 493 is 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:

- 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.
 - To provide a preparation for research careers in government and in industry.

COURSES

- 401. PLANT PHYSIOLOGY. A principles course designed to cover the physiology of plants in general. Prerequisite: 304. Four credits; winter.
- 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. (149)

- 404. **GENERAL ENTOMOLOGY.** A study of insect morphology, ecology, and classification. Two laboratories per week. Four credits; autumn. (156)
- 407. PHILOSOPHY OF SCIENCE. A study of origins of living things of special creation as opposed to evolution, the Flood, glaciation, problems of speciation, and distribution of plants and animals. Does not apply on a biology major. Three credits; autumn. (157)
- 409. PALEONTOLOGY. A study of plant and animal fossils, with a survey of the principles of geology. One laboratory per week. Four credits; spring. (159)
- 422. **GENETICS.** A study of the principles of inheritance in plants and animals. Four credits; winter. (162)
- 424. **HERPETOLOGY.** A systematic study of amphibians and reptiles with emphasis on natural history and ecology. Two laboratories per week. Four credits; autumn. (164)
- 425. MORPHOLOGY OF PLANTS. Detailed studies of the type forms of the Thallophytes, Bryophytes, Pteridophytes and Spermatophytes. One laboratory per week. Four credits; autumn. (106)
- 426. SYSTEMATIC BOTANY. Principles of classification of plants with emphasis on the angiosperms. Two laboratories per week. Four credits; spring. (166)
- 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 Biological Station.) (169)
- 442. MICROTECHNIQUE. A course designed to cover the important methods of making microscope slides. Two laboratories per week. Three credits; winter. (172)
- 444. MAMMALOGY. A systematic study of mammals with emphasis on natural history and ecology. Two laboratories per week. Four credits; autumn. (174)
- 446. **GENERAL ECOLOGY.** A course designed to cover the basic principles of ecology of plants and animals. Field trips to nearby areas illustrating these principles are a part of the laboratory work. Four credits; summer (WWC Biological Station). (176)
- 448. PARASITOLOGY. A systematic study of the morphology, life cycle, and the medical aspects of the protozoan, arthropod, and worm parasites of the vertebrates with more emphasis on human parasitology. Two laboratories per week. Five credits; winter. (177-178)
- 449. VERTEBRATE HISTOLOGY. The microscopic anatomy of vertebrate cells, tissues and organs including reference to their functions. Two laboratories per week. Four credits; spring. (179)
- 461. INVERTEBRATE ZOOLOGY. A study of the invertebrate animals of Puget Sound with emphasis on systematics and natural history. Four credits; summer (WWC Biological Station).
- 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 Biological Station). (182)

- 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 Biological Station). (183)
- 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 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. (185)
- 466. **SYSTEMATIC ENTOMOLOGY.** A study of the principles of taxonomy as applied to entomology. Laboratory work emphasizes orders and families. Four credits; spring.
- 467. BIOLOGICAL OCEANOGRAPHY. A study of the geology, geography, and biology of the ocean. Four credits; summer (WWC Biological Station). (187)
- 468. **COMPARATIVE PHYSIOLOGY.** A study of the physiology and life processes of marine animals with emphasis on invertebrates. Prerequisite: 282-283. Four credits; summer (WWC Biological Station). (188)
- 469. **FOREST ENTOMOLOGY.** A study of economically important forest insects with methods of control. Practical field experience is stressed. Four credits; spring.
- 472. METHODS OF TEACHING BIOLOGY. This course deals with the basic principles of teaching biology in the secondary school. Observation, demonstration, and class presentation are required of the students as a part of this course. Three credits; winter. (197)
- 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. Open only to majors and minors. Permission from the chairman of the department required. One to three credits any quarter. Maximum, three credits. Autumn, winter, spring. (191, 192, 193)
- 488. FISHERIES BIOLOGY. A study of marine and fresh water fisheries with emphasis upon fishery surveys and research methods, observation of hatchery and commercial fishing methods, and study of problems involved. Prerequisite: 462. Four credits; summer (WWC Biological Station). (198)
- 491-492-493. **SEMINAR IN RESEARCH METHODS.** A study of biological literature, with emphasis on the research paper; methods of gathering data; methods of compiling data; methods of writing the finished paper; presentation of an acceptable research paper. One credit; autumn, winter, spring. (194-195-196)
- 494. BIOSTATISTICS. Practice and theory in the use of statistical methods in quantitative biology. Four credits; autumn.
- 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. (201)

