



GENERAL  
EXTENSION  
DIVISION  
**BULLETIN**

FOR THE

Portland State  
Extension Center

PORTLAND • OREGON

ANNOUNCEMENT  
OF COURSES  
**1952 - 1953**

OREGON STATE SYSTEM OF HIGHER EDUCATION

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# *Portland State Extension Center*

**University of Oregon  
Oregon State College  
Oregon Colleges of Education**

## **ANNOUNCEMENTS 1952-53**

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## Oregon State System of Higher Education

The Oregon State System of Higher Education, as organized in 1932 by the State Board of Higher Education following a federal survey of higher education in Oregon, includes all the state-supported institutions of higher learning. The several institutions are now elements in an articulated system, parts of an integrated whole. The educational program is so organized as to distribute as widely as possible throughout the state the opportunities for general education and to center on a particular campus specialized, technical, and professional curricula closely related to one another.

The institutions of the State System of Higher Education are the University of Oregon at Eugene, Oregon State College at Corvallis, the Oregon College of Education at Monmouth, the Southern Oregon College of Education at Ashland, and the Eastern Oregon College of Education at La Grande. The University of Oregon Medical School and the University of Oregon Dental School are located in Portland.

Each of the five institutions provides the general studies fundamental to a well-rounded education. At the three colleges of education general and professional studies are combined in the teacher-training curriculum; students who do not plan to become elementary-school teachers may devote their time exclusively to lower-division studies in the liberal arts and sciences or (at Southern Oregon and Eastern Oregon colleges of education) to approved lower-division programs in semiprofessional fields.

At the University and the State College two years of unspecialized work in liberal arts and sciences are provided on a parallel basis in the lower division. Major curricula, both liberal and professional, are grouped on either campus in accordance with the distinctive functions of the respective institutions in the unified State System of Higher Education.

An interinstitutional booklet "Your Education" which outlines curricula for the several institutions and contains other general information is available. For a copy, write to Division of Information, Board of Higher Education, Eugene, Oregon.

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**Fall Term 1952-53****Academic Calendar**

September 15 to 20	<i>Monday to Saturday</i>	Registration for adult evening program, classes begin as scheduled.
September 15 and 16	<i>Monday and Tuesday</i>	Placement examinations for beginning freshmen.
September 17	<i>Wednesday</i>	Registration for former Vanport students.
September 18	<i>Thursday</i>	Day program registration for freshmen and students entering for the first time with last names beginning with A-L.
September 19	<i>Friday</i>	Day program registration for freshmen and students entering for the first time with last names beginning with M-Z.
September 22	<i>Monday</i>	Day program begins as scheduled.
October 4	<i>Saturday</i>	In day program last day for new registrations, for addition of new courses, or for dropping courses. In evening program last day for payment of fees without penalty, or changing from audit to credit.
October 5	<i>Sunday</i>	Freshmen Reception and Convocation.
October 25	<i>Saturday</i>	Last day for withdrawing from school, or to change from credit to audit.
November 1 and 2	<i>Saturday and Sunday</i>	Homecoming.
November 27-30	<i>Thursday to Sunday</i>	Thanksgiving recess.
December 8-13	<i>Monday to Saturday</i>	Evening program final examinations.
December 13	<i>Saturday</i>	Evening program quarter ends.
December 15-20	<i>Monday to Saturday</i>	Day program final examinations.
December 20	<i>Saturday</i>	Day program quarter ends.

**Winter Term 1952-53**

January 5-10	<i>Monday to Saturday</i>	Registration for evening program, classes begin as scheduled.
January 5	<i>Monday</i>	Registration for day program.
January 6	<i>Tuesday</i>	Day program classes begin as scheduled.

**Portland State Extension Center****Winter Term 1952-53**

January 19	<i>Monday</i>	In day program last day for new registrations, for addition of new courses, or for dropping courses. In evening program last day for payment of fees without penalty, or changing from audit to credit.
February 7	<i>Saturday</i>	Last day for withdrawing from school, or to change from credit to audit.
March 16-21	<i>Monday to Saturday</i>	Final examinations for day and evening programs.
March 21	<i>Saturday</i>	Winter quarter ends.

**Spring Term 1952-53**

March 30 to April 4	<i>Monday to Saturday</i>	Registration for evening program, classes begin as scheduled.
March 30	<i>Monday</i>	Day program registration.
March 31	<i>Tuesday</i>	Day program classes begin as scheduled.
April 13	<i>Monday</i>	In day program last day for new registrations, for addition of new courses, or for dropping courses. In evening program last day for payment of fees without penalty, or changing from audit to credit.
May 2	<i>Saturday</i>	Last day for withdrawing from school, or for changing from credit to audit.
May 21 and 24	<i>Thursday and Sunday</i>	Seventh Anniversary of day program and open house.
June 8-13	<i>Monday to Saturday</i>	Final examinations for day and evening programs.
June 13	<i>Saturday</i>	Spring quarter ends.

**Portland Summer Session 1953**

June 22	<i>Monday</i>	Registration.
August 14	<i>Friday</i>	Summer Session ends.

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CHARLES DAVID BYRNE, Ed.D., Chancellor

FREDERICK MAURICE HUNTER, Ed.D., LL.D., Honorary Chancellor

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RODERICK GLEN LANGSTON, Ed.D.  
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Principal, Irvington School.
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## ***General Information***

Portland State Extension Center is an undergraduate and graduate collegiate instructional program formed by combining the former Vanport Extension Center and the Portland Extension programs. It is operated by the General Extension Division of the Oregon State System of Higher Education. This is the agency through which the University of Oregon, Oregon State College, and the three Oregon Colleges of Education serve the people of Oregon through extension classes, short courses, correspondence study, visual instruction, radio programs, summer sessions, and special activities. The instructional program of the Portland State Extension Center is divided into a day program, a night program, and a summer session program.

The *day program* offers lower-division work for full-time students. Entrance requirements, instructional programs, and co-curricular activities are similar to those offered full-time students on the freshman and sophomore levels on other campuses of the Oregon State System of Higher Education.

The *night program* offers approximately 250 courses in over 30 departments and professional schools. Both graduate and undergraduate classes are scheduled, and the work of these classes is of standard college or university grade.

The *Portland Summer Session* is a day program only, offering a selection of both graduate and undergraduate courses from the University of Oregon, Oregon State College, and the three Oregon Colleges of Education. Particular emphasis is placed on elementary and secondary teacher education.

**LOCATION.** The Portland State Extension Center building is located at 1620 S.W. Park Avenue, Portland 1, Oregon. The telephone number is CApitol 4251. Administrative offices and the majority of the classes are housed in this location. (*Until September 1, 1952, the administrative offices will be located at 207 Education Center Building, 220 S.W. Alder Street, Portland 4, Oregon. Telephone at this address is ATwater 2165.*)

**ACCREDITATION.** The Portland State Extension Center is a fully accredited instructional program. As one of the correlated units of the Oregon State System of Higher Education, it draws upon the resources, the curricula, and the facilities of all of the state higher educational

institutions. In 1949, the Oregon State Legislature made the day program a permanent and integral part of the Oregon State System of Higher Education. The night program has been in operation for thirty-five years.

Portland State Extension Center does not grant degrees, but credits earned here are accepted as residence credit toward a degree when transferred to the University of Oregon, Oregon State College, or any of the three Oregon Colleges of Education providing they have been earned as a part of a planned degree program. If transferred outside of Oregon, credits earned here may be accepted on the same basis as credits transferred from any of the other schools of the Oregon State System of Higher Education.

A limited number of courses in the day program carrying the statement "terminal credit" are for students who plan to attend college only two years, and these courses may not be acceptable to meet the requirements of any four-year degree program.

#### Veterans

The Portland State Extension Center is approved by the Veterans Administration for training of veterans under P.L. 346, commonly known as the G.I. Bill of Rights, and P.L. 16, which is specifically for disabled veterans. The State of Oregon also has a plan for giving educational assistance to veterans. Veterans interested in these programs should obtain additional individual information from the Veterans Administration, 208 S.W. Fifth Avenue (telephone ATwater 9131), or State Department of Veterans Affairs, State Office Building, 1400 S.W. Fifth Avenue (telephone CApitol 5561).

#### Services and Facilities

**COUNSELING.** The Portland State Extension Center provides academic counseling for both undergraduate and graduate students. Day program students will have an adviser assigned at registration to guide them in the selection of courses. The men's adviser or the women's adviser will assist with academic or personal problems. The adviser assigned the individual day program student at registration may continue as his adviser as long as he is an undergraduate student.

Night program students who are working toward a degree should confer with an adviser regarding the requirements of the school or department in which their majors have been selected. Graduate students particularly should seek the assistance of an adviser.

**LIBRARY.** The Portland State Extension Center Library is located on the second floor of the Portland State Extension Center Building and

includes the entire collections of the General Extension Division Library supplemented by loans from the State of Oregon Library and other sources. In addition, the resources of the Portland Public Library and other municipal, state and federal agencies are available to students.

**BOOKSTORE AND STUDENT COOPERATIVE.** The student-operated bookstore and cooperative provides all assigned textbooks, school supplies, and instructional materials, plus a wide selection of non-required books and miscellaneous articles needed by the students.

**CAFETERIA.** A thoroughly modern cafeteria and soda fountain is available for meals, hot and cold beverages, sandwiches and miscellaneous snacks. It is located on the lower level of the Center building.

#### Fee Schedule

##### A. PORTLAND STATE EXTENSION CENTER—DAY CLASSES

###### FULL-TIME STUDENTS (7 credit hours or more)

###### Resident Students

	Per Term
Tuition .....	\$ 10.00
Laboratory and Course Fee .....	20.00
Incidental Fee .....	17.00
Building Fee .....	5.00
<b>Total Resident Charge .....</b>	<b>\$ 52.00</b>

###### Non-Resident Students

Tuition .....	\$ 10.00
Laboratory and Course Fee .....	20.00
Incidental Fee .....	17.00
Building Fee .....	5.00
Non-Resident Fee (in addition to fees for resident students) .....	60.00
<b>Total Non-Resident Charge .....</b>	<b>\$112.00</b>

Students registered in the Extension Center for 7 credit hours or more, of which at least 4 credit hours are for day classes, are *entitled* to services of the Student Union, Health Service, Gym Suit Service, and Educational and Athletic Activities.

###### PART-TIME STUDENTS (Undergraduates, Graduates and Auditors—

6 credit hours or less)—per credit hour .....

No. of Hours	Total
1 .....	\$12.00
2 .....	12.00
3 .....	18.00
4 .....	24.00
5 .....	30.00
6 .....	36.00

Part-time students who are registered for 3 credit hours or less in day classes regardless of the total number of credit hours in the Extension Center, including Night Classes, are entitled to Student Union Services but are *not entitled* to the other services indicated.

#### B. PORTLAND STATE EXTENSION CENTER—NIGHT CLASSES

Regular registration and course fees, tuition not included, applicable to undergraduates, graduates and auditors.

Per credit hour rate .....	\$ 6.00
Minimum charge for 1 or 2 credit hours for any student .....	12.00
Charge for students carrying 7 credit hours or more .....	52.00

#### C. PART-TIME STUDENTS AND FULL-TIME STUDENTS

Students carrying 7 credit hours or more in the day, evening, or any combination are considered to be full-time students and pay a total flat fee of \$52.00.

#### D. SPECIAL FEES AND FINES—DAY AND NIGHT CLASSES

Late registration fee, for day classes, per day .....	\$1.00
Late registration fee, for night classes, per week .....	1.00
Late registration fee for students enrolled in day and night classes, per day .....	1.00
Change of Program Fee (assessable after last day to add courses) .....	1.00
Reinstatement Fee .....	2.00
Transcript Fee (first one is free, where multiple copies are simultaneously desired charge for additional copies 50c each. Subsequently first copy at any one time is \$1, and additional copies furnished simultaneously 50c each) .....	50c-1.00
Graduate qualifying examination fee .....	\$1.00 to \$15.00
Staff Fee—per credit hour .....	3.00

(Available only to full-time employees, academic and non-academic, upon approval of Dean's office. Maximum of five credits per quarter. Fee and maximum credit hour limitations waived for retired employees, subject to approval of Dean's office. Not entitled to privileges of Incidental Fee).

#### Definitions

A *term* is a division of the academic year and is approximately three months in length. Example: Winter term is in January, February, and March.

A *course* is a subject, or an instructional subdivision of a subject, offered through a single term. Example: Hst 201. (U) History of the United States.

A *year sequence* consists of three closely articulated courses extending through three terms of the academic year. Example: Hst 201, 202, 203 (U) History of the United States.

A *Curriculum* is an organized program of study arranged to provide integrated cultural or professional education. Example: Pre dental curriculum.

A *term hour* represents three hours of the student's time each week for one term. This time may be assigned to work in classroom or laboratory or to outside preparation. The number of lecture, recitation, laboratory, or other periods per week for any course may be found in the course descriptions given in this Bulletin.

A *grade* is a mark used to measure the quality of a student's work in an academic course: *A*, exceptional accomplishment; *B*, superior; *C*, average; *D*, inferior; *F*, failure; *Inc*, incomplete; *W*, withdrawn. When a course has not been completed for reasons acceptable to the instructor, a report of *Inc* may be made and additional time granted—but not to exceed one year. A student who discontinues attendance in a course without officially withdrawing through the Registrar within the time designated on the academic calendar receives a grade of *F* in the course.

A *grade point* is a numerical system of computing the quality of a student's work. Grade points are computed on the basis of 4 points for each term hour of *A* grade; 3 for *B*; 2 for *C*; 1 for *D*; and 0 for *F*. Marks of *Inc* and *W* are disregarded in the computation of grade points. The *grade point average* (GPA) is found by dividing the total of grade points earned by the total number of hours for which the student has been registered. The grade point average that is used as a standard of acceptable scholarship is computed on all work for which the student receives credit, including work for which credit is transferred, correspondence study, and work validated by special examination.

A *group requirement* refers to the basic courses listed under three classifications; language and literature, social science, and science and mathematics. Any year sequence listed under one of these groups may be taken to satisfy that group requirement.

**COURSE NUMBERING SYSTEM.** Courses are numbered in accordance with the course numbering system of the Oregon State System of Higher Education.

Lower-division (freshman and sophomore) courses are numbered from 1 to 299; 1-99 are courses in the first two years of foreign language, or other courses of similar grade; 100-110, 200-210 are survey or foundation courses that satisfy the lower-division group requirements in language and literature, social science, and science and mathematics groups;

and 111-199, 211-299 are other courses offered at first-year and second-year levels.

Upper-division (junior and senior) courses are numbered from 300 to 499. Courses numbered from 400 to 499 are primarily for seniors, but certain of these courses may be taken for graduate credit, in which case the course is designated (G) if approved for graduate major credit or (g) if approved for graduate minor credit.

Graduate courses are numbered from 500 to 499.

#### **Other General Extension Division Facilities**

**DEPARTMENT OF STATE-WIDE SERVICES.** These services consist of State-Wide Evening classes, correspondence study courses, conferences, and workshops. Any community in Oregon may become an extension-class center if a satisfactory meeting place is provided and sufficient enrollment is guaranteed to cover actual operating costs. Students may frequently find a schedule of correspondence courses through which to continue their program of study when not in residence. Conferences are conducted for business and professional groups and in-service institutes and workshops are organized to assist school districts.

**VISUAL INSTRUCTION.** The Department of Visual Instruction of the General Extension Division provides glass and film slides, microscopic slides, and motion picture films suitable for use by schools, community clubs, and other organizations. A special catalog is published listing the materials available. Located on the campus of Oregon State College in the Coliseum at Corvallis, the department is maintained jointly by the General Extension Division and the Federal Cooperative Extension Service.

**RADIO STATION KOAC.** Radio Station KOAC is Oregon's state-owned station of which the State Board of Higher Education is the managing agency. The station is located at Corvallis on the campus of Oregon State College, the licensee and operator of the physical plant; and the General Extension Division of the State System of Higher Education directs the program service. Program talent is drawn from Oregon State College, the University of Oregon, and the three Oregon Colleges of Education, and from various departments of the state government. Many other public agencies, organizations, and individuals contribute frequently to broadcasts. KOAC operates with 5,000 watts power in the daytime and 1,000 watts power in the evening on a frequency of 550 kilocycles by authority of the Federal Communications Commission. The station is

operated in the interest of the Oregon public, and programs are free of commercialism. Program schedules are issued periodically and will be furnished on request. Studios are located at Corvallis, Eugene, Monmouth, and Salem. "Tapes for Teaching" are provided for the schools of Oregon as a special service.

## Day Program

*(All students are expected to be familiar with the regulations and requirements given in the section of this Bulletin entitled "General Information." They apply to both day program and night program students.)*

The advantages of attending the day program of the Portland State Extension Center vary from student to student. To many Portland students, a local institution such as the Portland State Extension Center, which they may attend while living at home, means the difference between going and not going to college. Many students are able to find part-time jobs in the large metropolitan area and thus help themselves through college. Others like to remain in their home city where they can continue in their own circle of friends and families and belong to their familiar groups, churches, clubs, and other organizations. The individual attention given and interest in each student by the faculty and staff of the Center appeal to many. The two-year feature attracts those students who do not plan a full four-year college program but who desire courses useful in the professions they intend to follow or for cultural development and citizenship. Other students like to test their college abilities and explore several fields of study before selecting a major for specialization in a four-year college or professional school.

A law passed in 1949 requires the Center to offer lower-division work which is the practical equivalent of the courses and studies now made available during the first two years of academic training at the University of Oregon, Oregon State College, and the Colleges of Education, and such other courses and curricula as are deemed advisable by the State Board of Higher Education. Thus, a student may take two years of work in many of the major fields included in the Oregon State System institutions. Preprofessional fields include business administration, business and technology, liberal arts, elementary education, prelaw, science, science, social science, pre-engineering, preforestry, prenursing, nad prepharmacy. Terminal fields include secretarial science, courses for dental and medical assistants, and police training.

