Walla Walla Walla
College
Graduate Division
The Educational Council in Session

GRADUATE DIVISION

1962-1963
1963-1964

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CALENDAR OF THE GRADUATE DIVISION

AUTUMN QUARTER, 1962-1963

September 23, 24, 25—Sunday, Monday, Tuesday .... Registration
September 26—Wednesday .... Instruction begins
November 21 (1:00 p.m.)-25 .... Thanksgiving recess
December 19—Wednesday .... Instruction ends
December 19—January 2 .... Christmas recess

WINTER QUARTER, 1962-63

December 5-12 .... Registration
December 31—Monday .... Registration of new students
January 2—Wednesday .... Instruction begins
March 13—Wednesday .... Instruction ends

SPRING QUARTER, 1962-63

February 27—March 6 .... Registration
March 18—Monday .... Registration of new students
March 19—Tuesday .... Instruction begins
May 31—Friday .... Instruction ends
May 31—Friday .... Senior Consecration
June 1—Saturday .... Baccalaureate
June 2—Sunday .... Commencement

SUMMER QUARTER, 1963

June 9, 10—Sunday, Monday .... Registration
June 11—Tuesday .... Instruction begins
July 12—Friday .... First term ends
July 15—Monday .... Second term begins
August 16—Friday .... Instruction ends
August 16—Friday .... Senior Consecration
August 17—Saturday .... Baccalaureate
August 18—Sunday .... Commencement
AUTUMN QUARTER, 1963-64
September 22, 23, 24—Sunday, Monday, Tuesday . . . . Registration
September 25—Wednesday . . . . . . . . . . . . . . . . . . . . . . . . . Instruction begins
November 20 (1:00 p.m.)-24 . . . . . . . . . . . . . . . . . . . . . . . . . Thanksgiving recess
December 18—Wednesday, 6:00 p.m. . . . . . . . . . . . . . . . . . . . Instruction ends
December 18-January 5 . . . . . . . . . . . . . . . . . . . . . . . . . Christmas recess

WINTER QUARTER, 1963-64
December 16-20 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Registration
January 5 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Registration of new students
January 6—Monday . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Instruction begins
March 18—Wednesday . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Instruction ends

SPRING QUARTER, 1963-64
March 9-13 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Registration
March 23 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Registration of new students
March 24—Tuesday . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Instruction begins
June 4—Thursday . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Instruction ends
June 5—Friday . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Senior Consecration
June 6—Saturday . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Baccalaureate
June 7—Sunday . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Commencement

SUMMER QUARTER, 1964
June 14, 15—Sunday, Monday . . . . . . . . . . . . . . . . . . . . . . . . . Registration
June 16—Tuesday . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Instruction begins
July 17—Friday . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . First term ends
July 20—Monday . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Second term begins
August 21—Friday . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Instruction ends
August 21—Friday . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Senior Consecration
August 22—Saturday . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Baccalaureate
August 23—Sunday . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Commencement
ADMINISTRATION

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Thomas W. Walters, Ed. D. ........................................... Dean of Students
Arthur W. Spoo, B. S. ........................................... Business Manager
Irene T. Black, B. A. ........................................... Registrar
Lenoa Peebles Silver, M. L. ........................................... Librarian
Paul C. Heubach, M. A. ........................................... Chaplain
M. S. Culver, M. A. ........................................... Dean of Men
Helen Ward Evans, M. A. ........................................... Dean of Women
Gordon S. Balharrrie, B. D. ........................................... Dean, School of Theology
Wilma L. Leazer, R. N., M. S. ........................................... Dean, School of Nursing

GRADUATE COUNCIL

George W. Bowers, Chairman; Irene T. Black, Secretary; Robert H. Brown, Percy W. Christian, Harold G. Coffin, Hans L. Rasmussen, Robert E. Silver
GRADUATE FACULTY

APLINGTON, KENNETH A., Professor of English
  B. A., 1935, Walla Walla College; M. A., 1942, University of Washington

BALHARRIE, GORDON S., Associate Professor of Religion

BARNES, JOSEPH N., Assistant Professor of Religion

BARNETT, CLAUDE C., Assistant Professor of Physics
  B. S., 1952, Walla Walla College; M. S., 1956, State College of Washington; Ph. D., 1960, Washington State University

BLAKE, DONALD F., Instructor in Biology
  A. B., 1953, Oakwood College; B. S., 1957, M. S., 1959, Michigan State University