- 502. GENETICS AND EVOLUTION. Advanced study and evaluation of the evolutionary theory; preparation of material on scientific philosophy for publication. Prerequisite: 407, 422. Three credits; winter. (208)
- 510. GRADUATE SEMINAR. Presentation of topics and discussion of current research in:

Animal Behavior Entomology Philosophy of Science

Parasitology Invertebrate Zoology

One credit; any quarter. Maximum five credits. (204-205-206)

- 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; winter.
- 516. MEDICAL ENTOMOLOGY. 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: 448. 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: 282-283. Five credits; winter. (212)
- 524. MARINE INVERTEBRATES. An advanced study of invertebrate animals, with emphasis on marine forms. Individual research projects are required. Four credits: summer (WWC Biological Station). (181)
- 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: 448. Two laboratories per week. Four credits; spring. (229)
- 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. (235)

EDUCATION

The Department of Education offers master's degree programs with four different areas of specialization: administration, elementary teaching, guidance, secondary teaching. All candidates for the Master of Arts degree in education must meet the requirements for a teaching certificate in the State of Washington before the degree is granted.

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

- 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.

Basic requ	irements for all four areas include:	C 1
		Credi
561		3
580	Professional Project	
	or	0.0
590	Thesis	3-8
Select fro	m the following:	9
404	History of Education	
431	Psychology of Exceptional Children	
444	Social Psychology	
501	Statistics in Education and Psychology	
521	Psychology of Learning	
522		
525	Education in the 20th Century	
567	Comparative Education	
	Total	15-20
Basic Req	uirements	15-20
	pecialization:	15
A112	IPE School Health Education	1 1/1/19
449		
	Methods of Audio-Visual Education	
	Counseling and Guidance	
504		
001	or	
556	Curriculum Planning	
526	School Finance	
527	School Planning and Construction	
539	Supervision	
544	Administration of the Elementary School	
	or	
551	Administration of the Secondary School	
Electives:		10-15
Ten	of the electives must be in one or two areas	
othe	er than education.	
	Total	45

ELEMENTARY TEACHING Basic Requirements 15-20 Area of Specialization: 15 369 Science in the Elementary School 373 Mathematics in the Elementary School 463 Methods of Audio-Visual Education 504 Elementary School Curriculum 531 Individual Testing—Binet 533 Individual Testing—WISC 535 Remedial Reading 544 Administration of the Elementary School 549 Mental Health in Education Electives: 10-15 Ten of the electives must be in one or two areas other than education. Total 45 GUIDANCE Credits Basic Requirements 15-20 Area of Specialization: 15 426 Introduction to Counseling 431 Psychology of Exceptional Children 481 Counseling and Guidance 501 Statistics in Education and Psychology 509 Vocational Guidance 531 Individual Testing—Binet 532 Individual Testing—WAIS 533 Individual Testing—WISC 549 Mental Health in Education Electives: 10-15 Ten of the electives must be in one or two areas other than education. Total

SECONDARY TEACHING Basic Requirements 15-20 Area of Specialization: 6-12 463 Methods of Audio-Visual Education 521 Psychology of Learning 549 Mental Health in Education 556 Curriculum Planning 535 Remedial Reading or