### Academic Regulations

**ADMISSION REQUIREMENTS.** To be admitted to the day program of the Portland State Extension Center, a student must be of good moral char-

acter and must present evidence of acceptable preparation for work at the college level.

Any person seeking admission as a full-time day student must: (1) submit an original application form which may be obtained by writing to the Registrar, General Extension Division, 1620 S.W. Park Avenue, Portland 1, Oregon, (Telephone CApitol 4251); and (2) request the high school from which a student was graduated and any college which he has attended to forward official transcripts of the records to the Registrar, General Extension Division.

Applications and transcripts should be filed several weeks before the applicant intends to enter the Portland State Extension Center.

**ADMISSION TO FRESHMAN STANDING.** The requirements for admission to first-year or freshman standing conform to the following uniform entrance requirements adopted by all the state institutions of higher education in Oregon:

Graduation from a standard high school which in Oregon requires the completion of 16 units, 8 of which are required as follows: 3 units in English; 2 units in social science, comprising the state-adopted courses in United States history-civics and socio-economic problems; 1 unit in health and physical education; 1 unit in mathematics; and 1 unit in the natural sciences. In order to be admitted to any of the four-year curricula in engineering, except industrial arts, a student must present 1 unit in elementary algebra,  $\frac{1}{2}$  unit in higher algebra, and 1 unit in plane geometry. A student deficient in mathematics may be admitted but must make up the deficiency before carrying the standard engineering program.

Graduates from standard out-of-state high schools are required to present substantially the same distribution of subject-matter units. Applicants who are not residents of Oregon may be held for additional requirements demonstrating superior ability.

Persons graduating in the lower half of their class and who can demonstrate college ability on the basis of other criteria may be admitted. Students who have attended another college and who have a 2.00 grade average, (C), are eligible for admission. Individuals who cannot meet these standards may petition for admission on a probationary basis in the day program.

**CREDIT HOUR LOAD.** In the day program a student normally enrolls for no more than 17 term hours. Students whose grade point average is 3.00 or better may petition to take more than 17 term hours.

A student must obtain permission in advance to take courses at other educational institutions. If such courses are taken without permission, the Portland State Extension Center reserves the right to withhold credit for courses in which the student is currently enrolled.

**REGISTRATION.** Day program students should register during the first



few days of each term in accordance with the schedule designated on the academic calendar.

**TWO-YEAR COURSES.** Terminal curricula—that is, programs designed to be completed in one or two years—are offered to improve the vocational proficiencies and the general cultural background. Terminal courses include such fields as engineering, secretarial science and business.

**FOREIGN LANGUAGE REQUIREMENTS.** The foreign language requirement depends on whether or not a student intends to graduate from a four-year institution; and, if so, on the degree and the institution granting that degree. In the Oregon State System of Higher Education a foreign language is required for the Bachelor of Arts degree but not for the Bachelor of Science degree. Many graduate degrees require a reading knowledge of one or more foreign languages. A student should consult an adviser on this subject.

**ENTRANCE EXAMINATIONS.** If a student is a graduate of a standard high school, no examination is required to determine eligibility for entrance. However, placement and other examinations are given to help the student plan a course of study. The placement examination taken depends upon the course and the student's individual needs.

**SELECTION OF A MAJOR FIELD.** Many students select their major field long before they enter college. Others complete a year or more of varied college work to determine their interests. Even after a choice is made, students may change majors as their college experiences reveal new abilities and interests. Most students unsure of their interests or of their abilities in a specific field sign up as liberal arts majors, because subjects in this field are helpful in general development, and many of the courses are required for entrance into professional schools or for graduation in a specific major.

**SCHOLARSHIP REQUIREMENTS.** The regulations governing scholarship requirements are made by a faculty committee. This committee has discretionary authority in the enforcement of rules governing probation, and also has authority to drop a student when it appears that his work is such that he cannot continue with profit to himself and with credit to the institution. In general, profitable and creditable work means substantial progress toward meeting graduation requirements.

A freshman student is automatically placed on probation if his grade-point average for any term is below 1.50. He is not released from probation until his grade-point average for a subsequent term is at least 1.75.

A sophomore student is automatically placed on probation if his grade-point average for any term is below 1.75. He is not released from probation until his grade-point average for a subsequent term is at least 2.00.

A student may be suspended if his cumulative GPA after three terms is less than 1.50. This same minimum cumulative GPA applies to the fourth term, after which a student's cumulative GPA must be 1.75 or more to allow him to remain enrolled. These minimum standards are subject to discretionary action by the faculty academic committee.

In addition, cumulative grade-point standards must be met by the student to insure his satisfactory program toward Junior Certificate requirements.

**REQUIREMENTS FOR JUNIOR STANDING.** Upper-division standing is required in institutions of the Oregon State System of Higher Education in order to pursue a major curriculum leading to a degree. A student may fulfill the requirements for upper-division standing during two years at the Portland State Extension Center. The requirements are:

- (1) Term Hours: Minimum, 93. (96 for engineering and forestry students).
- (2) Grade-Point Average: Minimum, 2.00.
- (3) English:
  - (a) Freshmen must take and pass a course designated Wr K unless excused on the basis of a high rating in the English Placement examination required upon entrance.
  - (b) English Composition: 9 term hours (Wr 111, 112, 113) unless excused. A student whose work is of unusually high quality may, with the consent of the Head of the Department of English, be excused at the end of any term from further required written English.
- (4) Physical Education: 5 terms in activity courses, unless excused. (Veterans may be excused.)
- (5) Health Education: HE 250 will satisfy the requirement for men or women. (Veterans may be excused.) Men may take HE 150, Health Education in place of HE 250 to meet the requirement.
- (6) Group Requirements: A prescribed amount of work selected from three "groups" representing comprehensive fields of knowledge. The three groups are: language and literature, social science, and science and mathematics. Courses that satisfy group requirements are numbered from 100 to 110 and from 200 to 210. The group requirements are:
  - (a) At least 9 approved term hours in each of the three groups and at least 9 additional approved term hours in courses numbered 200-210 in any of the three groups.
  - (b) In the professional and technical major, the general courses and group requirements are specifically named in the Bulletin.

Students should study the Bulletin of the institution to which they plan to transfer to be sure that all of its requirements for upper-division standing are met.

**TWO-YEAR CERTIFICATES.** A *Two-Year Certificate* recognizes the successful completion of two years of lower-division work. This certificate is issued upon the request of a student.

### Services and Facilities

**STUDENT LOANS.** Students who need short term loans may borrow from the Portland State Extension Center Loan Fund made available from gifts and other sources including the Portland State Mothers' Club and the Portland State Cooperative.

**SCHOLARSHIPS.** The Oregon State System of Higher Education awards a limited number of scholarships annually. These are open both to old and to new students. The scholarship pays \$90.00 for the academic year for each recipient. They are awarded on the basis of financial need and academic record.

**STUDENT EMPLOYMENT.** Part-time jobs are listed in the office of the Dean of Men. There is a wide variety of jobs available at most times for students desiring part-time work.

**STUDENT COOPERATIVE.** The students maintain their own Cooperative organization which makes available to them books, school supplies, and other needed articles on a nonprofit basis.

**STUDENT LOUNGE.** The cafeteria and snack bar on the lower level of the Center building is so arranged as to accommodate students as an informal lounge and gathering place.

### Activities

**ATHLETICS.** Athletics include the major sports of baseball, football, basketball, track and wrestling, and a wide variety of minor sports such as golf, skiing, tennis, and swimming. Entering freshmen may qualify for varsity participation. After one or two years of competition, a student may transfer to a four-year college and be eligible to play immediately. The varsity "P" is awarded to those who earn letters in the major or minor sports. There is an intramural sports program for all students which includes football, basketball, baseball, tennis, gymnastics, golf, and other sports. Intramural sports and physical education are available for women as well as for men.

**MILITARY TRAINING.** The day program has no compulsory military

training program for its students. Many opportunities are open in the Portland area to students on a voluntary basis. These include the Naval Reserve—which maintains an excellent Training Center at Swan Island—the U. S. Army, the U. S. Air Force, and the National Guard. Qualified students interested in officer training will find a number of opportunities available.

**PUBLICATIONS.** The students publish a weekly newspaper and a year-book. Those interested in writing and journalism may become members of the staffs of these two publications.

**COCURRICULAR ACTIVITIES.** Cocurricular activities are a definite and essential part of the program. There are club activities for all tastes and personalities; thus, there is a Forestry Club, and Engineering Club, a Speech Club, and a great number of social and service clubs. Other activities are dramatics, dances and parties. Opportunities for participation in student government are open to all students.

## Group Courses

Year sequences applicable in meeting group requirements are listed below. These courses may also be taken as electives. Descriptions of the courses are given in this catalog.

### Language and Literature Group\*

Eng 101, 102, 103. (U) **Survey of English Literature.** 3 hours each term.  
 Eng 104, 105, 106. (U) **Appreciation of Literature.** 3 hours each term.  
 Eng 107, 108, 109. (C) **World Literature.** 3 hours each term.  
 Eng 201, 202, 203. (U) **Shakespeare.** 3 hours each term.

### Science Group

#### Botany

Bi 204, 205, 206. (U) **General Botany.** 4 hours each term.

#### Chemistry

Ch 104, 105, 106. (S) **General Chemistry.** 4 hours each term.  
 Ch 204, 205, 206. (S) **General Chemistry and Qualitative Analysis.** 5 hours each term.

#### Geology

G 201, 202, 203. (S) **Geology.** 3 hours each term.

#### Mathematics†

Mth 100. (S) **Intermediate Algebra.** 4 hours.

\* The third year of a foreign language may be offered to meet this group requirement. Students should consult their advisers about foreign-language requirements for upper-division and graduate courses and for B.A. degree requirements of other institutions.

† Any three of the following meet the science requirement: Mth 100, Mth 101, 102, 103, Mth 105 (U), Mth 108, Mth 109.

Mth 101, 102, 103. (S) **Elementary Analysis**. 4 hours each term.  
 Mth 104, 105, 106. (S) **Mathematics of Business and Industry**. 3 hours each term.  
 Mth 105. (U) **College Algebra**. 4 hours.  
 Mth 108. (U) **Mathematics of Finance**. 4 hours.  
 Mth 109. (U) **Elements of Statistics**. 4 hours.  
 Mth 201, 202, 203. (S) **Differential and Integral Calculus**. 4 hours each term.

### Physics

Ph 101, 102, 103. (S) **Engineering Physics**. 3 hours each term.  
 Ph 201, 202, 203. (S) **General Physics**. 4 hours each term.

### Psychology†

Psy 201, 202. (U) **General Psychology**. 3 hours each term.  
 Psy 204. (U) **Psychology of Adjustment**. 3 hours.  
 Psy 205. (U) **Applied Psychology**. 3 hours.  
 Psy 208, 209, 210. (U) **General Psychology Laboratory**. 1 hour each term.

### Science

GS 101, 102, 103. (S) **Biological Science Survey**. 4 hours each term.  
 GS 104, 105, 106. (S) **Physical Science Survey**. 4 hours each term.

### Zoology

Z 201, 202, 203. (S) **General Zoology**. 3 hours each term.  
 Z 201, 202, 203. (U) **General Zoology**. 4 hours each term.

## Social Science Group

### Anthropology

Anth 207, 208, 209. (U) **Introduction to Cultural Anthropology**. 3 hours each term.

### Economics

Ec 201, 202, 203. (U) **Principles of Economics**. 3 hours each term.

### General Social Science

SSc 101, 102, 103. (U) **Background of Social Science**. 3 hours each term.

### History

Hst 101, 102, 103. (U) **History of Western Civilization**. 3 hours each term.  
 Hst 201, 202, 203. (U) **History of the United States**. 3 hours each term.  
 Hst 204. (S) **History of the Far East**. 3 hours  
 Hst 206. (S) **Modern Russia**. 3 hours  
 Hst 207, 208, 209. (U) **English History**. 3 hours each term.  
 Hst 209. (S) **The World Since 1914**. 3 hours.

### Geography

Geog 105, 106, 107. (S) **Introductory Geography**. 3 hours each term.  
 Geog 201, 202, 203. (S) **Regional Geography**. 3 hours each term.

### Philosophy

Phl 201. (U) **Elementary Logic**. 3 hours.

† Psy 208, 209, 210 must be taken with Psy 201, 202, 204 or Psy 201, 202, 205 to satisfy the science group requirement.

Phl 202. (U) **Problems of Philosophy**. 3 hours.  
 Phl 203. (U) **Elementary Ethics**. 3 hours.

### Political Science

PS 201, 202, 203. (U) **American Government**. 3 hours each term. PS 204 (U) or PS 205 (U) may be substituted for PS 203 (U).

### Psychology

Psy 201, 202. (U) **General Psychology**. 3 hours each term.  
 Psy 204. (U) **Psychology of Adjustment**. 3 hours.  
 Psy 205. (U) **Applied Psychology**. 3 hours.

### Sociology

Soc 204, 205, 206. (U) **General Sociology**. 3 hours each term.

## Major Fields Offered

The following table lists major fields offered students in the Day Program of the Portland State Extension Center, and the state institutions offering remaining years leading to a degree:

Field	No. of Years Work offered at Portland State Extension Center	State System Institutions offering remaining years leading to a degree
Pre-Agriculture	1	State College
Pre-Architecture and Allied Arts	1	University
Biology-Botany	2	State College-University
Business Administration	2	University
Business and Technology	2	State College
Secretarial Science	2	State College
Chemistry	2	State College-University
Elementary Education	2	All Colleges of Education
Secondary Education	2	University-State College
English	2	University
History	2	University
Industrial Arts Education	2	State College
Industrial Arts	2	State College
Chemical Engineering	1	State College
Civil Engineering	2	State College
Electrical Engineering	2	State College
Industrial Engineering	2	State College
Mechanical Engineering	2	State College
Preforestry	1	State College
Prelaw	2	University
Liberal Arts	2	University
Mathematics	2	State College-University
Prejournalism	2	University
Premedical	2	University-State College
Predental	2	University Dental School
Music	2	University

Prenursing	2*	Medical School
Prepharmacy	2	State College
Psychology	2	University
Prephysical Education (men and women)	2	University-State College
Physics	2	State College-University
Political Science	2	University
Sociology	2	University
Speech	2	University
Zoology	2	State College-University

### Courses of Study in Terminal Fields

The Day Program offers the following selection of terminal courses.

Such programs are designed for students who do not plan to work toward a baccalaureate or professional degree. Certain specified courses cannot under any circumstances be transferred to a regular degree program.

#### Terminal Business

##### Medical and Dental Secretaries

(This is a terminal curriculum to be completed in two years.)

Freshman Year	Term hours		
	F	W	S
Typing—SS 121, 122, 123 (S)	2	2	2
Stenography—SS 111, 112, 113 (S)	3	3	3
English Composition—Wr 111 (U)	3	-	-
First Aid—HE 252 (U)	-	-	3
Biological Science Survey—GS 101, 102, 103 (S)	4	4	4
Personal Health—HE 250 (U) (or HE 150 for men)	-	2-3	-
Constructive Accounting—BA 111, 112, 113 (U)	3	3	3
Physical Education—PE 180 or 190 (U)	1	1	1
Orientation—SSc 111 (C)	1	-	-
<b>Sophomore Year</b>	<b>17</b>	<b>15-16</b>	<b>16</b>
Office Apprenticeship—MD 290 (C)	-	-	4
Office Practice—SS 241, 242 (C)	3	3	-
General Psychology—Psy 201 (U)	3	-	-
Applied Stenography—SS 211, 212, 213 (S)	3	3	3
Business English—Wr 214 (U)	3	-	-
Salesmanship—Mer 238 (C)	-	3	-
Business Law—SS 256 (C)	-	-	3
General Chemistry—Ch 104, 105, 106 (S)	4	4	4
Fundamentals of Speech—Sp 111 (U)	-	3	-
Physical Education—PE 180 or 190 (U)	1	1	1
Elective	-	-	2
	<b>17</b>	<b>17</b>	<b>17</b>

\* Five quarters.

### Merchandising

(This is a terminal curriculum to be completed in two years.)

#### Freshman Year

	Term hours		
	F	W	S
Salesmanship—Mer 238 (C)	-	3	-
English Composition—Wr 111, 112, 113 (U)	3	3	3
Constructive Accounting—BA 111, 112, 113 (U)	3	3	3
Introductions to Business and Industry—BA 111, 112 (S)	3	3	-
Elements of Marketing—BA 223 (U)	-	-	4
Typing—SS 121, 122, 123 (U)	2	2	2
Physical Education—PE 180 or 190 (U)	1	1	1
Group requirements in social science	3	3	3
Orientation—SSc 111 (C)	1	-	-
<b>Sophomore Year</b>	<b>16</b>	<b>18</b>	<b>16</b>
Principles of Economics—Ec 201, 202, 203 (U)	3	3	3
Physical Education—PE 180 or 190 (U)	1	1	-
Personal Health—HE 250 (U) (or HE 150 for men)	-	-	3
Elements of Finance—BA 222 (U)	4	-	-
Elements of Organization and Production—BA 221 (U)	-	4	-
Mathematics of Business and Industry—Mth 104, 105, 106 (S) or electives	3	3	3
Business English—Wr 214 (U)	3	-	-
Business Law—SS 256 (C)	-	-	3
Merchandise Apprenticeship—Mer 290 (C)	-	3	3
Electives*	3	3	2
	<b>17</b>	<b>17</b>	<b>17</b>

### Engineering and Industrial Arts

#### General Engineering

(This is a two-year terminal curriculum for students who do not plan to complete the four-year course.)