BOWERS, GEORGE W., Emeritus Professor of Chemistry
  B. A., 1917, Union College; M. A., 1924, Ph. D., 1935, University of Nebraska; LL. D., 1956, Walla Walla College

BROWN, ROBERT H., Professor of Physics
  B. A., 1940, Union College; M. S., 1942, University of Nebraska; Ph. D., 1950, University of Washington

BURGESON, RUTH E., Assistant Professor of English
  B. A., 1951, M. A., 1957, Pacific Union College

BURNS, JOHN R., Associate Professor of English
  B. A., 1956, Honours B. A., 1959, University of South Africa

CANADAY, LEWIS H., Assistant Professor of Industrial Education

CHAMBERS, JAMES R., Associate Professor of Chemistry
  B. A., 1939, Columbia Union College; M. S., 1949, Western Reserve University; Ph. D., 1958, Agricultural and Mechanical College of Texas

CHRISTIAN, JOHN W., Instructor in History
  B. A., 1956, Walla Walla College; M. A., 1957, Northwestern University

CHRISTIAN, PERCY W., Professor of History
  B. A., 1926, Broadview College; B. S., 1928, Lewis Institute; M. A., 1929, Ph. D., 1935, Northwestern University

COFFIN, HAROLD G., Professor of Biology
  B. A., 1947, M. A., 1952, Walla Walla College; Ph. D., 1955, University of Southern California

DAHLBECK, RUSSELL M., Assistant Professor of Physical Education
  B. S., 1950, Walla Walla College; M. S., 1953, University of Washington

DALSON, GENE T., Instructor in Engineering
  B. S., 1958, Tri-State College; M. S., 1960, Michigan State University

DAVIS, MELVIN W., Associate Professor of Music
  B. A., 1949, College of the Pacific; M. Mus., 1954, Chicago Musical College

DICKINSON, LOREN, Instructor in Speech
  B. A., 1957, Union College; M. A., 1960, University of Nebraska

EMERY, BEATRICE L., Assistant Professor of Biology
  B. A., 1943, Walla Walla College; M. S., 1948, University of Nebraska
Foster, Zeph H., Instructor in Education
B. A., 1951, Walla Walla College; M. S., Ed., 1956, University of Idaho

Grove, J. Paul, Assistant Professor of Religion
B. A., 1944, Columbia Union College; M. A., 1956, Theological Seminary, Andrews University

Hafner, John J., Professor of Music
B. A., 1941, Emmanuel Missionary College; M. Mus., 1949, Chicago Musical College

Hanson, Fredrick R., Professor of Nursing Education
R. N., 1930, Mason Memorial Hospital; B. A., 1932, Walla Walla College; M. A., 1942, University of Washington

Heubach, Paul C., Professor of Religion
B. A., 1935, Pacific Union College; M. A., 1944, Theological Seminary, Andrews University

Jones, Carl T., Associate Professor of Chemistry
B. A., 1933, Columbia Union College; M. S., 1939, Catholic University of America; Ph. D., 1959, Oregon State College

Jones, Lucile Hall, Assistant Professor of Nursing 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

Jones, Ralph L., Assistant Professor of Business Administration

Litke, Richard L., Associate Professor of Biblical Languages
B. A., 1948, Walla Walla College; B. A., 1953, M. A., 1953, University of California; Ph. D., 1959, Yale University

Ludgate, T. K., Associate Professor of Religion
B. A., 1942, Columbia Union College; M. A., 1945, Theological Seminary, Andrews 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 Administration

Moore, Roberta J., Associate Professor of English
B. A., 1948, Atlantic Union College; M. A., 1953, Boston University

Penner, Jonathan G., Assistant Professor of Speech
B. A., 1944, Emmanuel Missionary College; M. S., 1958, Ph. D., 1962, Purdue University

Peters, J. V., Assistant Professor of Education
B. A., 1936, Minnesota Teachers College; M. A., 1946, University of Idaho

Randolph, Richard D., Instructor in Music
B. S., 1952, Union College; M. Mus., 1958, Lewis and Clark College

Rasmussen, Hans L., Professor of Education
B. A., 1937, Emmanuel Missionary College; M. A., 1943, University of Michigan; Ed. D., 1946, Stanford University

Rigby, Donald W., Assistant Professor of Biology
B. A., 1950, La Sierra College; M. A., 1956, Walla Walla College