539 Supervision
Teaching Specialization (in one or two areas)

Total

18-21

Total

COURSES

- 404. HISTORY OF EDUCATION. A survey of the history of education from early times to the present. Three credits; autumn. (154)
- 426. INTRODUCTION TO COUNSELING. Consideration of effective techniques of counseling individuals in the solution of personal problems in the school, family, church, and community. Prerequisite: 121, 122, 123. Two credits; spring. (166)
- 430. **EDUCATIONAL EVALUATION.** A study of methods and instruments for the evaluation of aptitudes, achievement, and personality in the school, including practical work in test construction for the elementary and secondary levels. Three credits; winter or spring. (330 & 118, 119)
- 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; summer.
- 434, 435. HUMAN GROWTH AND DEVELOPMENT. Principles of growth as related to various phases of human development: physical, mental and emotional. Deals with attitudes, ideals and concepts of values as these relate to personality maturation. The first quarter will cover the child through the elementary school levels; the second quarter deals with the adolescent period. Prerequisite: 121, 122, 123. Three credits; autumn, winter. (112 or 113)

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

- 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; autumn. (174)
- 463. METHODS OF AUDIO-VISUAL EDUCATION. A survey of the methods of instruction through the use of audio-visual aids, including recording devices, motion pictures, slides, film strips, charts, maps, posters, opaque projection, flat pictures, and blackboard illustrations. Three credits; spring. (183)
- 470. METHODS AND CURRICULUM. Meets daily for two or three periods during the first and last weeks of the quarter. Considers the basic principles of curriculum and instruction, fundamental teaching procedures which are applicable at any grade level. Includes orientation in organization of classroom procedures, keeping records, making reports, guiding and disciplining students, and other activities which support the instructional program. Three credits; autumn, winter, or spring. (340, 121, 122)
- 471, 472 or 473. **METHODS COURSES.** Several methods courses are offered by the various departments of the College. They deal with materials and specific methods applicable to the teaching of each individual subject. Actual classroom presentation and demonstration is included. Three credits. (All have the same numbers.) (197)

- 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; autumn, winter, spring. (280)
- 481. **COUNSELING AND GUIDANCE.** Principles and techniques of individual and group counseling with emphasis on the scope; needs; organization of the program; services to students, the instructional staff, and the administration; personnel needed for the program. Three credits; spring. (252)
- 501. STATISTICS IN EDUCATION AND PSYCHOLOGY. Statistical procedures and interpretations particularly as applied to research in education, psychology and related fields. Three credits; summer.
- 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; autumn.
- 509. **VOCATIONAL GUIDANCE.** A study of current materials and trends in educational and vocational guidance. Three credits; spring or summer.
- 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; summer. (211)
- 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; autumn. (221)
- 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; winter. (222)
- 525. **EDUCATION IN THE TWENTIETH CENTURY.** Historical background of modern education with emphasis on trends and developments in the twentieth century. Three credits; winter. (223)
- 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; summer. (226)
- 527. SCHOOL PLANNING AND CONSTRUCTION. A survey of how to plan and build schools, including the involvement of the lay citizen. Selection of the 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; summer. (227)
- 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; summer. (231)

- 532. INDIVIDUAL TESTING—WAIS. A course designed to familiarize the student with Wechsler Adult Intelligence Scale, its administration and interpretation. Arrangements should be made through the department chairman. Three credits; summer. (232)
- 533. INDIVIDUAL TESTING—WISC. A course designed to familiarize the student with the Wechsler Intelligence Scale for Children, its administration and interpretation. Arrangements should be made through the department chairman. Three credits; summer. (233)
- 535. **REMEDIAL READING.** Diagnostic and remedial reading techniques, how to recognize reading difficulties and improve reading skills. Three credits; summer. (235)
- 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; spring.
- 544. ADMINISTRATION OF THE ELEMENTARY SCHOOL. Organization, supervision, and administration of elementary schools. Three credits; summer. (244)
- 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; spring. (249)
- 551. ADMINISTRATION OF THE SECONDARY SCHOOL. Problems and procedures in the organization of secondary schools. Three credits; autumn. (251)
- 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; spring. (256)
- 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 experiences and to assist in his successful induction into school leadership. Five to ten credits; any quarter.
- 561. METHODS OF RESEARCH. Procedures in the selection and evaluation of research projects, and techniques in the analysis of research data. Three credits; autumn. (261)
- 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; spring.
- 570. **TOPICS.** Selected topics in education involving individual research and reports in addition to regular class activities. Three credits; any quarter. Maximum, six credits.
- 580. PROFESSIONAL PROJECT. Non-thesis candidates for the Master's degree register under this number for the professional paper. Three credits; any quarter.
 - 590. THESIS. Eight credits; any quarter. (290)

SUPPORTING DEPARTMENTS

The following departments offer courses which may be included in the student's graduate program as the minor or supporting work. The selection of a minor or suporting work presumes an adequate background in the subject matter area or areas involved.