#### Freshman Year

Engineering Drawing—GE 121, 122 (S)	3	3	-
Engineering Fundamentals—GE 104, 105, 106 (S)	3	3	3
Elementary Algebra—Mth 10 (S)	4	-	-
English Composition—Wr 11, 112, 113 (U)	3	3	3
Physical Education—PE 190 (U)	1	1	1
Orientation—SSc 111 (C)	1	-	-
Intermediate Algebra—Mth 100 (S)	-	4	-
General Physics—Ph 201, 202 (S)	-	4	4
Descriptive Geometry—GE 123 (S)	-	-	3
Elementary Analysis—Mth 101 (S)	-	-	4
	<b>15</b>	<b>18</b>	<b>18</b>

\* The following Portland State Extension Center Night Program courses may be taken with instructor's permission in place of other electives: Cost Accounting—BA 312; Analysis of Financial Statements—BA 313; Advertising—BA 339; Office Organization and Management—BA 323; Salesmanship—BA 442; Retail Store Management—BA 436; Personnel Management—BA 412, 413.

	Term hours		
	F	W	S
<i>Sophomore Year</i>			
Foundry Practices—IE 240 (S)	2	-	-
General Engineering—GE 201, 202, 203 (S)	4	4	4
Business English—Wr 214 (U)	3	-	-
Fundamentals of Speech—Sp 111 (U)	3	-	-
Pattern Making—IE 111 (S)	3	-	-
Physical Education—PE 190 (U)	1	-	-
Structural Drafting—GE 211 (S)	-	3	-
Technical Report Writing—Eng 227 (S)	-	3	-
Machine Tool Practices—IE 260 (S)	-	2	-
Personal Health—HE 250 (U)	-	3	-
Elementary Machine Drafting—GE 212 (S)	-	-	3
Forging and Welding—IE 250 (S)	-	-	2
Plane Surveying CE 226 (S)	-	-	3
Approved elective	-	-	4
	16	15	16

### Police Training

(This is a terminal curriculum to be completed in two years.)

Advisory Committee for Police Training Curriculum:

GORDON O. AUBORN, Captain, Multnomah County Sheriff's Office.  
 WILLIAM D. BROWNE, Chief of Detectives, Portland Police Department.  
 GEORGE J. CHURCH, Secretary, Multnomah County Civil Service Commission.  
 T. L. CULHANE, Personnel Director, Municipal Civil Service Board.  
 FRED FOWLER, Traffic Engineer, City of Portland.  
 VAYNE M. GURDANE, Department of State Police.  
 STANLEY MACDONALD, Identification Department, Sheriff's Office, Multnomah County.  
 J. J. MURCHISON, Judge, Municipal Court.  
 C. D. MURRELL, District Intelligence Office Eleventh Naval District.  
 C. D. NEWMAN, Captain, Oregon City Police Department.  
 JAMES PURCELL, Deputy Chief, Portland Police Department.  
 J. J. QUILLIN, Presiding Judge of the Municipal Court.  
 JAMES J. RICHARDSON, Member, State Board of Parole and Probation.  
 TERRY SCHRUNK, Sheriff, Multnomah County.  
 MILES WOODWORTH, Fire Marshal, City of Portland.

#### Freshman Year

*Police and Society—LE 011 (U)	2	-	-
*Organization and Administration of Law Enforcement Agencies—LE 012 (E)	-	2	-
*Elements of Law for Police Officials—LE 013 (E)	-	-	2
English Composition—Wr 111, 112, 113 (U)	3	3	3
American Governments—PS 201, 202, 203 (U)	3	3	3
First Aid—HE 252 (U)	-	-	3
Health Education—PE 150 (U)	1	-	-
Typing—SS 121 (S)	2	-	-
Swimming—PE 227 (U)	-	2	-
Physical Education—PE 190 (U)	1	-	1
General Sociology—Soc 204, 205, 206 (U)	3	3	3
Fundamentals of Speech—Sp 111 (U)	-	3	-
	15	16	15

\* Terminal professional courses which may not be counted toward a degree, or transferred to another institution.

#### Sophomore Year

	Term hours		
	F	W	S
*Police Techniques I, Evidence—LE 021	2	-	-
*Police Techniques II, Identification—LE 022	-	2	-
*Police Techniques III, Traffic Control and Field Work	-	-	2
General Psychology—Psy 201, 202 (U)	3	3	-
Applied Psychology—Psy 205 (U)	-	-	3
Fundamentals of Conditioning—PE 127 (U)	2	-	-
Tumbling and Apparatus—PE 128 (U)	-	2	-
Wrestling—PE 229 (U)	-	-	2
Physical Science Survey—GS 104, 105, 106 (S)	4	4	4
Outlines of Economics—Ec 212 (S)	3	-	-
History of Oregon—Hst 377 (S)	-	3	-
Rudiments of Photography—Ph 161 (S)	-	-	2
Shorthand, anthropology, current affairs, radio or electives	3	3	4
	17	17	17

### Secretarial Science

This is a terminal curriculum to be completed in two years.)

#### Freshman Year

Typing—SS 121, 122, 123 (S)	2	2	2
Stenography—SS 111, 112, 113 (S)	3	3	3
English Composition—Wr 111, 112, 113 (U)	3	3	3
Physical Education—PE 180 or 190 (U)	1	1	1
Introduction to Business and Industry—BA 111, 112 (S)	3	3	-
Orientation—SSc 111 (C)	1	-	-
Constructive Accounting—BA 111, 112, 113 (U)	3	3	3
Elective	-	-	3

#### Sophomore Year

Applied Stenography—SS 211, 212, 213 (S)	3	3	3
Office Practice—SS 241, 242, 243 (C)	3	3	3
Business English—Wr 214 (U)	3	-	-
Business Law—SS 256 (C)	-	-	3
Salesmanship—Mer 238 (C)	-	3	-
Merchandise Apprenticeship—Mer 290 (C)	-	-	3
History of the United States—Hst 201, 202 (U) or			
Principles of Economics—Ec 201, 202 (U)	3	3	3
Physical Education—PE 180 or 190 (U)	1	-	1
Personal Health—HE 250 (U) (or HE 150 for men)	3	-	-
Fundamentals of Speech—Sp 111 (U)	-	3	-
Elective	-	3	-
	16	18	16

\* Terminal professional courses which may not be counted toward a degree, or transferred to another institution.

**One-Year Curriculum in Secretarial Science**

(For students with high-school work in typing and shorthand.)

	Term hours		
	F	W	S
Applied Stenography—SS 211, 212, 213 (S)	3	3	3
Office Practice—SS 241, 242, 243 (C)	3	3	3
Constructive Accounting—BA 111, 112 (U)	3	3	-
English Composition—Wr 111, 112, 113 (U)	3	3	3
Physical Education—PE 180 or 190 (U)	1	1	1
Orientation—SSc 111 (C)	1	-	-
Personal Health—HE 250 (U) (or HE 150 for men)	-	-	3
Electives	3	3	4
	17	16	17

**Elementary Education (Cooperative Elementary Teacher-Education Degree Program)**

Portland State Extension Center has entered into a cooperative arrangement with the state colleges of education, located at Monmouth, Ashland, and La Grande, to provide preparation for elementary teaching under an emergency five-year plan ending July 1, 1956. Under this plan, students qualifying for a Junior Certificate, or with equivalent preparation, in their first two years, may enroll in the specified junior-year curriculum for elementary teacher education in the Night Program of the Portland State Extension Center. Upon specific recommendation of the Dean of the General Extension Division, this will be followed by a fourth year of concentrated professional preparation at one of the colleges of education. The student may return to Portland for the third term of the senior year, consisting of 10 term hours of student teaching and 6 term hours of course work, directed by the college of education. Upon completion of all requirements, the student will be awarded the degree of Bachelor of Science in Elementary Education by the college of education attended.

This cooperative elementary-education degree program is intended to provide opportunity during the emergency for students already enrolled in the Portland State Extension Center to prepare for elementary teaching. Center students may transfer to any Oregon college of education at the end of their freshman or sophomore year without loss of time or credit. The State Board of Higher Education maintains a full four-year program for professional preparation of elementary teachers in each of the three colleges of education (Monmouth, La Grande, and Ashland), and high school seniors who have decided to prepare for elementary teaching are normally advised to enroll as freshmen at one of these colleges.

**(Four-Year Curriculum in Elementary Education)****\*Freshman Year (at Portland State Extension Center)**

	Term hours		
	F	W	S
English Composition—Wr 111, 112, 113 (U)	3	3	3
Physical Science Survey—GS 104, 105, 106 (S)	4	4	4
Biological Science Survey—GS 101, 102, 103 (S)	4	4	4
Background of Social Science—SSc 101, 102, 103 (C)	3	3	3
Orientation—SSc 111 (C)	1	-	-
Personal Health—HE 250 (U) (or HE 150 for men)	2	-	-
Fundamentals of Speech—Sp 111 (U)	-	3	-
Physical Education—PE 180 or PE 190 (U)	1	1	1
Elective	-	-	1

**\*Sophomore Year (at Portland State Extension Center)**

Educational Psychology—Ed 312 (C)	18	18	16
World Literature—Eng 107, 108, 109 (C)	-	-	3
Social Science—History of Western Civilization or Principles of Economics or General Sociology	3	3	3
General Psychology—Psy 201, 202 (U)	3	3	-
Introductory Geography—Geog 105, 106, 107 (S)	3	3	3
Physical Education—PE 180 or PE 190 (U)	1	1	1
Foundations of Mathematics—Mth 211 (C)	-	-	3
Electives	3	3	-
	16	16	16

**Junior Year (in the night program of the Portland State Extension Center)**

Introduction to Education—Ed 354 (C)	3	-	-
Music I, II—Mus 281, 282 (C)	3	3	-
Art Structure I, II—A 211, 212 (C)	-	3	2
American History and Government—Hst 378, 379 (C)	-	3	3
Comparative Government—PS 380 (C)	-	-	3
History of Oregon—Hst 377 (C)	2	-	-
Health Education—Ed 351 (C)	-	2	-
Child Growth and Development—Psy 261 (C)	-	-	3
Contemporary Problems—SSc 411 (C)	-	-	3
†Foundations of Physical Science—Sc 201, 202, 203 (C)	3	3	3
†Introductory Geography—Geog 105, 106, 107 (C)	3	3	3

**Senior Year (at any Oregon college of education)**

Supervised Teaching—Ed 415 (C)	17	17	17
Elementary Tests and Measurements—Ed 418 (C)	-	5	10
Children's Literature—Eng 388 (C)	3	-	-
School Organization and Law—Ed 476 (C)	3	-	-
Applied Mental Hygiene—Ed 467 (C)	-	-	3
Audio-Visual Aids—Ed 435 (C)	-	3	-
Physical Education in Elementary Grades—Ed 344, 345, 346 (C)	-	3	-
Primary Education—Ed 358 (C)	4	-	-
Intermediate and Upper-Grade Education—Ed 359 (C)	-	4	-
Elementary-School Library—Ed 380 (C)	2	-	-
Music III—Mus 283 (C)	3	-	-
Art Structure III—A 311 (C)	3	-	-
	18	15	16

\* Students who have met the junior-certificate requirements with other courses may enter the junior year of the four-year curriculum.

(Three-Year Curriculum in Elementary Education)

A three-year teacher-education curriculum, preparing for elementary teaching, is authorized at the Oregon Colleges of Education. On completion of this curriculum, the graduate receives a diploma and becomes eligible for certification to teach in the elementary and junior high schools of Oregon. Graduates of the three-year curriculum may proceed without interruption to the completion of the fourth year leading to the bachelor's degree. The year 1952-53 is the last year of entrance into the three-year curriculum. Students who graduate after July 1, 1955 must have four years of training to teach in elementary schools.

	Term Hours		
	F	W	S
<i>Freshman Year (at Portland State Extension Center)</i>			
Biological Science Survey—GS 101, 102, 103 (S)	4	4	4
Introductory Geography—Geog 105, 106 (U)	3	3	—
Personal Health—HE 250 (U)	2	—	—
Background of Social Science—SSc 101, 102, 103 (U)	3	3	3
Foundations of Mathematics—Mth 211 (C)	—	—	3
Physical Science Survey—GS 104 (S)	—	—	4
Fundamentals of Speech—Sp 111 (U)	—	3	—
Physical Education—PE 180 or PE 190 (U)	1	1	1
English Composition—Wr 111, 112, 113 (U)	3	3	3
Orientation—SSc 111 (C)	1	—	—
<i>Sophomore Year (at Portland State Extension Center)</i>			
Primary Education—Ed 358 (C)	—	4	—
Intermediate and Upper-Grade Education—Ed 359 (C)	—	—	4
Introduction to Education—Ed 354 (C)	3	—	—
World Literature—Eng 107, 108, 109 (C)	3	3	3
General Psychology—Psy 201, 202 (U)	3	3	—
Educational Psychology—Ed 312 (C)	—	—	3
Music I, II, III—Mus 281, 282, 283 (C)	3	3	3
Art Structure I, II, III—A 211, 212, 311 (C)	3	2	3
Physical Education in the Elementary Grades—Ed 344, 345, 346 (C)	1	1	1
<i>Junior Year (at any Oregon college of education)</i>			
Supervised Teaching—Ed 415 (C)	5	5	5
Elementary Tests and Measurements—Ed 418 (C)	3	—	—
Children's Literature—Eng 388 (C)	3	—	—
Applied Mental Hygiene—Ed 467 (C)	—	3	—
School Organization and Law—Ed 476 (C)	—	3	—
History of Oregon—Hst 377 (C)	—	—	2
Elementary-School Library—Ed 380 (C)	—	2	—
Health Education—Ed 351 (C)	2	—	—
American History and Government—Hst 378 (C)	—	—	3
Electives	3	3	3
	16	16	16

## Description of Courses

The course descriptions which follow are offered to give the student an idea of the purpose and scope of the courses. Students should note that some courses cannot be taken until a more elementary course has been completed. The elementary course which is the prerequisite for such a course is usually given as part of the course description. For an example of the course-numbering system, see page 24. The hours indicated following the course title represent the term hours of credit which may be earned. The Center reserves the right to discontinue any listed course because of insufficient enrollment or other reasons. The courses offered by the Center are approved by the State Board of Higher Education for one or more of the institutions of the State System. The letter (S) following the course number indicates that it is an Oregon State College course; (U), a University of Oregon course; (C), a college of education course; (E), a General Extension Division course. The statement "Terminal Credit" indicates a course does not carry transfer credit toward a bachelor's degree.

### Anthropology

Anth 207, 208, 209. (U) **Introduction to Cultural Anthropology.** 3 hours each term.

The meaning of culture; its significance for human beings; its diverse forms and degrees of elaboration among different groups of men; its processes of growth and expansion.

### Art and Architecture

AA 201, 202, 203. (U) **Introduction to the Visual Arts.** 3 hours each term.

Designed to develop insight into the actual work of art, and breadth in the understanding of diverse works of art. Introduction to the principal visual arts as related to daily living; sociological and geographical factors in relation to the visual arts. Required for all professional majors; open to nonmajors.

AA 160, 161. (S) **Color and Composition.** 3 hours each term.

Studio classes in the everyday use of the principles of composing or creating with lines, colors, and textures. The course fulfills the art requirements of the School of Home Economics.

AA 195. (U) **Basic Design.** 2 hours any term.

No-grade course. Through individual projects in a series of studio assignments, the student achieves an understanding of design in the basic visual arts, and a familiarity with all the professional fields of the school. Correlated with Introduction to the Visual Arts (AA 201, 202, 203).

**A 211. (C) Art Structure I.** 3 hours.

The elements of design, color, and representation as they are related to the needs of the student. Creative work is stressed, the student receiving actual experience in different media.

**A 212. (C) Art Structure II.** 2 hours.

Problems of construction, decorative design, lettering, and modeling, in many media. Approaches to design are discussed, with emphasis on creative work.

**AA 211, 212, 213. (U) Graphics.** 3 hours each term.

Fall: problems in mechanical and freehand perspective, orthographic projection, shades and shadows, as applied to graphic presentation of architectural design. Winter: media of graphic presentation. Spring: methods and techniques of design presentation.

**A 217. (C) Lettering.** 1 hour.

Lettering, including a study of historic styles such as Roman, Gothic, Old English, as well as the modern decorative, manuscript, and poster types.

**AA 223. (S) Elements of Interiors.** 2 hours.

Introduction to scope, aim, and technique of interior design intended to give understanding of professional field. All work done in drafting room. Open to nonmajor students with consent of instructor.

**AA 290. (U) Lower-Division Painting.** 3 hours any term.

Instruction in the use of oil color, water color, and other media. Registration permitted any term, but it is desirable that the work be started in the fall. 6 hours required for upper-division standing.

**AA 291. (U) Lower-Division Drawing.** 3 hours any term.

Training in observation and selection of significant elements. Registration permitted any term, but it is desirable that the work be started in the fall. 6 hours required for upper-division standing.

**A 311. (C) Art Structure III.** 3 hours.

Evaluation of the various approaches to the creative art experiences made possible in the flexible course of study. Lectures, reading, and discussions deal with recent trends of art expression relative to individual needs at various age levels from primary through the junior high school. Prerequisite: A 211, 212.

**Astronomy**

(See PHYSICS)

**Bacteriology****Bac 200. (S) Bacteriology Laboratory.** 2 hours, spring.

May be taken only with Bac 230, which combination may be used in meeting science group requirement. 2 two-hour laboratory periods.