Schlotthauer, Lilah Godfrey, Associate Professor of Mathematics
B. A., 1923, Walla Walla College; M. S., 1934, University of Washington
Searle, Bernice E., Associate Professor of Education  
B. A., 1939, Walla Walla College; M. A., 1941, University of Minnesota

Silver, Robert E., Associate Professor of Education  

Sorenson, Agnes L., Professor of Modern Languages  
B. A., 1923, Emmanuel Missionary College; M. A., 1929, University of Michigan

Stoehr, Henrique G., Professor of Modern Languages  
B. A., 1948, Walla Walla College; Dr., U. P., 1952, University of Paris

Stout, John F., Instructor in Biology  
B. A., 1957, Columbia Union College

Trautwein, Calvin L., Assistant 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

Wagner, Orvin E., Instructor in Physics  
B. A., 1953, B. S., 1959, Walla Walla College

Walters, Thomas W., Assistant Professor of Education  

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

Westermeyer, Harry E., Professor of History  
B. A., 1917, Clinton Theological Seminary; M. A., 1934, College of the Pacific; Ph. D., 1946, Stanford University

White, Arthur L., Instructor in Business Administration  
B. S., 1956, Walla Walla College; M. A., 1957, University of Washington

Winter, Eugene S., Associate Professor of Physical Education  
B. A., 1941, Walla Walla College; M. S., Washington State University

Wolfe, Wade H., Instructor in Industrial Education  

Wright, Evelynne F., Associate Professor of Home Economics  
B. A., 1941, Pacific Union College; M. S., 1953, Oregon State College

Zolper, Kathleen Keen, Assistant Professor of Home Economics  
B. S., 1941, Walla Walla College; M. A., 1961, Washington State University

*Leave of Absence current year.
A Human Laboratory in the Art of Learning.

DEGREE REQUIREMENTS
GENERAL
INFORMATION

Walla Walla College is a private, church-related institution of higher learning conducted by the Seventh-day Adventist denomination. Founded in 1892, it serves as a center of higher education for the youth of the Church in the Pacific Northwest. Students from other geographic regions of the United States, Canada, and many foreign lands bring a cosmopolitan influence to its campus that enriches and stimulates the cultural life of the student. The College, though essentially a coeducational, liberal arts college, also offers certain professional and preprofessional training.

The College is located in the city of College Place, in the historic, fertile Walla Walla Valley of southeastern Washington. The Oregon Trail, near the campus, leads directly to the site of the Whitman Mission and the Whitman National Monument. The scenic Blue Mountains to the east are but a few minutes' drive from the campus, and offer unusual opportunities for recreation and relaxation.

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

The primary purposes of the Graduate Division are to offer work on an advanced level which will increase the professional competence of the elementary and secondary school teachers of the denominational educational system, and to provide training which will prepare students for research careers. Since 1949 and 1950, the College has offered graduate work leading to the Master of Arts degree in the departments of Biological Sciences and Education, respectively.

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.

STUDENT CITIZENSHIP
Each individual coming to Walla Walla College for the purpose of entering
any department of the College is subject to its supervision from the time of arrival
in College Place, and is under its jurisdiction until his connection is terminated by
graduation or by an officially approved withdrawal. Any regulation adopted by
the Board or the faculty, and publicly announced to the student body, shall have
the same force as if published in this bulletin.

The record of each student is reviewed periodically, and his continuation in
college is based upon his attitudes and general conduct, as well as his scholastic
attainments.

RESIDENCE
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.

CHAPEL
Chapel (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 con-
duct themselves in harmony with the sacred nature of the day. No instructional
activities are conducted during these hours.

SOCIAL AND MORAL STANDARDS
Students are expected to conduct themselves in harmony with the fundamental
principles of Christian living as interpreted by the College. The dormitory stu-
dents 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 prop-
erty damage insurance. Evidence for 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 these items, 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.
The Registrar's Office—Permanent Records and Friendly Counsel

GENERAL INFORMATION
THE GRADUATE PROGRAM

DEGREES OFFERED

The Graduate Division offers programs leading to the Master of Arts degree in the departments of Biological Sciences and Education. The various programs are controlled and supervised by the Graduate Council, which is the legislative body responsible for the formulation of all graduate academic policies.