BIBLICAL LANGUAGES

441-442-443. HEBREW I. Three credits each quarter.

451, 452, 453. HEBREW READING. One credit 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.

452. HUMAN RELATIONS IN MANAGEMENT. Three credits.

463. MONEY AND BANKING. Five credits.

477, 478, 479. SPECIAL PROBLEMS IN BUSINESS ADMINISTRA-TION. One to three credits any quarter; maximum three credits.

492. SEMINAR. One credit.

CHEMISTRY

401-402, 413. PHYSICAL CHEMISTRY. Four credits each quarter.

406. BIOCHEMISTRY. Four 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.

486. HISTORY OF CHEMISTRY. Two credits.

ENGLISH

402. TWENTIETH CENTURY LITERATURE. Three credits.

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. HISTORY OF THE ENGLISH LANGUAGE. Three credits.

427-428-429. **EIGHTEENTH CENTURY LITERATURE.** Two credits each quarter.

441-442-443. OLD AND MIDDLE ENGLISH LITERATURE. Three credits each quarter.

464, 465, 466. SEVENTEENTH CENTURY LITERATURE. Three credits each quarter.

469. LITERATURE OF THE BIBLE. Three credits.

472. METHODS OF TEACHING ENGLISH IN THE SECONDARY SCHOOL. Three credits.

491-492-493. SEMINAR. One credit each quarter.

HEALTH AND PHYSICAL EDUCATION

- 403. LEADERSHIP IN CAMPING AND CAMPCRAFT. Two credits.
- 410. COMMUNITY HEALTH TEACHING. Three credits.
- 421. 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.
- 426. ADMINISTRATION OF PHYSICAL EDUCATION AND HEALTH IN SECONDARY SCHOOLS. Three credits.
 - 441. SCHOOL HEALTH EDUCATION. Three credits.
 - 442. HEALTH ADMINISTRATION. Three credits.
- 471. METHODS OF TEACHING 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 & 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.
- 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. 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. 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.
- 471. METHODS OF TEACHING SOCIAL SCIENCE. Three credits.

INDUSTRIAL EDUCATION

- 448. HISTORY OF INDUSTRIAL ARTS. Two credits.
- 472. METHODS OF TEACHING INDUSTRIAL ARTS. Three credits.
- 477, 478, 479. SPECIAL PROBLEMS IN INDUSTRIAL EDUCATION. Six credits maximum from this and/or special projects any quarter.

484, 485, 486. SPECIAL PROJECTS. Six credits maximum from this and/or special problems any quarter.

488. SENIOR PROBLEM. One credit.

MATHEMATICS

401. MODERN GEOMETRY. Four credits.

402. INTRODUCTION TO MODERN ALGEBRA. Four credits.

403. MATRIX THEORY. Four credits.

471. METHODS OF TEACHING MATHEMATICS. Three credits.

477, 478, 479. SPECIAL PROBLEMS IN MATHEMATICS. One to three credits any quarter; maximum three credits.

MODERN LANGUAGES

Spanish

402. SPANISH PRONUNCIATION. Two credits.

404, 405, 406. SPANISH DIRECTED READING. One to three credits each quarter.

409. ADVANCED SPANISH CONVERSATION. Two credits.

421. SPANISH ESSAY. Three credits.

 $425,\ 426.$ LATIN AMERICAN LITERATURE. Three credits each quarter.

French

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

German

403. MODERN GERMANY AND ITS LITERATURE. Three credits. 404, 405, 406. GERMAN DIRECTED READING. One to three credits any quarter; maximum six credits.