**Bac 230. (S) Principles of Bacteriology.** 3 hours, spring.

Fundamentals of bacteriology with application to agriculture, industry, sanitation, disease. Prerequisite: one year of chemistry.

**Biology**

(See BOTANY and ZOOLOGY)

**Botany****Bot 201, 202 (S) General Botany.** 3 hours each term.

How plants get their food, grow, differentiate, and reproduce. Three two-hour conference periods.

**Bot 203. (S) Field Botany.** 3 hours spring.

Introductory taxonomy and ecology of native flowering plants. One lecture; 1 recitation; 2 two-hour laboratory periods.

**Business Administration****BA 111, 112. (S) Introduction to Business and Industry.** 3 hours each term, fall and winter.

Survey of business organization, operation, and management intended to orient the student in business and industry and to help him determine a field of major concentration.

**BA 113. (S) Survey of Modern Industry.** 3 hours, spring.

Representative industries within United States covering development, structure, competitive conditions, basic processes, and technology. Orientation to help the student choose minor in technology.

**BA 111, 112, 113. (U) Constructive Accounting.** 3 hours each term.

Technique of account construction; preparation of financial statements. Application of accounting principles to practical business problems. Required of majors; prerequisite to advanced work in business.

**BA 221. (U) Elements of Organization and Production.** 4 hours any term.

Principles of management as applied to commercial and industrial concerns.

**BA 222. (U) Elements of Finance.** 4 hours any term.

The financial problems of corporations. Organization of corporations; how they obtain long-term funds; management of working capital; distribution of securities. Required of all major. Prerequisite: BA 111, 112, 113.

**BA 223. (U) Elements of Marketing.** 4 hours, any term.

Methods, policies, and problems. Private and cooperative channels, auctions, exchanges, middlemen; demand creation, assembly, standardization, packaging, financing, risk taking, distribution. Required of business administration majors.

**Terminal Business****Mer 238. (C) Salesmanship.** 3 hours, winter.

Salesmanship as a factor in distribution and service; analysis of the customer and his wants; methods of obtaining and holding customers; wholesale and retail sales processes, services, and principles of selling. This is a no-grade course. Terminal credit.

**Mer 209. (C) Merchandise-Apprenticeship.** 3 to 6 hours.

Actual selling experience, under appropriate supervision with directed corollary readings. Conducted through the cooperation of local merchants. Terminal credit.

**SS 256. (C) Business Law.** 3 hours, spring.

Application of fundamental legal principles to typical business situations illustrated by selected cases; formation, interpretation, discharge of contracts; law of agency, negotiable instruments, consideration, delivery, rights, liabilities of parties,



real property mortgages; landlord, tenant, mechanics' lien law; personal property, sales, bailments, chattel mortgages. Terminal credit.

## Chemistry

- Ch 104, 105, 106. (S) **General Chemistry.** 4 hours each term.  
Required for nursing-education and medical-technician students. 1 lecture; 2 recitations; 1 three-hour laboratory period.
- Ch 201, 202, 203. (S) **General Chemistry.** 3 hours each term.  
Course content particularly adapted for students in engineering. One lecture; 1 recitation; 1 three-hour laboratory period.
- Ch 204, 205. (S) **General Chemistry.** 5 hours each term.  
The basic principles of general chemistry for students majoring in chemistry, chemical engineering, or premedics, and for others requiring extensive knowledge of the subject. 2 lectures; 1 recitation; 2 three-hour laboratory periods. Students registered for 4 credits take but one laboratory period.
- Ch 206. (S) **Qualitative Analysis.** 5 hours spring.  
Chemistry of selected metallic elements and semi-micro qualitative analysis. A sequence with Ch 204 and 205, or with Ch 101, 102, 103. 2 lectures; 1 recitation; 2 three-hour laboratory periods.
- Ch 226, 227. (S) **Organic Chemistry and Qualitative Analysis.** 5 hours each term. An intensive study of the carbon compounds of the aliphatic and aromatic series.
- Ch 232, 233. (S) **Quantitative Analysis.** 5 hours, fall and winter.  
Fundamental principles and laboratory practice. Prerequisite: Ch 206. 2 lectures; 3 three-hour laboratory periods.
- Ch 234. (S) **Quantitative Analysis.** 5 hours, spring.  
Principles of gravimetric analysis, volumetric analysis, and H-ion concentration. Designed for pharmacy and premedical students and medical technicians. Prerequisite: Ch 103. For 5 hours credit: 2 lectures; 3 three-hour laboratory periods. For 6 hours credit: 2 lectures; 1 recitation; 3 three-hour laboratory periods.
- Ch 241. (S) **Chemical Theory.** 4 hours, spring.  
Theory and calculations in inorganic chemistry as a foundation for industrial chemistry. Prerequisite: Ch 206. 3 lectures; 1 two-hour computation period.

## Clothing, Textiles, and Related Arts

(See HOME ECONOMICS)

## Drama

(See SPEECH)

## Economics

- Ec 201, 202, 203. (U) **Principles of Economics.** 3 hours each term.  
Principles that underlie production, exchange, and distribution, etc. Prerequisite: sophomore standing.

- Ec 212. (S) **Outlines of Economics.** 3 hours.  
A rapid survey of the principles of economics and economic institutions. Restricted to science and upper-division professional-school students.
- Ec 215. (S) **Economic Development of the United States.** 3 hours.  
Origin and development of economic institutions including industry, agriculture, commerce, transportation, labor, and finance. Analyzes the economic progress of the United States.

## Education

- \*Ed 101. (S) **Methods of Study.** 2 hours.  
Specific methods of study as applied to various subject-matter fields; the general principles of note-taking; study schedule; fixing study habits; reading technique; evaluation of the various broad fields of human learning.
- Ed 312. (C) **Educational Psychology.** 3 hours.  
Latest contributions to educational psychology from experimental education and psychology, with special attention to the psychology of learning. Emphasis is placed on the results of scientific research and experimentation. Prerequisite: Psy 201, 202.
- Ed 344, 345, 346. (C) **Physical Education in the Elementary Grades.**  
1 hour each term.  
Theory and practice in rhythm; singing games, group and folk dancing. Second quarter emphasis is on stunts, games, self-testing activities, tumbling, and materials. Third quarter is devoted to planning and evaluating program with reference to basic principles of physical education and state testing program.
- Ed 351. (C) **Health Education.** 2 hours.  
Teaching health education with emphasis on the health knowledge, health attitudes, and health habits of school children, and the development of a health-service program. Special study of the state health education program. Prerequisite: Sc 101, 102, 103; H 150; or equivalent.
- Ed 354. (C) **Introduction to Education.** 3 hours.  
Introduction to the field of education, including an historical survey of the American public-school system; the importance of public education to the life of the republic; the relation of the school to other social agencies; the relationship of education to other professions; the opportunities for service in the principal fields of educational work; current issues in American education; and the desirability of having a working philosophy of education.
- Ed 358. (C) **Primary Education.** 4 hours.  
Principles and procedures of curriculum for primary grades; the young child studied in relation to home, primary school, and other agencies in the community. Designed to acquaint students with modern teaching procedures and materials; and to provide opportunity for application of sound psychological principles to the guidance of children's learning. Class discussion, observations in the training schools, and organization of teaching materials. Prerequisite: Ed 354, Psy 201.
- Ed 359. (C) **Intermediate and Upper-Grade Education.** 4 hours.  
Principles and procedures of curriculum for intermediate and upper grades. Designed to acquaint the student with modern teaching procedures and materials and

\* This is a service course, not a professional course, and will not count toward fulfillment of requirements for certification or for a major in education.

to provide opportunity for application of sound psychological principles to the guidance of children's learning. Class discussion, observation in the training schools and organization of teaching materials. Prerequisite: Ed 354, Psy 201.

## Engineering

- GE 101, 102, 103. (S) **Engineering Problems.** 2 hours each term.  
Lectures and elementary problems dealing with the general fields of civil, electrical, industrial, and mechanical engineering to train the student in engineering habits of work. One lecture; 2 two-hour computation periods.
- GE 121, 122. (S) **Engineering Drawing.** 3 hours each term.  
Fundamentals of graphic composition with particular emphasis on reading and interpretation of line drawings, charts, and diagrams. Two-term course for students in business and technology. 1 lecture; 3 two-hour periods.
- GE 123. (S) **Descriptive Geometry.** 3 hours.  
Theory and problems on the projection of points, lines, surfaces, and solids; applications of graphical solution of engineering problems. Prerequisite: GE 121, 122. 1 lecture; 3 two-hour periods.

## Civil Engineering

- CE 201, 202, 203. (S) **Introduction to Civil Engineering.** 2 hours each term.  
Fundamentals of graphic analysis, descriptive geometry, structural and topographic drafting, including field curves, in relation to the practice of structural, hydraulic, highway, and sanitary engineering. 2 three-hour laboratory periods.
- CE 221. (S) **Plane Surveying.** 3 hours.  
Theory and use of engineers' transit, tape, and level; evaluation of effect of errors on observation; application of surveying methods to problems in construction and area surveys. Prerequisite: GE 111; Mth 101. 1 recitation; 2 three-hour periods field work.
- CE 222. (S) **Plane Surveying.** 3 hours.  
Surveying problems relating to construction and land surveying; special computation problems in map projections; control surveys; and earthwork; tests and adjustment of engineer's transit and level. Prerequisite: CE 221. 1 recitation; 2 three-hour field and computation periods.
- CE 223. (S) **Plane Surveying.** 3 hours.  
Control surveys; computation of state-wide coordinates; topographic mapping; theory and use of stadia and plane table; field astronomy. Prerequisite: CE 222. 1 recitation; 1 six-hour field period.
- CE 226. (S) **Plane Surveying.** 3 hours.  
Theory and use of engineer's transit, tape, and level; application of surveying methods to problems in construction and area survey. Prerequisite: Mth 101. 1 recitation; 2 three-hour periods field work.

## Electrical Engineering

- EE 201, 202, 203. (S) **Introduction to Electrical Engineering.** 4 hours each term.  
Fundamentals of magnetic and electric fields and associated circuits, and electric circuit theory. Prerequisite: Mth 103, Ph 103, GE 103, or instructor's approval. 2 lectures; 2 two-hour recitations; 1 three-hour laboratory period.

## Industrial Engineering

- \*IE 111. (S) **Pattern Making.** 3 hours.  
Fundamentals of pattern making; relation of pattern making to drafting, design, foundry and machine-shop operation. 1 lecture; 6 hours of laboratory.
- †IE 240. (S) **Foundry Practices.** 2 hours.  
Introductory course covering constitution, properties, and design limitations of castings in iron and steel; foundry methods. 1 lecture; 1 four-hour laboratory period.
- IE 250. (S) **Forging and Welding.** 2 hours.  
Forging, forming, and heat-treating of steel, followed by gas and electric-arc welding, flame cutting, brazing, and resistance-welding operations. Attention is given throughout the course to practical applications of these processes in engineering construction and industrial fabrication. 1 lecture; 1 four-hour laboratory period.
- IE 260, 261. (S) **Machine Tool Practices.** 2 hours each term.  
Basic and advanced operations of machine tools on prescribed projects illustrative of industrial operations. Correlation of engineering and manufacturing problems and processes. 1 lecture; 1 four-hour laboratory period.
- IE 290. (S) **Introduction to Scientific Management.** 3 hours.  
History, development, and scope of scientific management. Laws of scientific management as applied to manufacturing.

## Mechanical Engineering

- ME 212. (S) **Mechanics (Static).** 3 hours.  
Forces and force systems with reference to the equilibrium of rigid bodies; numerous problems. Prerequisite: differential calculus. 2 recitations; 1 two-hour period.
- ME 213. (S) **Mechanics (Dynamics).** 3 hours.  
Continuation of ME 212. Principles and problems of kinetics; numerous problems. Prerequisite: ME 212. 2 recitations; 1 two-hour period.
- ME 216. (S) **Materials of Engineering.** 3 hours.  
Production, mechanical properties, and their control as applied to materials of machine and building construction. Corrosion resistance and other service requirements. Service course for nonmajors.
- ME 241. (S) **Introduction to Aeronautics.** 2 hours.  
Brief descriptive survey of principles of flight, engine and propeller operations; navigation and meteorology; governmental aeronautical aids and regulations. Prerequisite: consent of instructor.

## Terminal Engineering

- GE 104, 105, 106. (S) **Engineering Fundamentals.** 3 hours each term.  
Basic concepts and principles of physical science; elementary technical problems; algebraic composition; training in use of the slide rule. 1 lecture; 2 three-hour computation periods. Terminal credit.
- GE 201, 202, 203. (S) **General Engineering.** 4 hours each term.  
Courses designed for technical terminal students and nonprofessional degree stu-

\* In addition to the regularly scheduled meetings in this course, the student attends three general lectures to be arranged during the term.

dents. Application of the basic principles of science to general problems of engineering. 1 lecture; 1 recitation; 2 three-hour computation periods. Terminal credit.

**GE 211. (S) Structural Drafting.** 3 hours.

Timber, steel, and concrete details; conventions and marking systems; connections and truss details; plotting of earthwork cross sections and profiles. 3 three-hour laboratory periods. Terminal credit.

**GE 212. (S) Elementary Machine Drafting.** 3 hours.

Simple mechanisms and advanced working drawings; shop practices and requirements; reproduction methods. 3 three-hour laboratory periods. Terminal credit.

## English

### Literature

**\*Eng 101, 102, 103. (U) Survey of English Literature.** 3 hours each term.

From *Beowulf* to the present. Fall: *Beowulf* to Milton; winter: Milton to Byron; spring: Byron to the present.

**\*Eng 104, 105, 106. (U) Appreciation of Literature.** 3 hours each term.

The aim is to stimulate enjoyment and understanding of literature through study of outstanding works in prose and poetry, selected from all periods, including the twentieth century; includes works in English and translations from other literatures.

**Eng 107, 108, 109. (C) World Literature.** 3 hours each term.

A sequence to acquaint the student with outstanding works of ancient, medieval, and modern literature that have had a permanent and wide appeal outside their own country. Masterpieces from the Oriental, Greek, Roman, Italian, French, Spanish, German, Scandinavian, and Russian literatures are studied, with the major emphasis on the British and American.

**Eng 201, 202, 203. (U) Shakespeare.** 3 hours each term.

Study of the important plays—comedies, histories, and tragedies. Required for majors.

**Eng 261, 262, 263. (U) Survey of American Literature.** 3 hours each term.

American literature from its beginning to the present day. Two consecutive terms required to satisfy the high-school teaching-field requirement in English.

### Terminal English

**Wr 114, 115, 116. (E) Vocabulary Building.** 2 hours each term.

Designed to expand the student's vocabulary and otherwise improve the use of English. A study of words: new words, the right word; diction; pronunciation; an effective program for acquiring and using the forms of writing. This is a no-grade course. Terminal credit.

### Written English

**Wr K. (U) Corrective English.** 1 hour any term.

No-grade course. One-term course in the mechanics of English, required of freshmen who receive low ratings in the entrance placement examination. For such students Wr K is a prerequisite for any work in written English.

\* A student may register for only one of the two sequences: Eng 101, 102, 103 or Eng 1 4, 105, 106.

**Wr 111, 112, 113. (U) English Composition.** 3 hours each term.

The fundamentals of English composition; frequent written themes. Special attention to correctness in fundamentals and to the organization of papers.

**Wr 211, 212, 213. (U) Advanced Writing.** 3 hours each term.

Practice in a variety of literary forms, including fiction. Prerequisite: Wr 111, 112 (with A or B grade), and Wr 113 (with B), or consent of instructor.

**Wr 214. (U) Business English.** 3 hours.

Study of modern practices in business correspondence, primarily for students in the business fields. Analysis and writing of the principal types of correspondence. Prerequisite: Wr 111, 112, 113.

**Eng 211. (S) Vocabulary Building.** 3 hours, spring.

Methods of building individual vocabulary; analysis of words; meaning in context. Designed to increase reading comprehension and effective use of language.

### Library

**Lib 117. (U) Use of the Library.** 1 hour.

Training in the use of the card catalog, periodical indices, and reference books; experience in the preparation of bibliographies. As far as possible, problems are coordinated with the individual student's study program.

### Foods and Nutrition

(See HOME ECONOMICS)

### Foreign Languages

#### German

**GL 1, 2, 3. (U) First-Year German.** 4 hours each term.

Provides a thorough grammatical foundation and an elementary reading knowledge of German, as well as an understanding of the spoken language.

**GL 101, 102, 103. (U) Second-Year German.** 4 hours each term.

Review of grammar and composition. Reading of modern German authors. Conversation.

#### Spanish

**RL 11, 12, 13. (U) First-Year Spanish.** 4 hours each term.

An introduction to Spanish, stressing speaking and reading. Exercises in elementary composition.

### Forestry

**F 111. (S) General Forestry.** 3 hours.

Preliminary survey of the entire field of forestry including the development of forestry in the United States and the origin and distribution of our public domain. May be elected by students in other schools.

**FP 210. (S) Forest Products.** 3 hours.

Adaptation to commercial uses; chief wood-using industries; relative amounts of commercial species used annually; substitutes; by-products.

**F 213. (S) Introduction to Forestry.** 3 hours.

Administration and operation of various forest agencies in the United States. Not open to forestry students.

**Geography****Geog 105, 106, 107. (U) Introductory Geography.** 4 hours each term.

A general introduction to the field of geography, in sequence as follows: Geog 105, physical elements; Geog 106, earth resources; Geog 107, cultural elements. 3 lectures; 1 two-hour laboratory period.

**Geog 105, 106, 107. (S) Introductory Geography.** 3 hours each term.

World survey of geographic fundamentals emphasizing human adjustments to climatic conditions and physical environment; geographical regions in relation to man's productive occupations; geography of international trade.