The philosophy of the graduate program of the College is based upon the following basic premises. First, creative teaching requires a scholarly command of the chosen academic discipline which is the result of a rigorous training involving both breadth and depth of preparation. Second, graduate study should develop an understanding and appreciation of research and its concomitant values to the individual. Finally, the improvement of the professional competence and qualifications of teachers is regarded as one of the more important functions of graduate study.

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 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:

REGULAR: An adequate background of undergraduate work in the proposed field of graduate study, and a grade-point average of at least 3.00 (B) during the senior year, are required. In general, an undergraduate major, or a fair equivalent, is necessary. The minimum requirement for graduate study in education is a minor or the equivalent.

CONDITIONAL: A student with a grade-point average of less than 3.00 (B), or with some deficiency in undergraduate preparation, may be granted provisional admission. Students with conditional status are not granted regular status until one full quarter of graduate work is completed with a minimum grade-point average of 3.00 (B), and undergraduate deficiencies have been satisfied by the completion of prescribed undergraduate courses. Students with conditional status may not be advanced to candidacy for degree.

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.

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 twelve to fifteen credits per quarter. The maximum load for graduate students is sixteen credits per quarter. Students engaged in part-time employment must confer with their adviser and limit their course load.

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 200 or above are primarily for graduate students. Courses numbered 150-199 are open to both upper-division undergraduate and graduate students. Certain courses numbered 100 to 149 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. Grades below C are regarded as unsatisfactory and are not accepted for graduate credit. Unsatisfactory grades are included in the total 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 nine 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.

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.

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.
A Biological Laboratory Where Nature Is Richest.

THE GRADUATE PROGRAM
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.

RESIDENCE

Three quarters in residence, or the equivalent, are required.

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 any 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 should be approved by the Graduate Council before the second quarter of graduate study.

ADVANCEMENT TO CANDIDACY

A student will not be considered for degree candidacy until the general background tests and the preliminary comprehensive examinations have been completed. The general background tests are measures of the student's intellectual capacity and skill in the written use of the English language, and should be completed during the first quarter in residence.

The preliminary comprehensive examination is an evaluation of the breadth and depth of the student's competence in the major field, and must be successfully completed before the final quarter in residence. Weakness in a given area may necessitate changes in the program of study or the completion of additional courses. Upon the recommendation of the adviser, the student is advanced to candidacy by the Graduate Council and receives official notification thereof.

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 seminar report, planned with and approved by the adviser, for the thesis. Two copies of the thesis or seminar reports 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 reports. The copies of the thesis or seminar reports and the abstract are kept on permanent file in the College Library and the respective department.

FINAL EXAMINATION

A final comprehensive examination, administered by a committee chosen by the chairman of the Graduate Council in counsel with the adviser, must be successfully completed. The examination may be oral, or both written and oral, and will cover the subject matter related to the candidate's field of study. In cases where candidates submit a thesis, the oral examination will be in defense of the thesis. 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 the lapse of at least one quarter. The second examination is final.

CONFERMENT OF DEGREE

Upon successful completion of the program of study, and all examinations, the Secretary of the Graduate Council authorizes the conferring of the degree.
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.

1. Upon admission to the Graduate Division, the student confers with the chairman of the department in which graduate study is proposed for the assignment of an adviser.

2. The adviser assists the student in registering for courses for the first quarter.

3. For the purpose of counseling, the student will take an aptitude test as prescribed by the Graduate Council during the initial quarter of study. These tests are administered by the Education Department. The student should arrange for these tests with the chairman of this department. The test results are transmitted to the chairman and secretary of the Graduate Council and become a part of the student's record.

4. Prior to the end of the first quarter of study, the student, in conference with the adviser, prepares the proposed program of graduate study. A complete transcript of all undergraduate work should be available to insure intelligent program planning. Five typewritten copies of the proposed program, on forms provided by the Education Department, must be submitted to the Graduate Council before the beginning of the second quarter of study. Copies of the approved program, signed by the chairman of the Graduate Council, are then filed with the secretary and the chairman of the Council. Students registering for classes during their second quarter in attendance without having the graduate study program approved, do so at their own risk.

5. Preliminary comprehensive examinations are to be completed before the final quarter in residence. The scheduling of the examinations is to be determined by the student in counsel with the adviser. Upon receipt of a statement from the adviser indicating satisfactory completion of these examinations, the Graduate Council automatically advances the student to candidacy. No student with undergraduate deficiencies or with an unsatisfactory graduate grade-point average may be advanced to candidacy. Students who do not successfully complete the preliminary comprehensive examination may be advised to discontinue graduate study or to register for additional work.