421. GERMAN ROMANTICISM. Three credits.

422. CLASSIC GERMAN LITERATURE. Three credits.

423. ADVANCED GERMAN COMPOSITION AND CONVERSATION. Three credits

470. METHODS OF TEACHING MODERN LANGUAGES IN THE SECONDARY SCHOOL. Three credits.

477, 478, 479. SPECIAL PROBLEMS IN MODERN LANGUAGES. One to three credits any quarter; maximum three credits.

MUSIC

404-405-406. ANALYTICAL TECHNIQUES. Two credits each quarter. 407-408-409. ORCHESTRATION. Two credits each quarter.

411, 412, 413. COMPOSITION. Two credits each quarter.

441, 442, 443. HISTORY AND LITERATURE OF MUSIC SINCE 1750. Two credits each quarter.

472. METHODS OF TEACHING MUSIC IN THE SECONDARY SCHOOL. Three credits.

481, 482, 483. **SELECTED TOPICS IN MUSIC.** One to three credits any quarter; maximum three credits.

PHYSICS

401. OPTICS. Four credits.

402. ATOMIC PHYSICS. Four credits.

403. NUCLEAR PHYSICS. Four credits.

404. OPTICS LABORATORY. Two credits.

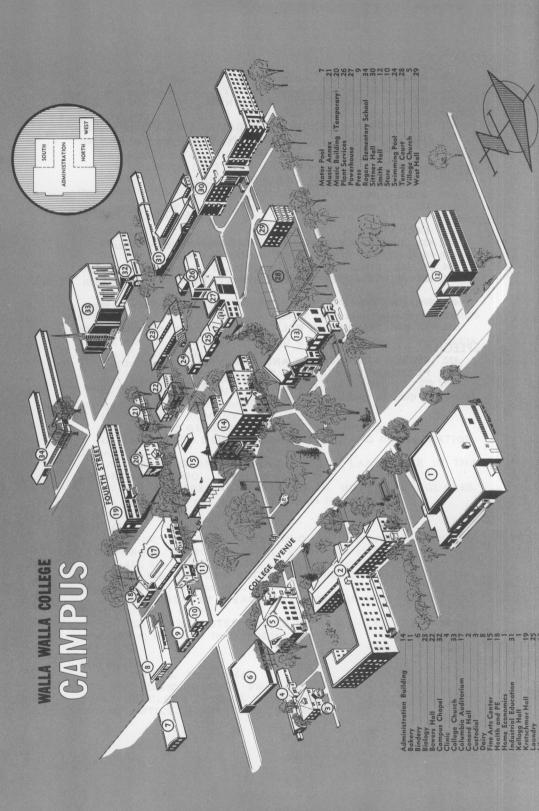
- 405. ATOMIC PHYSICS LABORATORY. Two credits.
- 406. NUCLEAR PHYSICS LABORATORY. Two credits.
- $421,\ 422,\ 423.$ THEORETICAL MECHANICS. Three credits each quarter.
 - 471. METHODS OF TEACHING PHYSICAL SCIENCE. Three credits.
- 477, 478, 479. SPECIAL PROBLEMS IN PHYSICS. One to three credits any quarter; maximum three credits.

RELIGION

- 402. MODERN DENOMINATIONS. Three credits.
- 403. WORLD RELIGIONS. Three credits.
- 421, 422, 423. PHILOSOPHY OF RELIGION. Two credits each quarter.
 - 426. ESCHATOLOGY. Three credits.
 - 427, 428. CHRISTIAN DYNAMICS. Two credits each quarter.
 - 429. STUDIES IN CHRISTIAN DYNAMICS. Two credits.
 - 444, 445, 446. BIBLICAL BACKGROUNDS. Two credits 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.

SPEECH

- 422. SPEECH COMPOSITION AND ANALYSIS. Three credits.
- 443. PERSUASIVE SPEAKING. Three credits.
- 477, 478, 479. SPECIAL PROBLEMS IN SPEECH. One to three credits any quarter; maximum three credits.



Walla Walla College

"The School That Educates for Life"