**Geog 201, 202, 203. (U) Regional Economic Geography.** 3 hours each term.

A study of the major types of production and their geographic background.

**Geog 205. (S) Regional Geography of North America.** 3 hours.

Regional analysis of North America, including Canada and Alaska but not Mexico. Prerequisite: Geog. 101 or permission of instructor.

**Geog 211. (S) Regional Geography of Pacific Northwest.** 3 hours.

Analysis of human and economic geography of Pacific Northwest with special attention to Oregon. Includes field study. Prerequisite: Geog. 101 or consent of instructor.

**Geology****G 201, 202, 203. (S) Geology.** 3 hours each term.

Processes of nature by which earth's surface has been built up, deformed, and torn down; natural history and occurrence of common rocks and useful minerals; outline of history of earth and life.

**Health Education**

(See PHYSICAL EDUCATION)

**History****Hst 107, 102, 103. (U) History of Western Civilization.** 3 hours each term.

Origins and development of Western civilization from ancient times to the present.

**Hst 201, 202, 203. (U) History of the United States.** 3 hours each term.

From colonial times to the present day.

**Hst 204. (S) History of the Far East.** 3 hours.

Aim is to introduce students to the history, civilization, and political, economic, cultural, and social problems of China, Japan, India, and the Pacific Islands. Applies toward group requirement in social science.

**Hst 206. (S) Modern Russia.** 3 hours.

Aims to enrich student's knowledge of political, diplomatic, economic, and social development of Russia from the revolution of 1905 to the present. Prerequisite: Hst 201, 202, 203 or special consent of instructor.

**Hst 207, 208, 209. (U) English History.** 3 hours each term.

A general survey, covering political, economic, social, intellectual, and religious developments.

**Hst 209. (S) The World Since 1914.** 3 hours.

Origins, backgrounds, and courses of the first and second World Wars; problems of American war mobilization; war aims and postwar planning. With Hst 207, 208, satisfies group requirement in social science. Prerequisite: Hst 201, 202, 203 or special consent of instructor.

**Hst 377. (S) History of Oregon.** 3 hours.

Aims to present a fairly detailed survey of the political, economic, social, and cultural development of Oregon and the Pacific Northwest from the beginning to the present.

**Home Economics****Clothing, Textiles, and Related Arts****CT 211. (S) Clothing (Selection).** 3 hours.

Artistic and economic factors in the selection of adult clothing; wardrobe needs of the college girl. Prerequisite: AA 160. 2 lectures; 1 two-hour laboratory period.

**CT 231. (S) Home Furnishing.** 3 hours.

Elective for students other than home economics majors. Aims to develop appreciation of beauty and suitability in home furnishings; materials and processes involved. 3 two-hour laboratory periods.

**CT 250. (S) Textiles.** 3 hours.

Properties, uses, selection and care of textile fibers and fabrics. No prerequisite, but chemistry is desirable. 2 lectures; 1 two-hour laboratory period.

**Family Life and Home Administration****FL 223. (S) Family Relationships.** 2 hours.

Brief consideration of mate selection; husband-wife, parent-child, child-child relationships. Does not meet requirement for majors in home economics. Open to men and women.

**HAd 239. (S) Home Management.** 3 hours.

Problems in management of home; management of money, time, and energy in relation to family living. For students not in home-economics degree curricula.

**Foods and Nutrition****FN 225. (S) Nutrition.** 3 hours any term.

Nutritive value of foods from the standpoint of newer scientific investigations; selection of an optimal diet for health; present-day problems in nutrition; recent trends in American dietary habits.

**HEc 225. (U) Principles of Dietetics.** 2 hours.

The nutritive value of food; the selection of a proper diet for health, based on dietetic principles. Open to men and women. Required of physical education majors.

**Industrial Arts**

(See ENGINEERING)

## Journalism

- J 191. (E) **Journalism Practice.** 1 hour each term.  
6 hours maximum credit. Restricted to students working on school publications.
- J 211. (U) **Introduction to Journalism.** 3 hours.  
An introduction to the newspaper and other media of mass communication, including news, editorial, pictorial, business, and advertising aspects.

## Law Enforcement (Police Training)

- \*LE 011. (E) **Police and Society.** 2 hours.  
A study of the purpose, function, and brief history of the agencies dealing with the administration of justice. Survey of requirements for entering police service. Origin and evolution of law enforcement agencies. Discussion of crime, the criminal, traffic, and vice as social and police problems; function of the courts, prosecuting and defense attorneys, correctional and penal institutions, probation and parole, American and foreign police systems.
- \*LE 012. (E) **Organization and Administration of Law Enforcement Agencies.** 2 hours.  
Application of the principles of organization and administration to law enforcement agencies of federal, state, and municipal levels. Continuation of discussion of the principles of organization and administration as pertaining to service.
- \*LE 013. (E) **Elements of Law for Police Officers.** 2 hours.  
Overview of salient elements of law which have special application to police work, including criminal law, law of arrests, court procedures, automobile law, laws of search, seizure and evidence, and elements of crime.
- \*LE 021. (E) **Police Techniques I. Evidence,** 2 hours.  
Study and laboratory work in the collection and preservation of evidence, statements and confessions, observation and description, notes and sketches, surveillance and interrogation.
- \*LE 022. (E) **Police Techniques II. Identification,** 2 hours.  
Identification, including toxicology, photography, handwriting, *mouflage*, scientific lie detecting, and ballistics.
- \*LE 023. (E) **Police Techniques III. Traffic control and field work,** 2 hours.  
Problems of traffic control, traffic laws, radio communication, and field work in police training.

## Library

(See ENGLISH)

## Mathematics

- Mth 5 (S) **Elementary Mathematics.** 1 hour.  
A short course in numerical calculations, elements of algebra, and trigonometry, designed to aid students in elementary science courses. 3 recitations.
- Mth 10. (S) **Elementary Algebra.** 4 hours.  
For students entering with less than one year of elementary algebra. Open to others

\* Terminal Professional courses which may not be counted toward a college degree or transferred to another institution.

only on recommendation of the department. May not be taken for credit after completion of higher courses in college mathematics.

- Mth 20. (S) **Elementary Geometry.** 4 hours.  
For students entering with less than one year of high-school geometry.
- Mth 100. (S) **Intermediate Algebra.** 4 hours.  
Prerequisite: one year of high-school algebra.
- Mth 101, 102, 103. (S) **Elementary Analysis.** 4 hours each term.  
Trigonometry, graphs, algebra, elements of calculus, and analytic geometry. Prerequisite: Mth 100 or equivalent, and Mth 20 or equivalent.
- Mth 105. (U) **College Algebra.** 4 hours.  
Prerequisite: one and one-half years of high-school algebra or Mth 100.
- Mth 104s, 105s, 106s. (S) **Mathematics of Business and Industry.** 3 hours each term. Algebra and mathematics of finance. A maximum of 4 term hours credit will be given for Mth 10 and Mth 104, and for Mth 100 and Mth 105.
- Mth 108. (U) **Mathematics of Finance.** 4 hours.  
Simple and compound interest and discount, annuities, periodic-payment plans, bonds, depreciation, and other topics related to business. Prerequisite: Mth 101 (S) or Mth 105 (U).
- Mth 109. (S) **Elements of Statistics.** 4 hours.  
Elementary statistics in the application to problems in psychology, social science, business, and education.
- Mth 201, 202, 203. (S) **Differential and Integral Calculus.** 4 hours each term.  
First term: basic differentiation; introductory work in integration with applications to mechanics. Second term: some further applications of differentiation; methods of integration, application. Third term: series, Taylor's theorem; partial differentiation; multiple integrals with applications. Prerequisite: Elementary Analysis or equivalent.
- Mth 211. (C) **Foundations of Mathematics.** 3 hours.  
Treatment of historical aspects of mathematics, social uses and relationships, mathematical principles and relationships, grade placement of content materials, appraisal of texts, workbooks and tests, development of problem-solving ability, and proficiency in the fundamental skills of mathematical processes.
- Mth 230. (S) **Spherical Trigonometry and Rudiments of Navigation.** 2 hours.  
The solution of the basic spherical triangles with applications to problems in navigation. Prerequisite: Mth 101 or equivalent.

## Medical and Dental Assistantship

- MD 290. (C) **Office Apprenticeship.** 4 hours.  
Practical work experience under appropriate supervision, with directed corollary readings. Conducted through cooperation of local physicians and dentists. Terminal credit.

## Music

- Mus 111, 112, 113. (S) **Theory.** 2 hours each term.  
Music fundamentals, scales, key relationships, intervals, triads; harmonizations

of various triad and seventh chords in all positions, nonchord tones, free harmonization and simple modulation; keyboard work, chord recognition, sight-singing, and analysis correlated with written work. 5 periods.

**Mus 190. (U) Applied Music.** 1 hour any term.

Freshman year. Individual instruction in organ, piano, violin, cello, harp, voice, orchestral and band instruments. Prerequisite: consent of instructor.

**Mus 195. (U) Band.** 1 hour each term.

Six hours maximum credit.

**Mus 196. (U) Orchestra.** 1 hour each term.

Six hours maximum credit.

**Mus 197. (U) Choral Union.** 1 hour each term.

Six hours maximum credit.

**Mus 201, 202, 203. (U) Introduction to Music and its Literature.** (Appreciation of Music.) 3 hours each term.

A nontechnical study of the development of music, stressing the elements of musical understanding; study of representative compositions, with emphasis on their musical and historical significance.

**Mus 211, 212, 213. (U) Music Theory II.** 2 hours each term.

For description, see Mus 111, 112, 113. Prerequisite: Mus 111, 112, 113.

**Mus 281. (C) Music I. Introductory Course in Music.** 3 hours.

A musical background for the elementary-school teacher; singing children's song material; acquiring good vocal habits; reading music; experiencing simple problems in rhythm; listening to music; analyzing its forms; learning keys, scales, intervals, primary chords, and their application to the piano keyboard.

**Mus 282. (C) Music II. Music Reading and Ear Training.** 3 hours.

Acquiring more skill in reading song material; more advanced rhythmic patterns; major and minor modes; two-, three-, and four-part music; chording; ear training; dictation.

**Mus 283. (C) Music III. Music Education.** 3 hours.

The close relationship between music education and other areas in education; planning a musical environment; directing the experiences of children in music; studying principles and procedures in teaching music skills.

**Mus 290. (U) Applied Music.** 1 hour any term.

Sophomore year. Continuation of Mus 190, which is prerequisite.

## Nursing Education

**Nur 230. (U) Home Nursing.** 2 hours.

Home care of the sick; demonstration of ordinary nursing techniques under home conditions; improvising equipment. Designed primarily for students who are not preparing for professional nursing. An elective for both men and women. 1 lecture; 3 hours laboratory.

## Nutrition

(See HOME ECONOMICS:)

## Philosophy

**Phl 201. (U) Elementary Logic.** 3 hours.

An introduction to the study of argument, reasoning, proof. How to recognize, analyze, criticize, and construct the main types.

**Phl 202. (U) Problems of Philosophy.** 3 hours.

An introduction to the study of some of the persistent problems of philosophy.

**Phl 203. (U) Elementary Ethics.** 3 hours.

An introduction to problems which mark the philosophical study of morality, e.g., right and wrong, free will and determinism, morals and society, etc.

## Physical Education

### Service Courses

**HE 150. (U) Health Education (Men).** 1 hour any term.

Study of personal health problems which confront the college student; the basic scientific principles of healthful living. Required of all freshman men. 1 period.

**PE 180. (U) Physical Education (Women).** 1 hour each term, six terms.

A variety of activities taught for physiological and recreational values. Special sections for restricted and corrective work. A total of five terms required during the freshman and sophomore years for all women. 3 activity periods.

**PE 190. (U) Physical Education (Men).** 1 hour each term, six terms.

A variety of activities taught for physiological and recreational values. Special sections for restricted and corrective work. A total of five terms required of all men during the freshman and sophomore years. 3 activity periods.

**HE 250. (U) Personal Health.** 2 or 3 hours.

Exercise, nutrition, infection and resistance, special senses, mouth hygiene, sex hygiene, rest and sleep, fresh air and sunshine. Satisfies the health-education requirement.

**HE 251. (U) Community Health.** 3 hours.

Water supply, food and milk sanitation, ventilation, sewage disposal, lighting, housing, health agencies, health laws, insect and rodent control.

**HE 252. (U) First Aid.** 3 hours.

American Red Cross first aid; lectures, demonstrations, and practice leading to standard and advanced first-aid certificates.

### Professional Courses

**PE 121. (U) Introduction to Physical Education.** 2 hours fall.

Basic mechanics of movement, form, and skills in activities. Basic principles of physiology of exercise.

**PE 124, 125, 126. (U) Physical-Education Activities (Women).**

1 or 2 hours each term.

For majors. Instruction and practice. Fall: fundamentals I, swimming I; winter: fundamentals II, tumbling; spring: tennis, elementary dance.

**PE 127. (U) Fundamentals of Body Movement and Conditioning (Men).**

2 hours.

For majors.

- PE 128. (U) **Elementary Tumbling and Apparatus (Men)**. 2 hours.  
For majors.
- PE 129. (U) **Track and Field (Men)**. 2 hours.  
For majors. Basic principles of conditioning; skills of track and field events.
- PE 224, 225, 226. (U) **Physical-Education Activities (Women)**.  
1 or 2 hours each term.  
For majors. Instruction and practice. Fall: soccer and speedball, hockey; winter: folk and square dancing; spring: swimming II, track and field.
- PE 227. (U) **Elementary Aquatics (Men)**. 2 hours.  
For majors. Elementary swimming, diving.
- PE 228. (U) **Folk and Square Dancing (Men)**. 2 hours.  
For majors. Rhythmic fundamentals and dances.
- PE 229. (U) **Wrestling (Men)**. 2 hours.  
For majors.

## Physics

- Ph 101, 102, 103. (S) **Engineering Physics**. 3 hours each term.  
Studies in general physics adapted to students in engineering. 1 lecture; 2 recitations; 2 one-hour laboratory periods.
- Ph 161. (S) **Rudiments of Photography**. 2 hours each term.  
For students not having the science prerequisites for Ph 361. Does not admit to Ph 362. 1 lecture; 1 two-hour laboratory period.
- Ph 201, 202, 203. (S) **General Physics**. 4 hours each term.  
Mechanics, sound, heat, light, electricity, and magnetism. 2 lectures; 2 recitations; 1 two-hour laboratory period.
- Ph 204, 205, 206. (S) **Astronomy**. 3 hours each term.  
Descriptive treatment. Coordinate system; astronomical instruments; the solar system; star types and groupings. 2 lectures; 1 two-hour laboratory period.
- Ph 334. (S) **Fundamentals of Radio**. 3 hours.  
Underlying principles; vacuum tubes; circuits, antennas and wave propagation; construction and use of transmitting and receiving equipment. Prerequisite: one year of college physics. 1 lecture; 2 two-hour laboratory periods.
- Ph 361. (S) **Photography**. 3 hours any term.  
The hand camera, developing, printing, toning, enlarging. Prerequisite: college chemistry or physics or previous photographic experience, with consent of instructor. 1 lecture; 2 two-hour laboratory periods.
- Ph 362. (S) **Photography**. 3 hours any term.  
Commercial photography; view cameras, chemicals, and solutions; copying, photography of small objects, lighting, photosketching, lantern slides. Prerequisite: Ph 361. 1 lecture; 2 two-hour laboratory periods.
- Ph 363. (S) **Photography**. 3 hours spring.  
Continuation of Ph 362. Composition; exteriors, interiors, flashlights, portraits; telephoto lenses, infrared. 1 lecture; 2 two-hour laboratory periods.

## Police Training

(See LAW ENFORCEMENT)

## Political Science

- PS 201, 202, 203. (U) **American Governments**. 3 hours each term.  
Fall and winter: national government. Spring: state and local governments.
- PS 204. (U) **European Governments**. 3 hours.  
A survey of the constitutions and governmental operations of selected democratic and nondemocratic governments in Europe, including the governments of Britain, France, and the Soviet Union.
- PS 205. (U) **International Relations**. 3 hours.  
Analysis of the nature of relations among states, with particular reference to contemporary international issues; a study of motivating factors, including nationalism, imperialism, economic rivalries, quest for security, etc.; study of the problem of national sovereignty and its relation to international cooperation.
- PS 231, 232, 233. (S) **Current Affairs**. 2 hours each term.  
Designed to acquaint student with current political, economic, and sociological problems and developments that arise on both domestic and international levels, and to encourage objective analysis and discussion of these events in order to mold responsible citizens. Open to freshmen and sophomores only.

## Psychology

- Psy 201, 202. (U) **General Psychology**. 3 hours each term.  
Introductory study of behavior and conscious processes. Survey of experimental studies with reference to motivation, learning, thinking, perceiving, and individual differences.
- Psy 204. (U) **Psychology of Adjustment**. 3 hours.  
The nature and origins of differences in personality; means of making desired changes. Prerequisite: Psy 201, 202.
- Psy 205. (U) **Applied Psychology**. 3 hours.  
A survey of the ways in which psychology is applied in advertising, salesmanship, market research, measurement of opinion, occupational placement, development of personal efficiency. Prerequisite: Psy 201, 202.
- Psy 208, 209, 210. (U) **General Psychology Laboratory**. 1 hour each term.  
Introduction to experimental methods. Laboratory work co-ordinated with Psy 201, 202, Psy 204, Psy 205. 1 laboratory period each week.
- Psy 261. (C) **Child Growth and Development**. 3 hours.  
Consideration of the child as an individual and as a member of social groups. Included is a study of the kinds of home and school environment essential to the best intellectual, physical, and emotional development of the child.