6. The final examination may be oral or both written and oral. The time, type, and the committee administering the final examination are determined by the chairman of the Graduate Council in counsel with the adviser.

7. Upon receipt of a statement from the chairman of the Graduate Council indicating successful completion of all examinations and procedures outlined, the secretary certifies that the candidate has completed the program of graduate study within the six-year time limit with a satisfactory grade-point average, and authorizes the conferring of the degree.
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 200 or above are primarily for graduate students. Courses numbered 150-199 are open to both upper-division undergraduate and graduate students. Certain courses numbered 100 to 149 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.

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

151. NATURAL HISTORY OF VERTEBRATES. A study of amphibians, reptiles, and mammals with emphasis on taxonomy and ecology. Two laboratories per week. Four credits.

156. INTRODUCTORY ENTOMOLOGY. A study of insect morphology, ecology, and classification. Two laboratories per week. Four credits.

157. PHILOSOPHY OF SCIENCE. A study of origins of living things of special creation as opposed to evolution, the Flood, glaciation, problems of species, and distribution of plants and animals. Three credits.

159. PALEONTOLOGY. A study of plant and animal fossils, with a survey of the principles of geology. Three credits.
162. **GENETICS.** A study of the principles of inheritance in plants and animals, especially man. Three credits.

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

169. **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. (WWC Biological Station).

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

176. **GENERAL ECOLOGY.** A course designed to cover the basic principles of ecology with reference to both plants and animals. Field trips to nearby areas illustrating these principles are a part of the laboratory work. Four credits. (WWC Biological Station).

177-178. **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. One laboratory per week. Three credits each quarter.

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

181. **MARINE INVERTEBRATES.** A study of the invertebrate animals of Puget Sound with emphasis on systematics and natural history. Four credits. (WWC Biological Station).

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

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

184. **HISTORY OF BIOLOGY.** A survey of the history of biological science from the Greek period to the present. Two credits.

185. **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.

187. **BIOLOGICAL OCEANOGRAPHY.** A study of the geology, geography, and biology of the ocean. Four credits. (WWC Biological Station).

188. **COMPARATIVE PHYSIOLOGY.** A study of the physiology and life processes of marine animals with emphasis on invertebrates. Prerequisite: 92-93. Four credits. (WWC Biological Station).

189. **SYSTEMATIC ENTOMOLOGY.** A systematic study of insects. The principles of taxonomy as applicable to insects are included. Four credits.
191, 192, 193. **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.

194-195-196. **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; two credits; spring (research paper required spring quarter).

198. **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: 182. Four credits. (WWC Biological Station).

201. **RESEARCH IN ZOOLOGY.** Individual work in a topic of original research carried out under the direction of one of the instructors. A report must be prepared for publication before credit will be allowed. Two to four credits per quarter, maximum credits eight.

202. **RESEARCH IN BOTANY.** Individual work in a topic of original research carried out under the direction of one of the instructors. A report must be prepared for publication before credit will be allowed. Two to four credits per quarter, maximum credits eight.

204-205-206. **GRADUATE SEMINAR.** Presentation of topics of current interest in biological science, followed by discussion. Each class member prepares a lecture as if for presentation before a scientific society meeting. One credit each quarter.

208. **GENETICS AND EVOLUTION.** Advanced study and evaluation of the evolutionary theory; preparation of material on scientific philosophy for publication. Prerequisite: 157, 162. Three credits.

212. **CELLULAR BIOLOGY.** Current knowledge and research in the areas of cell physiology, biochemical genetics, bacteriological genetics, and radiation biology will be considered. Prerequisite: 92-93. Four credits.

229. **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: 177-178. Two laboratories per week. Four credits.

235. **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. Five to nine credits.
154. HISTORY OF EDUCATION. A survey of the history of education from early times to the present. Three credits.

166. INTRODUCTION TO COUNSELING. Consideration of effective techniques of counseling individuals in the solution of personal problems of the school, family, church, and community. Prerequisite: 57, 58, or 59. Two credits.

171. SCHOOL HEALTH EDUCATION. A study of basic principles of teaching health in elementary and secondary schools. Sources, selection, and use of materials in this field. Three credits.

174. 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.