## Public Speaking

(See SPEECH)

## Religion

R 111, 112, 113. (U) **Introduction to Religious Thought.** 3 hours each term.

Introduction to religious problems and to methods of studying these problems. Religion in different cultures. Consideration of some of the common questions men have asked about God, the soul, immortality, good and evil, the religious fellowship and society, the nature and destiny of man. Criteria for evaluating religion.

## Rhetoric

(See ENGLISH)

## Science

(See also BOTANY, CHEMISTRY, PHYSICS, ZOOLOGY)

GS 101, 102, 103. (S) **Biological Science Survey.** 4 hours each term.

The fundamental principles of biology as they apply to both plants and animals. For general students and those majoring in fields other than biology. 3 lectures; 1 two-hour laboratory period.

GS 104, 105, 106. (S) **Physical Science Survey.** 4 hours each term.

Fundamental principles of physics, chemistry, astronomy, and geology; development and application of the scientific method. For students majoring in fields other than the physical sciences who wish a broad view of the principles of several physical sciences. 3 lectures; 1 two-hour laboratory-recitation period.

## Secretarial Science

SS 111, 112, 113. (S) **Stenography.** 3 hours each term.

Theory of shorthand; practical applications in sentence dictation. SS 121, 122, 123 must be taken concurrently unless the student has had the equivalent. Students with one year of shorthand are not permitted to take course SS 111 for credit. 4 recitations.

SS 121, 122, 123. (S) **Typing.** 2 hours each term.

Theory and practice of touch typing; rhythmical drills, dictation exercises; writing paragraphs; punctuation and mechanical arrangement of business correspondence, legal forms, tabulating, manifold, speed practice. Students with at least one year of typing are not permitted to take SS 121 for credit. 5 periods laboratory work.

SS 131. (S) **Business Forms and Reports.** 2 hours, spring.

Planning and typing business papers, manuscripts, statistical tables, and reports. Speed typing is emphasized.

SS 211, 212, 213. (S) **Applied Stenography.** 3 hours each term.

Advanced principles and phrases; dictation and transcripts covering vocabularies of representative businesses; legal forms; newspapers and magazine articles. Prerequisite: SS 113, 123 or equivalent. 3 recitations; 3 one-hour laboratory periods.

SS 241, 242, 243. (C) **Office Practice.** 3 hours each term.

Actual office experience on the job in dictation, transcription, typing, and filing, making routine and statistical reports, use of office equipment and machines, and practice in meeting the public. Terminal credit.

## Social Science

(See also ANTHROPOLOGY, ECONOMICS, EDUCATION, HISTORY, POLITICAL SCIENCE, PSYCHOLOGY, and SOCIOLOGY)

SSc 101, 102, 103. (C) **Background of Social Science.** 3 hours each term.

A factual and interpretive study of man, his culture, and his institutions. A brief survey of contemporary political, economic, and social situations and problems, with their relationship to historical periods. A year sequence furnishing the background for all social sciences and laying a basis for understanding contemporary socio-economic problems. Challenges the analytical and critical faculties of students in preparation of more detailed studies, such as courses in economics, political science, and sociology.

SSc 111. (C) **Orientation.** 1 hour.

A course in effective adjustments to college and social needs. Effective means and methods of study; use of the library; time budgeting; importance and spacing of reviews; the amount and type of recreation suitable; social adjustments for happy and effective living; means and methods of modifying personality deficiencies.

## Sociology

Soc 204, 205, 206. (U) **General Sociology.** 3 hours each term.

The basic findings of sociology concerning the individual, culture, group life, social institutions, and factors of social change. Prerequisites: sophomore standing or consent of instructor.

Soc 212. (S) **General Sociology.** 3 hours.

An abridgement of Soc 201, 202. Not open to students who have taken Soc 201, 202, 203.

## Speech

Sp 111, 112, 113. (U) **Fundamentals of Speech.** 3 hours each term.

Projects in extempore speaking. Primary emphasis on content and organization, with attention also to the student's adjustment to the speaking situation, effective delivery, audience motivation, and language of the speech.

Sp 114. (U) **Voice and Diction.** 3 hours, fall and winter.

Study and practice of the principles of tone production. Phonetic analysis of English sounds as a basis for correct and effortless diction. Intended for students who have slight deviations in voice and diction.

Sp 211. (U) **Interpretation.** 2 hours, winter.

The application of the principles of oral reading to literature.

Sp 221. (U) **Public Discussion.** 2 hours, winter.

Preparation of speeches for delivery before public audiences.

Sp 232. (S) **Group Discussion.** 3 hours, spring.

Techniques and practice in preparing, leading, and participating in the many types of discussion used by extension workers, club leaders, teachers, and all business, technical, and professional people, such as conferences, specialized recitations, panels, lecture forums, and symposiums. Prerequisite: Sp 111.

Sp 251. (U) **Elements of Acting.** 2 hours, fall or spring.

Elementary principles of acting technique.



- Sp 261, 262, 263. (U) **Fundamentals of Stagecraft.** 3 hours each term.  
Planning and construction of stage settings and properties; principles of lighting; mechanics of the physical stage. Practical experience in connection with the production of plays.
- Sp 264, 265, 266. (U) **Appreciation of Drama.** 2 hours each term.  
Study of design, acting, playwriting, criticism. Appreciation of drama, motion picture, and radio plays as art forms.

### **Writing**

(See ENGLISH)

### **Zoology**

- Z 201, 202, 203. (S) **General Zoology.** 3 hours each term.  
For premedical, pre dental, pre nursing, pharmacy, physical education, psychology, fish and game management students, and others. Two lectures; 1 recitation; 1 two-hour laboratory period.
- Z 324, 325. (S) **Comparative Vertebrate Anatomy.** 4 hours each term.  
Gross dissection and comparison of organ systems in representative vertebrate forms. Prerequisite: Bi 201, 202, 203. 2 lectures; 2 three-hour laboratory periods.
- Z 326. (S) **Comparative Vertebrate Embryology.** 4 hours.  
Comparative study of the development of several representative vertebrate forms. Prerequisite: Bi 202, 203, 203. 2 lectures; 2 three-hour laboratory periods.
- Z 331, 332. (S) **Physiology.** 3 hours each term.  
Especially for students majoring in home economics, pharmacy, and zoology or minoring in physical education. Prerequisite: Bi 203, or consent of instructor. 2 lectures; 1 two-hour laboratory period.

## ***Night Program***

*(All students are expected to be familiar with the regulations and requirements given in the section of this Bulletin entitled "General Information." They apply to both day program and night program students.)*

The night program of the Portland State Extension Center is a well-balanced schedule of related undergraduate and graduate courses in almost all of the major fields of study. Every effort is made to serve the widest general vocational and avocational interests, and the greatest needs of students in meeting lower-division, upper-division, and graduate requirements toward academic degrees.

A survey of the more than 250 courses offered during the 1951-52 night program indicates the extent to which the Center serves these purposes. Of the total of 625 term hours available in course offerings during the year, 199 were in lower-division work, 112 in upper-division work, 197 in upper-division work which can also be taken for graduate credit, and 117 in graduate courses. For example, in lower-division courses there were available 15 hours in art, 22 hours in English, 15 hours in geology, 17 hours in history, 14 hours in sociology, and 51 hours in education.

In the upper-division offerings there were 91 hours in business administration, 34 hours of which could be taken for graduate credit; 19 hours in engineering; 9 hours in art; 192 hours in education; 18 hours in English; 15 hours in political science; 18 hours in psychology; 13 hours in economics; and 12 hours in sociology.

At the graduate level there were offered 126 hours in education; 24 hours in social work; 9 hours in engineering, and at least three hours each in nursing education, political science, psychology, and health and physical education.

These are but a partial listing of the night program offerings in both the arts and sciences and the professional schools.

### **Academic Regulations**

**ADMISSION REQUIREMENTS.** As the purpose of the night program of the Center is to serve all who wish to take courses and are able to profit by them, there are no formal requirements for admission except for those working toward degrees. A considerable number of persons register as

audit students, taking courses for their cultural and practical value, but not for credit. In any course, however, the instructor may require evidence that prerequisite work has been done. All persons working toward degrees are required to file with the Registrar of the General Extension Division the credentials required by the institution from which they expect to receive a degree.

**REGISTRATION.** Night program students may register during the day in accordance with the schedule designated on the academic calendar, or at night during the first week of each term from 6:30 to 9:00 p.m., at the Center.

**CREDIT HOUR LOAD.** In the night program a student may not take more than 6 term hours if employed full-time. High school graduates, veterans, and others who are able to give adequate time to study and who are unable for financial or other reasons to enroll in regular work one of the campuses, may petition to register for more than 6 term hours. In no case may graduate students who are employed full-time register for more than 6 term hours of graduate credit.

Permission of the instructor is required for admission to classes for credit after the first meeting of the class. Admission for credit is not allowed after the third meeting.

If a student takes two or more courses which duplicate each other, even in part, he will receive credit for only one of them.

**CLASS SCHEDULE.** Classes meet once a week, unless otherwise noted in the course descriptions. Two-hour classes meet from 7:15 to 9:00 p.m.; three-hour classes from 6:45 to 9:25 p.m. Some deviations are necessary in laboratory courses.

**CAMPUS RESIDENCE REQUIREMENT.** The minimum campus residence requirement for a baccalaureate degree is 12 term hours. In fields and professional schools where course offerings are available, a student may complete all except 12 term hours of the total program through the Portland State Extension Center.

### **Graduate Degree Program**

Graduate work in certain fields, leading to degrees from the University of Oregon, Oregon State College, or any of the three Oregon Colleges of Education, may be taken in the night program of the Portland State Extension Center.

Under favorable circumstances, all of the work for the Master of Arts

in General Studies from Oregon State College may be completed in Portland. If adequate course offerings are available, 33 of the 45 term hours of work required for the degree of Master of Arts in General Studies from the University of Oregon may be taken here.

Through the Portland State Extension Center and other departments of the General Extension Division, a graduate student may complete all work required for the Master of Education degree except 12 hours which must be completed in residence either at the University or State College; or for the Master of Science in Education degree except 12 hours which must be completed in residence at one of the three Colleges of Education.

Fifteen term hours of work toward the Master of Arts (departmental), Master of Science, or the Master of Science in General Studies degree offered by the University of Oregon, may be completed at the Portland State Extension Center.

The Master of Education (M.Ed.) is regarded as a professional teaching degree and not primarily as a research degree. No thesis or field study is required; however, a thesis or field study is expected of majors in school administration.

**GRADE REQUIREMENTS.** An accumulation of 9 term hours of grades below B in his major field disqualifies a student for further graduate work toward the master's degree at the University of Oregon. To be eligible for a master's degree at the University, a student must present 45 term hours of graduate work with grades of A or B. At Oregon State College a grade-point average of 3.00 (a B average) is required for every graduate degree. Grades below C are not accepted for graduate credit at the State College.

**FOREIGN LANGUAGE.** A reading knowledge of one foreign language, preferably French or German, must be shown by examination or by adequate undergraduate courses for the Master of Arts (departmental) degree. There is no foreign language requirement for the Master of Science degree.

**THESIS AND FINAL EXAMINATION.** Theses must be filed in the graduate office two weeks before the final examination, and must be submitted in the form required by the graduate office on the campus where the degree is to be taken. Examinations are given on the campus of the institution granting the degree.

*Graduate students should see an adviser of the Portland State Extension Center before registering for any graduate program.*

**ADMISSION.** A graduate of any accredited college or university is admitted to the Graduate School by the Registrar of the institution from which he wishes to receive a master's degree upon filing an application for admission and submitting an official transcript of his undergraduate credits. Such admission, however, does not entitle a student to become a candidate for a degree.

Candidacy is conditioned by a qualifying examination which each student working toward a master's degree is required to take. Arrangements for the examination should be made through the graduate adviser before completion of one-third of the work for the degree. University of Oregon honor graduates who have taken the bachelor's degree in the field of the graduate major, and Oregon State College graduates who have maintained an undergraduate grade-point average of 3.25, may be exempt from taking the qualifying examination.

Transferred credit, of which not more than 15 graduate term hours can be transferred from another institution, is provisional until the qualifying examination is taken.

For a graduate major, the equivalent of an undergraduate major in the same subject is required. Preparation for a graduate minor must be at least a one-year sequence of upper-division work in addition to foundation courses in the subject.

A seven-year maximum period is given for completing all work for a master's degree, including work for which credit is transferred.

**REGISTRATION.** Graduate students are required to fill in a blue registration card which must be signed by the instructors and adviser and submitted with the class cards at the time the registration fee is paid.

### **Teacher Programs**

**CERTIFICATION PROGRAMS.** The Portland State Extension Center is authorized to offer all of the work required for both elementary and secondary certificates in Oregon, with the exception of practice teaching. However, the Portland Summer Session offers Practice Teaching at the secondary level and makes some provision to assist experienced elementary teachers in meeting the practice teaching requirement.

**ELEMENTARY TEACHER EDUCATION DEGREE PROGRAM.** The Portland State Extension Center has a cooperative arrangement with the three state colleges of education in Monmouth, Ashland, and La Grande to provide upper-division courses in elementary education under a five-year emergency program terminating on July 1, 1956. These accredited courses

given through the General Extension Division offer an equivalent junior-year curriculum for elementary teacher education. This may be followed, upon specific recommendation of the Dean of the General Extension Division, by a fourth year of concentrated professional preparation at any one of the colleges of education. While it is desirable for the student to spend the entire fourth year at one of the state colleges of education, the student may spend two quarters at a college of education and then return to Portland for the third term of the senior year, which includes the remainder of practice teaching and six hours of related courses work directed by the college of education. Upon completion of all requirements, the B.S. degree in elementary education is awarded by the college of education attended.

This cooperative elementary teacher education degree program provides supplementary opportunity during the emergency for students to prepare for this field through the Portland State Extension Center. The State Board of Higher Education offers a full four-year professional preparation for elementary teachers in each of the colleges of education, and high school seniors who plan to enter this training are normally advised to enroll as freshman at one of these colleges.

**MASTER OF SCIENCE IN EDUCATION PROGRAM.** The three Oregon Colleges of Education have been authorized by the State Board of Higher Education to offer in summer sessions a program of graduate courses for elementary teachers, principals, and supervisors leading to the degree of Master Science in Education. The work toward this degree is also available through the Portland Summer Session. The program will be continued in succeeding summer sessions with some of the course offerings available during the regular academic year on the college campuses and through the night programs including that of the Portland State Extension Center.

### **Cooperative Programs**

Professional education for social work is offered at the graduate level through a cooperative arrangement with the University of Oregon. An agreement with the University of Washington Graduate School of Social Work permits the transfer of credit for some courses. The primary emphasis is on providing an opportunity for some professional education to employees of Oregon social agencies who otherwise could not obtain it, and on offering to workers in related professions a basic orientation to social work. Consultations for individuals interested in the profession

of social work and for agencies with staff development and in-service training problems are available.

A program leading to the Master of Arts in General Studies degree, designed specifically to meet the requirements of public health nurses, is being offered in cooperation with the Department of Nursing Education, University of Oregon Medical School.

A number of courses are offered by the Portland State Extension Center in cooperation with the Museum Art School of the Portland Art Association, the Portland Public Schools, and the Portland Civic Theatre.

The art courses are scheduled at the Museum Art School, and the enrollment is limited by the facilities of the studios. Registration for the fall term opens August 18, at the Museum Art School.

A number of courses are offered as part of the in-service training program of the Portland Public School System. These classes meet at the schools designated in the course descriptions and are open to any qualified student. The courses carry college or university credit, and the fees are the same as for the regular night courses.

The director of the Portland Civic Theatre and instructors in the Civic Theatre School teach classes in acting for beginners and advanced students throughout the regular school year. Under this cooperative arrangement, the facilities of the Civic Theatre are made available to drama students in the night program.

## Anthropology

Assistant Professor: Merz  
Instructor: French

### Lower-Division Courses

- (U) Anth 207, 208, 209. **Introduction to Cultural Anthropology.** 3 hours each term.  
The meaning of culture; its significance for human beings; its diverse forms and degrees of elaboration among different groups of men; its processes of growth and expansion. French. Wednesday, 6:45-9:25.

### Upper-Division Courses

- (U) Anth 317, 318. **The American Indian.** 3 hours each term winter and spring.  
Indian life in North, Central, and South America before white contact; contemporary Indian life where groups still survive. Prerequisite: upper-division standing. Merz. Tuesday, 6:45-9:25.

## Art

Associate Professor: Reynolds  
Instructors: Barrier, Bunce, Kennedy, Littman, Lynch, McLarty, Russo, Voorhies.

The following classes are given in cooperation with the Museum Art

School. The registration fee is \$12.00 per term for each class, plus a special course fee as indicated in some of the courses. Students register at the Museum Art School, S. W. Park Avenue at Madison Street, where the classes are held.

### Lower-Division Courses

- (U) AA 201a, 201b, 201c. **Introduction to the Visual Arts.** 1 hour each term.  
For beginners and laymen. A survey of many aspects of the arts, with discussion and practice in drawing, composition, painting, and sculpture, for the purpose of increasing the student's powers of observation and expression and leading to a better understanding of the arts. Barrier, McLarty. 7:30-9:30. Section I: Tuesday. Section II: Thursday. Course fee, \$3.00 in addition to registration fee.
- (U) \*AA 255. **Lower-Division Ceramics.** 1 hour any term.  
Creative approach to ceramics, including knowledge of various clays, building forms by hand, and experience with glazes. Kennedy. 7:30-9:30. Section I: Tuesday. Section II: Wednesday. Section III: Thursday. Course fee, \$4.00 in addition to registration fee.
- (U) \*AA 290. **Lower-Division Painting.** 1 hour any term.  
Problems of the individual student; instruction in the use of a variety of mediums. 7:30-9:30. Section I: Voorhies, Tuesday. Section II: Russo, Wednesday. Section III: Wiley, Thursday.
- (U) \*AA 291. **Lower-Division Drawing.** 1 hour any term.  
Life drawing; emphasis on drawing from live models. 7:30-9:30. Section I: Wiley, Wednesday. Section II: Voorhies, Thursday.
- (U) \*AA 293. **Elementary Sculpture.** 1 hour any term.  
Experience with modeling from the figure and from imagination and practice in casting. Progressive series of problems in sculpture. 7:30-9:30. Littman. Section I: Tuesday. Section II: Thursday. Course fee, \$3.00 in addition to registration fee.

### Upper-Division Courses

- (U) AA 398. **Pen and Pencil.** 1 hour any term.  
Lettering and calligraphy. Reynolds. Tuesday, 7:30-9:30.
- (U) AA 480. **Graphic Arts (Silk Screen).** 1 hour any term.  
A study of design principles and technical methods involved in silk screen. Bunce. Wednesday, 7:30-9:30. Course fee, \$4.00 in addition to registration fee.
- A 0313. **Commercial Design.** No credit, any term.  
Commercial design including posters, cartoons, and book jackets. Prerequisite: previous training. Lynch. Tuesday, 7:30-9:30.
- A 07. **Basic Design.** No credit, any term.  
Study of basic art structure, elements, line, dark and light, and color. Barrier. Wednesday, 7:30-9:30.

## Art Education

Assistant Professor: Wasson  
Instructors: Halvorsen, Schukart

### Lower-Division Courses

- (S) AA 178. **House Planning and Architectural Drawing.** 3 hours fall. Monday, 6:45-9:25.

\* Students who have met the prerequisites of 15 hours in either AA 255, 290, 291, and 293 may petition to be allowed to take these courses for upper-division credit.

- (C) A 211. **Art Structure I.** 3 hours fall.  
The elements of design, color, and representation as they related to the needs of the student. Creative work is stressed, the student receiving actual experience in different media. Schukart. Monday, 6:45-9:25.
- (C) A 212. **Art Structure II: Design.** 2 hours winter.  
Principles of design, structural and decorative; application through various media; foundation material for design in school work. Prerequisite: A 211. Schukart. Monday, 6:45-9:25.
- (C) A 217. **Lettering.** 1 hour winter.  
Lettering, including a study of historic styles such as Roman, Gothic, Old English, as well as the modern decorative, manuscript, and poster types. Schukart. Monday, 7:15-9:00.
- (C) A 218. **Crafts.** 2 hours winter.  
Application of original designs to glass etching, metal etching, foil metal tapping, plaster carving, leather, stencil, plastic, and wood. Monday, 6:45-9:25.

#### Upper-Division Courses

- (C) A 311. **Art Structure III.** 3 hours spring.  
Evaluation of the various approaches to the creative art experiences made possible in the flexible course of study. Lectures, reading and discussions deal with recent trends of art expression relative to individual needs at various age levels from primary through the junior high school. Prerequisite: A 211, 212. Schukart. Monday, 6:45-9:25.
- (U) AA 414p, 415p, 416p. **Art Education.** 3 hours each term.  
Study of contemporary influences in art education in regard to method, subject matter, material, etc., in relation to teaching problems, lesson plans, units, and courses of study. Halvorsen. Thursday, 6:45-9:25.

### Bacteriology

(See SCIENCE)

### Botany

(See SCIENCE)

### Business Administration

Professors: Ballaine, Lomax  
Associate Professors: Campbell, Collier, Ziebarth  
Assistant Professors: Deutschmann, Ford, Johnson, Parker, Richins, Trueblood  
Instructors: Bell, Chappel, Conkling, Marlett, Pattullo, Skelton, Wallsinger

### Accounting

#### Lower-Division Courses

- (U) BA 111, 112, 113. **Constructive Accounting.** 3 hours each term.  
Technique of account construction; preparation of financial statements. Application of accounting principles to practical business problems. Required of majors; prerequisite to advanced work in business, 6:45-9:25.
- Fall:* BA 111, Skelton, Monday.  
BA 111, Skelton, Tuesday.  
BA 113, Parker, Thursday.

- Winter:* BA 111, Parker, Thursday.  
BA 112, Skelton, Monday.  
BA 112, Skelton, Tuesday
- Spring:* BA 112, Parker, Thursday.  
BA 113, Skelton, Monday.  
BA 113, Skelton, Tuesday.

#### Upper-Division Courses

- (U) BA 419, 420. **C.P.A. Problems.** 2 hours each term, fall and winter.  
Intensive study of problems and questions asked by examining boards and in the American Institute of Accountants examinations. Training in correct analysis and correct form and in speed in solving problems. Monday, 7:15-9:00.
- (U) BA 479, 480. **Income-Tax Procedure.** 3 hours each term, fall and winter.  
Income-tax laws of the United States and the State of Oregon. Facts involved in making up the various returns; use of the various sources of information. Prerequisite: senior standing in BA 483, 484, 485 or equivalent. Pattullo. Thursday, 6:45-9:25.
- (U) BA 483, 484, 485. **Accounting Theory and Practice.** 3 hours each term.  
The theory of accounting records and statements; statements of affairs, depreciation, analysis of profit-and-loss accounts, receiverships, balance-sheet construction and problems. Required of students majoring in accounting. Marlett. Monday, 6:45-9:25.
- (U) BA 489, 490, 491. **Advanced Accounting Theory and Practice.** 3 hours each term.  
Application of the technical phases of accountancy. Professional training in practical accounting theory and auditing. Prerequisite: BA 483, 484, 485. Required of accounting majors. Marlett. Tuesday, 6:45-9:25.

### General Business Courses

#### Lower-Division Courses

- (U) BA 221. **Elements of Organization and Production.** 3 hours fall.  
Principles of management as applied to commercial and industrial concerns. Ziebarth. Wednesday, 6:45-9:25.
- (U) BA 222. **Elements of Finance.** 3 hours spring.  
The financial problems of corporations. Organizations of corporations; how they obtain long-term funds; management of working capital; distribution of securities. Required of all majors. Prerequisite: BA 111, 112, 113 or consent of instructor. Ballaine. Thursday, 6:45-9:25.
- (U) BA 223. **Elements of Marketing.** 3 hours winter.  
Methods, policies, and problems. Private and cooperative channels, auctions, exchanges, middlemen; demand creation, assembly, standardization, packaging, financing, risk taking, distribution. Required of all majors. Ballaine. Thursday, 6:45-9:25.

#### Upper-Division Courses

- (U) BA 312. **Principles of Cost Accounting.** 3 hours winter.  
Basic principles of cost accounting; departmentalization; expense allocation; designed primarily for students interested in general accounting. Prerequisite: BA 111, 112, 113. Parker, Tuesday, 6:45-9:25.

- (U) BA 313. **Analysis of Financial Statements.** 3 hours spring.  
Managerial accounting for effective management and control of industrial and trading concerns. Preparation, analysis, and interpretation of balance sheets and operating reports. Prerequisite: BA 111, 112, 113. Parker, Tuesday, 6:45-9:25.
- (U) BA 323. **Office Organization and Management.** 2 hours spring.  
Elements of office organization, office management, office records and systems. Special study of the office manager as an executive, and his qualifications. Prerequisite: consent of instructor. Wallsinger, Monday, 7:15-9:00.
- (U) BA 339. **Principles of Advertising.** 3 hours fall.  
Advertising as a factor in the distributive process; the advertising agency; the "campaign"; the function of research and testing; the selection of media—news-papers, magazines, broadcasting, outdoor advertising, direct mail. Deutschmann, Thursday, 6:45-9:25.
- (U) BA 411. **Business Public Relations.** 3 hours fall.  
Public relations of business firms; tools and techniques for determining public reactions; methods of securing good public relations. Open to nonmajors with consent of the instructor. Chappel, Tuesday, 6:45-9:25.
- (U) BA 412. **Personnel Management.** (G) 3 hours fall.  
The place and significance of personnel management in the modern business organizations; personnel policies and practices conducive to good relations with employees. Personnel problems of small organizations. Prerequisite: BA 222, 223 or consent of instructor. Ford, Friday, 6:45-9:25.
- (U) BA 413. **Wage and Salary Administration.** (G) 3 hours.  
Systematic wage and salary program as an essential part of an efficient personnel program. Basic methods for determining individual wage rates and wage structures; job evaluation. Prerequisite: BA 412.
- (U) BA 414. **Problems in Personnel Management.** (G) 3 hours.  
Specific personnel problems at various organization levels. Each student proposes solutions, and group solutions are attempted through class discussion, in the light of various viewpoints and sound personnel principles. Prerequisite: BA 411, BA 412, and consent of instructor.
- (U) BA 416, 417, 418. **Business Law.** 3 hours each term.  
Application of fundamental legal principles to typical business situations; illustrated by selected cases. The following topics are considered: contracts, bankruptcy, insurance, suretyship, sales, agency, personal property, real property, business organizations, partnerships, corporations, associations, trusts, joint stock companies, negotiable instruments. Collier, 6:45-9:25. Section I: Tuesday. Section II, Wednesday.
- (U) BA 425. **Real-Estate Fundamentals.** (G) 3 hours fall.  
Problems relating to the purchase, transfer, lease, and financing of land and buildings; home building, site selection, principles of house-and-lot evaluation. Open to nonmajors. Johnson, Friday, 6:45-9:25.
- (U) BA 435. **Sales Management.** (G) 3 hours fall.  
Structure of sales organizations; sales policies; control of sales operations; sales planning; market analysis; coordination of production and sales; selection, training, and management of salesmen. Prerequisite: BA 223, or consent of instructor. Richins, Friday, 6:45-9:25.

- (U) BA 436. **Retail Store Management.** (G) 3 hours winter.  
Retail policies and problems. Stock-control systems, buying, methods of sales promotion, plant operation, personnel, credit, turnovers, pricing, expense classification and distribution. Prerequisite: BA 223 or consent of instructor. Richins, Friday, 6:45-9:25.
- (U) BA 437. **Credits and Collections.** (G) 3 hours fall.  
The credit and collection policies of wholesale concerns, retail firms, and banks. The sources of credit information, the use of agency reports, interpretation of financial statements; collection tools and their uses. Prerequisite: BA 222, 223, or consent of instructor. Ballaine, Thursday, 6:45-9:25.
- (U) BA 442. **Principles of Salesmanship.** (G) 3 hours spring.  
Principles and techniques of personal salesmanship; selling reactions. From the standpoints of seller and buyer. Prerequisite: BA 223 or consent of instructor. Richins, Friday, 6:45-9:25.
- (U) BA 448. **Air Transportation.** (G) 3 hours winter.  
Air transportation systems; Federal regulations; airport development in the United States; feeder air lines; nonscheduled air transportation. Prerequisite: BA 111, 112, 113; BA 222, 223 or consent of instructor. Ziebarth, Wednesday, 6:45-9:25.
- (U) BA 456. **Property Insurance.** 3 hours spring.  
Nature of coverage, types of underwriters, types of contracts; analysis of the policy contract, special endorsements and factors determining rates and adjustment of losses. Prerequisite: consent of instructor. Trueblood, Tuesday, 6:45-9:25.
- (U) BA 463, 464, 465. **Investments.** 3 hours each term.  
Methods for evaluating various kinds of investment securities; formulation of an investment policy. Detailed study of the special phases of investments including taxation, brokerage services, and security markets. Application of investment principles to the analysis of specific securities in the industrial, public-utility, and railroad fields. Bell, Monday, 6:45-9:25.
- (U) BA 467. **Public-Utility Management.** (G) 3 hours fall.  
Production, distribution, and finance problems of public utilities; rates, accounting methods, flotation of securities, public relations, and consolidations. Prerequisites: BA 222, 223 or consent of instructor. Conkling, Tuesday, 6:45-9:25.
- (U) BA 471, 472, 473. **Management of Ocean Shipping.** (G) 3 hours each term.  
A year sequence in shipping economics and techniques. Fall: ocean-carrier organization; functions of the port engineer; operating problems related to fuels and power plants. Winter: functions of the terminal superintendent; harbor belt lines; foreign-trade zones; functions of the freight traffic manager; handling and stowage of cargo; papers and documents. Spring: chartering; freight forwarding; marine insurance. Prerequisite: BA 222, 223 or consent of instructor. Lomax, Wednesday, 6:45-9:25.
- (S) BA 497. **Human Relations in Business and Industry.** (g) 3 hours spring.  
Relationships among managerial, supervisory and other workers; actual cases used to help develop attitudes, frames of reference, and approaches which will be useful in solving human relations problems in business. Prerequisite: senior standing or consent of instructor. Campbell, Tuesday, 6:45-9:25.

*See also:*

Ec 201, 202, 203. **Principles of Economics** (under Economics).

Wr 214. **Business English** (under English—Writing).

Sp 221. **Public Discussion** (under Speech).

Sp 225, 226. **Public Speaking for Business and Professional Men and Women** (under Speech).

## Chemistry

(See SCIENCE)

## Drama

(See SPEECH)

## Economics

Assistant Professors: Halley, Wattles

Instructor: Robbins

Teaching Fellow: McAllister

### Lower-Division Courses

(U) Ec 201, 202, 203. **Principles of Economics**. 3 hours each term.

Principles that underlie production, exchange, distribution, etc. Prerequisite: sophomore standing. Halley. Wednesday, 6:45-9:25.

### Upper-Division Courses

(U) Ec 375, 376, 377. **Economic Theory**. 3 hours each term.

Systematic study of the concepts and methods of current economic analysis, with special attention to the neoclassical school. Includes work in the fields of value and distribution, fluctuations, employment, etc. Required of all majors. Prerequisite: Ec 201, 202, 203 or consent of instructor. McAllister. Wednesday, 6:45-9:25.

(U) Ec 440, 441, 442. **International Economics and Finance**. (G) 3 hours each term.

Theory of international trade; nature and effects of government interference in the form of bounties, subsidies, import and export duties; commercial policies of the more important nations. Economic causes and effects of the two world wars; remedial policies proposed. Prerequisite: Ec 201, 202, 203 or consent of instructor. Fall and Winter: Wattles. Monday, 6:45-9:25. Spring: Robbins. Tuesday, 6:45-9:25.

## Education

Professors: Caughlan, Clinton, Epler, Jacobson, Killgallon, Spalding, Stevens, Zeran  
Associate Professors: Bernard, Franchere, Hearn, Hopson, Lange, Morris, Phelps, Reichart, Sandin

Assistant Professors: Ferrier, Hahn, Hudson, Hummel, Rummel, Wiegman

Instructors: Bond, Greenslade, Hoel, Keats, Schukart.

### Upper-Division Courses

(S) (U) Ed 311. **Secondary Education in American Life**. 3 hours fall.

Development and present status of secondary education as an American institution; social and psychological bases; objectives, functions, programs, curricula, and courses; personnel work and other responsibilities of teachers. Thursday, 6:45-9:25.

(C) (S) (U) Ed 312. **Educational Psychology**. 3 hours winter or spring.

Physical, mental, emotional, and social development as bases for learning; educationally significant individual and group differences; learning and factors affecting learning. Thursday, 6:45-9:25. Spring: Bernard.

(S) (U) Ed 313. **Principles of Teaching**. 3 hours spring.

Study of the actual classroom teaching process, including classroom organization and management, planning teaching units, evaluating pupil learning, and similar problems. Prerequisite: Ed 312. Thursday, 6:45-9:25.

(U) Ed 316. **Oregon School Law and System of Education**. 2 hours any term.

Analysis of the Oregon school system and of the laws on which the system is based. Problems of Oregon schools, plans proposed for their solution, and trends in educational development in the state. 7:15-9:00. Fall: Tuesday. Winter: Friday. Spring: Wednesday.

NOTE: The foregoing courses, with Ed 415. Supervised Teaching, 6 hours, and Hst 377. Oregon History, 2 hours, constitute the basic secondary certification courses.

\* (C) Ed 351. **Health Education**. 2 hours winter.

Teaching of health education with emphasis on health knowledge, health attitudes, and health habits of school children, and the development of a health-service program. Special study of the state health-education program. Prerequisite: Sc 101, 102, 103; H 150, or consent of instructor. Greenslade. Monday, 7:15-9:00.

(C) Ed 354. **Introduction to Education**. 3 hours winter.

Introduction to the field of education, including a historical survey of the American public-school system; the importance of public education to the life of the republic; the relation of the school to other social agencies; the relationship of education to other professions; the opportunities for service in the principal fields of educational work; current issues in American education; and the desirability of having a working philosophy of education. Stevens. Tuesday, 6:45-9:25.

\* (C) Ed 358. **Primary Education**. 3 hours fall.

Principles and procedures of curriculum for primary grades; the young child studied in relation to home, primary school, and other agencies in the community. Designed to acquaint students with modern teaching procedures and materials, and to provide opportunity for application of sound psychological principles to guidance of children's learning. Class discussion, observations in the training schools, and organization of teaching materials. Prerequisite: Ed 354, Psy 201, or consent of instructor. Phelps. Friday, 6:45-9:25.

\* (C) Ed 359. **Intermediate and Upper-Grade Education**. 3 hours winter.

Principles and procedures of curriculum for intermediate and upper-grades. Designed to acquaint student with modern teaching procedures and materials and to provide opportunity for application of sound psychological principles to guidance of children's learning. Class discussion, observation in the training schools, and organization of teaching materials. Prerequisite: Ed 354, Psy 201, or consent of instructor. Phelps. Friday, 6:45-9:25.

\* (C) Ed 380. **Elementary-School Library**. 2 hours winter.