183. 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. Prerequisite: 9 credits in Education. Three credits.

197. 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. A practical classroom presentation and demonstration is included. Three credits. (All are numbered 197).

211. 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.

221. 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.

222. 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.

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

226. 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.

227. 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.

231. **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.

232. **INDIVIDUAL TESTING—WAIS.** A course designed to familiarize the student with the Wechsler Adult Intelligence Scale, its administration and interpretation. Arrangements should be made through the department chairman. Three credits.

233. **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.

235. **REMEDIAL READING.** Diagnostic and remedial reading techniques, how to recognize reading difficulties and improve reading skills. Three credits.

244. **ADMINISTRATION AND SUPERVISION, ELEMENTARY.** Organization, administration and supervision in the elementary schools. Three credits.

249. **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.

251. **ADMINISTRATION AND SUPERVISION, SECONDARY.** A course which presupposes some familiarity with problems of administration and supervision. An intensive study of the more important problems of organization and administration in secondary education. Three credits.

252. **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.

256. **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.

261. **METHODS OF RESEARCH.** Methods of research applied to current educational issues and trends in America. Two credits.

265. **SEMINAR.** Topics in elementary education dealing with curriculum, personnel, school plant, finance, public relations, or other related areas. Two credits.

266. **SEMINAR.** Topics in secondary education dealing with curriculum, personnel, school plant, finance, public relations, or other related areas. Two credits.

280. **SPECIAL PROBLEMS IN EDUCATION.** Degree candidates who desire to pursue special research problems under the direction of the major professor may register for one to three credits.

280. **THESIS.** Five to nine credits.
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 supporting work presumes an adequate background in the subject matter area or areas involved.

BIBLICAL LANGUAGES

171-172-173. HEBREW I. Three credits each quarter.
191, 192, 193. SPECIAL PROBLEMS IN BIBLICAL LANGUAGES. One to three credits.

BUSINESS ADMINISTRATION

161. BUSINESS MANAGEMENT. Three credits.
163. BUSINESS FINANCE. Three credits.
165. HUMAN RELATIONS IN MANAGEMENT. Three credits.
172. TAX PROCEDURE. Three credits.
174. FUND ACCOUNTING. Three credits.
176. AUDITING PROCEDURE. Three credits.
177, 178, 179. ACCOUNTING PROBLEMS. Three credits each quarter.
186. MONEY AND BANKING. Five credits.
191, 192, 193. SPECIAL PROBLEMS IN BUSINESS ADMINISTRATION. One to three credits. Maximum three credits.
196. STATISTICS. Three credits.
198. SEMINAR. Two credits.

CHEMISTRY

151-152, 153. PHYSICAL CHEMISTRY. Four credits each quarter.
156. BIOCHEMISTRY. Four credits.
164. ORGANIC SYNTHESIS. Three credits.
165. INORGANIC SYNTHESIS. Three credits.
166. ORGANIC QUALITATIVE ANALYSIS. Three credits.
168. ADVANCED ORGANIC CHEMISTRY. Two credits.
191, 192, 193. SPECIAL PROBLEMS. One to three credits. Maximum three credits.
196. HISTORY OF CHEMISTRY. Two credits.

ENGLISH

151, 152, 153. NEWSPAPER PROBLEMS. Two credits each quarter.
154, 155, 156. THE VICTORIAN PERIOD. Three credits each quarter.
157, 158, 159. AMERICAN LITERARY MASTERS. Two credits each quarter.
161, 162, 163. THE ROMANTIC PERIOD. Two credits each quarter.
165. HISTORY OF THE ENGLISH LANGUAGE. Three credits.
166. SCHOOL PUBLICATIONS. Two credits.
167-168-169. RESTORATION AND NEOCLASSIC LITERATURE. Two credits each quarter.
171-172-173. OLD AND MIDDLE ENGLISH LITERATURE. Three credits each quarter.
184, 185, 186. ENGLISH RENAISSANCE LITERATURE. Three credits each quarter.
189. LITERATURE OF THE ENGLISH BIBLE. Three credits.
194-195-196. SEMINAR. One credit each quarter.
197. METHODS OF TEACHING ENGLISH IN THE SECONDARY SCHOOL. Three credits.

HEALTH AND PHYSICAL EDUCATION

153. LEADERSHIP IN CAMPING AND CAMP CRAFT. Two credits.
161. FOUNDATIONS OF PHYSICAL EDUCATION. Three credits.
162. TESTS AND MEASUREMENTS IN PHYSICAL EDUCATION. One credit.
163. ADMINISTRATION OF PHYSICAL EDUCATION AND HEALTH IN SECONDARY SCHOOLS. Three credits.
164, 165, 166. ADVANCED ARTS AND CRAFTS. Two credits each quarter.
166. CHILD AND YOUTH HEALTH TEACHING. Three credits.
167, 168 or 169. CHILD AND YOUTH HEALTH TEACHING LABORATORY. One credit.
171. SCHOOL HEALTH EDUCATION. Three credits.
173. HEALTH ADMINISTRATION. Three credits.
178 or 179. COMMUNITY HEALTH TEACHING. Three credits.
191, 192, 193. SPECIAL PROBLEMS IN PHYSICAL EDUCATION. One to three credits. Maximum three credits.
194, 195, 196. DIRECTED TEACHING IN HEALTH. Three to nine credits.
195, 196. SEMINAR. One credit each quarter.
197. METHODS OF TEACHING HEALTH. Three credits.
197. METHODS OF TEACHING PHYSICAL EDUCATION. Three credits.

HISTORY, POLITICAL SCIENCE, AND SOCIAL SCIENCE

151, 152, 153. CURRENT HISTORY. Two credits each quarter.
154, 155, 156. HISTORY OF ENGLAND. Two credits each quarter.
157, 158, 159. EUROPE SINCE 1815. Three credits each quarter.
161, 162, 163. HISTORY OF RUSSIA. Two credits each quarter.
164, 165. THE AMERICAN FRONTIER. Two credits each quarter.
167. THE LATE MIDDLE AGES. Three credits.
168. THE RENAISSANCE. Three credits.
169. THE REFORMATION. Three credits.
174. HISTORY OF CANADA. Three credits.
176. HISTORY OF THE PACIFIC NORTHWEST. Three credits.
177, 178. TWENTIETH CENTURY AMERICA. Three credits each quarter.
184. TWENTIETH CENTURY TOTALITARIANISM. Three credits.
186. SEMINAR FOR HISTORY MINORS. One credit.
187, 188, 189. HISTORY OF LATIN AMERICA. Two credits each quarter.
191, 192, 193. SPECIAL PROBLEMS IN HISTORY. One to three credits each quarter. Maximum three credits.
194, 195. SEMINAR FOR HISTORY MAJORS. One credit each quarter.
151. CONSTITUTIONAL INTERPRETATION. Three credits.
152. **WORLD POLITICS AND INTERNATIONAL RELATIONS.**
   Three credits.
161. **PUBLIC OPINION AND PROPAGANDA.** Three credits.
165. **POLITICAL THEORY.** Three credits.
172. **PERSONALITY AND LEADERSHIP.** Two credits.
175. **CURRENT SOCIAL PROBLEMS.** Three credits.
197. **METHODS OF TEACHING SOCIAL SCIENCE.** Three credits.

**HOME ECONOMICS**
163. **EXPERIMENTAL COOKERY.** Three credits.
164, 165. **INTERIOR DECORATION.** Three credits each quarter.
171, 172. **ADVANCED NUTRITION.** Three credits each quarter.
173. **DIET IN DISEASE.** Three credits.
177. **INSTITUTION FOOD PURCHASING.** Three credits.
178. **INSTITUTION MANAGEMENT.** Three credits.
181-182. **TAILORING.** Two credits each quarter.
186. **SEMINAR.** One credit.
191, 192, 193. **SPECIAL PROBLEMS IN HOME ECONOMICS.** One to three credits. Maximum three credits.
196. **ADVANCED INTERIOR DECORATION.** Three credits.
197. **METHODS OF TEACHING HOME ECONOMICS.** Three credits.

**INDUSTRIAL EDUCATION**
154, 155, or 156. **MACHINE AND TOOL MAINTENANCE.** One or two credits each quarter.
178. **HISTORY OF INDUSTRIAL ARTS.** Two credits.
191, 192, 193. **SPECIAL PROBLEMS IN INDUSTRIAL EDUCATION.**
Six hours maximum credit from this and/or Special Projects.
194, 195, 196. **SPECIAL PROJECTS.** Six hours credit maximum from this and/or Special Problems in Industrial Education.
197. **METHODS OF TEACHING INDUSTRIAL ARTS.** Three credits.
198. **SENIOR PROBLEM.** One credit.

**MATHEMATICS**
151. **COLLEGE GEOMETRY.** Four credits.
152. **THEORY OF EQUATIONS.** Four credits.
153. **INTRODUCTION TO MODERN ALGEBRA.** Four credits.
161. **DIFFERENTIAL EQUATIONS.** Four credits.
162. **DIFFERENTIAL EQUATIONS.** Two credits.
164. **ADVANCED CALCULUS.** Two credits.
165. **ADVANCED CALCULUS.** Four credits.
171, 172, 173. **INTRODUCTION TO MATHEMATICAL ANALYSIS.**
Four credits each quarter.
190. **SELECTED TOPICS IN MATHEMATICS.** One or two credits.
197. **METHODS OF TEACHING MATHEMATICS.** Three credits.

**MODERN LANGUAGES**
152. **SPANISH PRONUNCIATION.** Two credits.
153. **MODERN GERMANY AND ITS LITERATURE.** Three credits.
159. **ADVANCED SPANISH CONVERSATION.** Two credits.
161. **SPANISH ESSAY.** Three credits.
161. **GERMAN ROMANTICISM.** Three credits.
162. CLASSIC GERMAN LITERATURE. Three credits.
163. ADVANCED GERMAN COMPOSITION AND CONVERSATION. Three credits.
165, 166. LATIN AMERICAN LITERATURE. Three credits each quarter.
191, 192, 193. SPECIAL PROBLEMS IN MODERN LANGUAGES. One to three credits. Maximum three credits.
187. METHODS OF TEACHING MODERN LANGUAGES IN THE SECONDARY SCHOOL. Three credits.

MUSIC
154-155-156. ANALYTICAL TECHNIQUES. Two credits each quarter.
157-158-159. ORCHESTRATION. Two credits each quarter.
161, 162, 163. COMPOSITION. Two credits each quarter.
171, 172, 173. HISTORY AND LITERATURE OF MUSIC SINCE 1750. Two credits each quarter.
191, 192, 193. SELECTED TOPICS IN MUSIC. One to three credits. Maximum three credits.
197. METHODS OF TEACHING MUSIC IN THE SECONDARY SCHOOL. Three credits.
199. SENIOR RECITAL. Two credits.

NURSING EDUCATION
174. PROFESSIONAL RELATIONSHIPS AND TRENDS. Three credits.
191, 192, 193. ORIENTATION TO NURSING RESEARCH. One to three credits. Maximum three credits.
204. WARD TEACHING AND MANAGEMENT. Three credits.
205. CURRICULUM IN SCHOOLS OF NURSING. Three credits.
206. ORGANIZATION AND ADMINISTRATION OF SCHOOLS OF NURSING. Three credits.

PHYSICS
151. OPTICS. Four credits.
151A. OPTICS LABORATORY. Two credits.
152. ATOMIC PHYSICS. Four credits.
152A. ATOMIC PHYSICS LABORATORY. Two credits.
153. NUCLEAR PHYSICS. Four credits.
153A. NUCLEAR PHYSICS LABORATORY. Two credits.
161, 162, 163. THEORETICAL MECHANICS. Three credits each quarter.
191, 192, 193. SPECIAL PROBLEMS IN PHYSICS. One to three credits.

RELIGION
151. RELIGION IN AMERICA. Three credits.
152. MODERN DENOMINATIONS. Three credits.
153. WORLD RELIGIONS. Three credits.
161, 162, 163. PHILOSOPHY OF RELIGION. Two credits each quarter.
186. ESCHATOLOGY. Three credits.
167, 168. CHRISTIAN DYNAMICS. Two credits each quarter.
169. STUDIES IN CHRISTIAN DYNAMICS. Two credits.
174, 175, 176. BIBLICAL BACKGROUND. Two credits each quarter.
184, 185, 186. NEW TESTAMENT EPISTLES. Two credits each quarter.
191, 192, 193. SPECIAL PROBLEMS IN RELIGION. One to three credits. Maximum three credits.
194, 195, 196. SEMINAR IN RELIGION. One credit each quarter.

SPEECH
161. RADIO SPEECH. Three credits.
173. PERSUASIVE SPEAKING. Three credits.
191, 192, 193. SPECIAL PROBLEMS IN SPEECH. One to three credits. Maximum three credits.