Organization, administration, and development of the elementary-school library, including instruction in simple methods of handling essential technical, mechanical, and business processes; the care and repair of books; evaluation of reference materials useful for both teacher and children; stimulation of wider use of books for study and recreation; utilization of the library resources of Oregon, and service of the school library to the community. Bond. Friday, 7:15-9:00.

- (U) Ed 407. **Education Seminar: Foundations of Education.** 3 hours winter.  
A comprehensive survey of some of the major historical, philosophical, psychological, and social factors underlying present-day American education. Problems of educational and personal adjustment in modern society. Stevens and staff. Wednesday, 6:45-9:25.
- (U) Ed 407. **Education Seminar: Principles of Public Health.** 3 hours winter.  
Weinzirl. (See PH 511.)
- (C) Ed 408. **Methods and Research Materials: Art.** (G) 3 hours fall.  
Problems and methods in selecting and organizing materials for teaching in art. Emphasis for graduate students will be placed upon recent research and literature dealing with instructional materials, methods, and facilities, including the completion of a special project. Schukart. Friday 6:45-9:25.
- (C) Ed 408. **Methods and Research Materials: Physical and Health Education.** (G) 3 hours spring.  
Problems and methods in selecting and organizing materials for teaching in physical and health education. Emphasis for graduate students will be placed upon recent research and literature dealing with instructional materials, methods, and facilities, including the completion of a special project. Hudson. Wednesday, 6:45-9:25.
- (C) Ed 408. **Methods and Research Materials: Language Arts.** (G) 3 hours winter.  
Problems and methods in selecting and organizing materials for teaching in language arts. Emphasis for graduate students will be placed upon recent research and literature dealing with instructional materials, methods, and facilities, including the completion of a special project. Friday, 6:45-9:25.
- (C) Ed 408. **Methods and Research Materials: Music.** (G) 3 hours spring.  
Problems and methods in selecting and organizing materials for teaching music. Emphasis for graduate students will be placed upon recent research and literature dealing with instructional materials, methods, and facilities, including the completion of a special project. Albertson. Thursday, 6:45-9:25.
- (C) Ed 408. **Methods and Research Material: Reading.** (G) 3 hours fall.  
Problems and methods in selecting and organizing materials for teaching in reading. Emphasis for graduate students will be placed upon recent research and literature dealing with instructional materials, methods, and facilities, including the completion of a special project. Friday, 6:45-9:25.
- (C) Ed 408. **Methods and Research Materials: Science.** (G) 3 hours fall.  
Problems and methods in selecting and organizing materials for teaching science. Emphasis for graduate students will be placed upon recent research and literature dealing with instructional materials, methods, and facilities, including the completion of a special project. Hopson. Friday, 6:45-9:25.
- (C) Ed 408. **Methods and Research Materials: Social Science.** (G) 3 hours winter.  
Problems and methods in selecting and organizing materials for teaching social science. Emphasis for graduate students will be placed upon recent research and literature dealing with instructional materials, methods, and facilities, including the completion of a special project. Wednesday, 6:45-9:25.
- (C) Ed 408. **Methods and Research Materials: Arithmetic.** (G) 3 hours winter.  
Problems and methods in selecting and organizing materials for teaching in arith-

- metic. Emphasis for graduate students will be placed upon recent research and literature dealing with instructional materials, methods, and facilities, including the completion of a special project. Hoel. Monday, 6:45-9:25.
- \* (C) Ed 418. **Elementary Tests and Measurements.** (G) 3 hours fall or spring.  
Presentation of standardized tests in the various subjects taught in the elementary schools and in group intelligence tests, the uses and limitations of such tests, the general principles of classroom test making, and practice in administering, scoring, and interpreting various tests given in the elementary school. Stevens. Tuesday, 6:45-9:25.
- (S) (U) Ed 424. **Measurement in Education.** (G) 3 hours winter.  
Use and interpretation of informal and standardized tests as supervisory and guidance instruments for the diagnosis, analysis, evaluation, and improvement of instruction in the elementary and secondary schools. Test planning, item writing, essay testing, administration and scoring, analysis of scores and grade assignment. Simple statistics of test interpretation. Rummel. Tuesday, 6:45-9:25.
- \* (U) (S) (C) Ed 435. **Audio-Visual Aids.** (G) 3 hours fall or spring.  
The development and use of audio-visual aids in education. Emphasis on actual learning situations in which radio, recordings, films, slides, pictures, maps, charts, etc., are utilized. Sources of materials and equipment; administration of audio-visual program. 6:45-9:25. Fall: Thursday. Spring: Hahn. Tuesday.
- (S) (U) Ed 440. **History of Education.** (G) 3 hours winter.  
A general review of the growth and development of education in relation to the civilization of the times; emphasis on development of educational philosophies. Stevens. Monday, 6:45-9:25.
- (G) Ed 450. **Radio Education (Television).** (G) 3 hours fall.  
A study of the use of radio and television as instruments of education. The course includes discussion, demonstrations, reports, and lectures on radio's and television's place in education; philosophy of radio and television education; planning and supervising the school use of radio and television; organizing the school and community for selection and use of programs; evaluating instruction by radio and television; objectives in developing discrimination; possibilities of future developments. Morris. Thursday, 6:45-9:25.
- (S) (U) Ed 460. **Psychology of Childhood.** (G) 3 hours winter.  
The facts and principles of child behavior and development from conception to adolescence. Prerequisite: general psychology or consent of instructor. Bernard. Thursday, 6:45-9:25.
- (S) (U) Ed 461. **Adolescence: Growth and Development of the Individual.** (G) 3 hours winter.  
Processes through which the normal human being reaches maturity, acquires effective use of his bodily equipment and learning capacity, and makes satisfactory personal and social adjustments. Bernard. Tuesday, 6:45-9:25.
- (U) Ed 462. **Psychology of Exceptional Children.** (G) 3 hours spring.  
Survey of characteristics and problems of all types of exceptional children, with special emphasis on those with sensory handicaps; consideration of essential educational adaptations. Keats. Tuesday, 6:45-9:25.
- (U) Ed 463. **The Maladjusted Child.** (G) 3 hours fall.  
The discovery and treatment of the emotionally and socially maladjusted child; the home, school, and community in relation to the child's mental health. Bernard. Tuesday, 6:45-9:25.



- (U) Ed 464. **The Mentally Handicapped Child.** (G) 3 hours spring.  
Identification and guidance of the mental deficient, the slow learner, and the gifted. Monday, 6:45-9:25.
- \* (C) Ed 467. **Applied Mental Hygiene.** 3 hours fall or spring.  
A study of the development of personality, personality conflicts, mechanisms of adjustment, and the basic principles of mental hygiene. Emphasis is placed on application of mental hygiene principles to personality development of teachers and of children. Bernard. 6:45-9:25. Fall: Monday. Spring: Friday.
- (C) Ed 468. **Diagnostic and Remedial Instruction in Reading.** (G) 3 hours spring.  
Opportunities for experienced teachers to consider the typical causes of difficulty in the reading program and to evaluate procedures to be used in remedial classes by means of lectures, demonstrations, readings, and case studies. Phelps. Thursday, 6:45-9:25.
- (C) Ed 471. **School Finance.** (G) 3 hours fall.  
Emphasis upon the major problems of financing education, including principles in budget making, problems of school revenues, tax sources, and the unit costs of education. Hummel. Monday, 6:45-9:25.
- (C) Ed 472. **Principles and Practices in Curriculum Construction.** (G) 3 hours winter.  
Implications of basic social, philosophical, and psychological factors for curriculum planning and organization at both the elementary and secondary level, including practical emphasis upon specific techniques in curriculum making for the teacher. Spalding. Wednesday, 6:45-9:25.
- (C) Ed 473. **Administration of the Elementary School.** (G) 3 hours fall.  
Study of the principles and desirable practices in the administration of elementary schools, with special reference to organization for instruction, administering pupil personnel and special services, public relations, school buildings and equipment, guidance, and staff relations. Wednesday, 6:45-9:25.
- (C) Ed 474. **Supervision of the Elementary School.** (G) 3 hours spring.  
Practical study of principles and desirable practices in the supervision of elementary schools, with special reference to the role, duties, and problems of supervisors, including specific techniques for the evaluation and improvement of teaching-learning situations. Spalding. Monday, 6:45-9:25.
- (S) SEd 481. **Alcohol Studies in the School Curriculum.** (G) 3 hours winter.  
Incorporation of scientific information about alcohol in school curriculum; physiological, psychological, sociological, and legal aspects of alcoholism. Prerequisite: 24 hours upper-division education. Ferrier. Thursday, 6:45-9:25.
- (S) (C) Ed 485. **Principles and Practices of Guidance Services.** (G) 3 hours fall.  
Overview of guidance and personnel work. Attention given to vocational, educational, health, social, personality, recreational, and other aspects of individual development. Participation of teachers, counselors, administrators, parents, and community organizations in a program of guidance. For all teachers and administrators. Students specializing in guidance should begin with this course. Prerequisite: senior standing. Zeran. Tuesday, 6:45-9:25.
- (S) Ed 486. **Occupational and Educational Information.** (G) 3 hours winter.  
Materials available regarding occupations; interpretations of present trends;

value and usefulness for high-school and college students. Prerequisite: senior standing. Tuesday, 6:45-9:25.

- (S) Ed 487. **Counseling Techniques.** (G) 3 hours spring.  
Mental, achievement, trade, and other tests; administration of such tests; classifications, methods in educational and vocational counseling. Prerequisite: Ed 485. Tuesday, 6:45-9:25.
- (U) Ed 490. **Social Education.** (G) 3 hours fall.  
Structure and functioning of society, as a background for the study and evaluation of education in its varied forms; the contribution of sociological principles and findings to the improvement of educational practices. Epler. Wednesday, 6:45-9:25.  
\* NOTE: These courses will meet specific requirements for *regular* elementary certification.

#### Graduate Courses

- (U) Ed 501. **Educational Research.** Terms and hours to be arranged.  
Supervised research by qualified graduate students and the faculty members in whose field the investigation lies. Staff.
- (U) Ed 501. **Educational Research (Field Study).** Terms and hours to be arranged.  
Field study for graduate students who plan to take the Master of Education degree from the University of Oregon. Staff.
- (U) (S) (C) Ed 503. **Thesis.** Terms and hours to be arranged.
- (U) (S) (C) Ed 505. **Reading and Conference.** Terms and hours to be arranged.
- (U) Ed 507. **Education Seminar: Foundations of Education.** 3 hours winter.  
A comprehensive survey of some of the major historical, philosophical, psychological, and social factors underlying present-day American education. Problems of educational and personal adjustment in modern society. Stevens and staff. Wednesday, 6:45-9:25.
- (U) Ed 507. **Education Seminar: Higher Education.** 3 hours spring.  
Problems relating to higher education: finance, organization, administration, student personnel, staff, and general trends. Epler. Wednesday, 6:45-9:25.
- (U) Ed 507. **Education Seminar: Special Education.** 3 hours fall.  
An intensive study of resources, materials, and methods in special education in the public schools. Lectures, discussion, and special projects. Killgallon. Thursday, 6:45-9:25.
- (U) Ed 507. **Education Seminar: Problems of Aging.** 3 hours winter.  
Caughlan. Thursday, 6:45-9:25.
- (U) Ed 507. **Education Seminar: Problems of School Curriculum.** 3 hours winter.  
Spalding. Saturday, 9:00-11:40 a.m.
- (U) Ed 507. **Education Seminar: Problems of Public School Administration.** 3 hours spring.  
Spalding. Saturday, 9:00-11:40 a.m.
- (U) Ed 507. **Education Seminar: Teaching of High-School English.** 3 hours winter.  
Franchere. Tuesday, 6:45-9:25.

- (C) Ed 512. **Methods of Research and Writing.** 3 hours fall or spring.  
Study and evaluation of the methods, techniques and tools of research. Critical analysis of sample research studies and development of criteria and methods for conducting research. Techniques of reading research and writing reports and articles for professional journals. 6:45-9:25. Fall: Reichart. Friday. Spring: Bernard. Monday.
- (U) (S) Ed 512. **Research Procedures in Education.** 3 hours fall or spring.  
Methods, techniques, and tools for doing research work; meaning of scientific method; ways of locating and formulating problems; techniques for solving problems; necessary statistical tools; collections and interpretation of data; preparation of research reports. 6:45-9:25. Fall: Reichart. Friday. Spring: Bernard. Monday.
- (S) Ed 517. **Statistical Methods in Education.** 3 hours fall.  
Elements of statistical method; methods of treating collective facts, average facts, and correlated facts, as applied to giving and scoring tests, finding costs, etc. Prerequisite: Ed 424. Clinton. Tuesday, 6:45-9:25.
- (U) (S) Ed 522. **Secondary-School Curriculum.** 3 hours fall.  
An advanced course for experienced teachers. The school in the community; guidance activities in the school; extraclass activities; the role of the school in contemporary society; the teacher in the local community. Jacobson. Monday, 6:45-9:25.
- (U) Ed 523. **School Activities.** 3 hours spring.  
Theories involved in extraclass activities; objectives, organization, and supervision; student participation in social control; major and minor activities; problems of coordination, finance, and teacher personnel. Tuesday, 6:45-9:25.
- (U) Ed 527. **Secondary-School Administration and Supervision.** 3 hours spring.  
The secondary-school principalship; principles of administration, staff relationships, public relations, and professional growth; business administration; administration of guidance services, curriculum, and school activities; evaluation of the secondary school. Hearn. Wednesday, 6:45-9:25.
- (U) Ed 529. **Advanced Educational Psychology.** 3 hours winter.  
Review of some modern viewpoints in educational psychology; discussion of useful experimental material. Prerequisite: graduate standing in education. Bernard. Monday, 6:45-9:25.
- (U) Ed 534. **Science in the Elementary School.** 3 hours fall.  
The place of science in the elementary school, with particular reference to the value of science in the lives of children. Selecting and organizing content; coordinating science with elementary-school activities; methods and materials; rooms and equipment. Hopson. Friday, 6:45-9:25.
- (U) Ed 535. **Social Studies in the Elementary School.** 3 hours winter.  
Social-education objectives; children's social problems; unit development; work-study skills; organization of the program, materials; research findings basic to the social education of children. For experienced teachers. Wednesday, 6:45-9:25.
- (U) Ed 536. **Language Arts in the Elementary School.** 3 hours winter.  
Objectives, developmental needs, and research findings in teaching language arts; planning the elementary-school language-arts program; current issues in the teaching of such skills as spelling, writing, and speaking-listening; newer instructional materials; evaluative criteria and tests for determining development of children in the language arts. Friday, 6:45-9:25.
- (U) Ed 537. **Reading in the Elementary School.** 3 hours winter.  
Nature of the reading process, objectives, organization of a desirable reading program; reading readiness, reading skills; procedures and materials for developing children's reading abilities; methods of diagnosing difficulties and evaluating progress; research findings concerning the teaching of children to read. Friday, 6:45-9:25.
- (U) Ed 538. **Mathematics in the Elementary School.** 3 hours winter.  
Number abilities needed by children; research findings on mathematics education; designing number experiences; theories of teaching, desirable teaching procedures; selection and use of materials. Hoel. Monday, 6:45-9:25.
- (U) (S) Ed 543. **History of American Education.** 3 hours spring.  
Intellectual development of America with special reference to education. Prerequisite: graduate standing in education. Stevens. Monday, 6:45-9:25.
- (U) (S) Ed 546. **Philosophy of Education.** 3 hours spring.  
Study of the broad fundamental principles and problems of education as evaluated by the various schools of philosophical thought. Stevens. Wednesday, 6:45-9:25.
- (U) Ed 552. **Elementary-School Problems.** 3-4 hours winter.  
Selected current problems; issues and theories of elementary education; characteristics of modern teaching; major trends in elementary education. Tuesday, 6:45-9:25.
- (U) Ed 553. **Elementary-School Curriculum.** 3-4 hours fall.  
A systematic study of the elementary-school curriculum, including pupil needs in everyday life situations, objectives, essentials of a good program, varying curriculum designs, organization of learning experiences, evaluation of learning, and appraisal of newer curriculum practices. Sandin. Tuesday, 6:45-9:25.
- (U) Ed 554. **Elementary-School Supervision and Administration.** 3-4 hours spring.  
The role, duties, needs, and problems of modern supervision, including the evaluation and improvement of the teaching-learning situation. Spalding. Wednesday, 6:45-9:25.
- (U) Ed 565. **Curriculum Foundations.** 3 hours fall.  
Implication of basic social, philosophical, and psychological factors in curriculum planning and organization; historical background; techniques of curriculum planning. Wiegman. Wednesday, 6:45-9:25.
- (U) Ed 566. **Curriculum Construction.** 3 hours winter.  
Survey and appraisal of curriculum patterns; state and city programs; courses of study in major subject areas; techniques of course-of-study planning. Spalding. Wednesday, 6:45-9:25.
- (U) Ed 567. **Curriculum Materials.** 3 hours spring.  
Effective use and organization of curriculum materials; text and reference books, supplementary pamphlet material, films and slides, records and recordings, pictures, radio, etc.; techniques of unit construction and community survey. Monday, 6:45-9:25.
- (U) Ed 572. **Public-School Administration.** 3 hours fall.  
Duties and responsibilities of school administrators. Relationships with board,

staff, and community. Consideration of the professional and nonprofessional problems of school administration. Wednesday, 6:45-9:25.

- (U) ed 573. **Public-School Organization.** 3 hours winter.  
The organizational patterns and programs of both elementary and secondary schools. Details of administration, including scheduling, records and accounts, public accounting, personnel and guidance programs, activity programs, etc. Spalding. Monday, 6:45-9:25.
- (U) Ed 574. **School Supervision.** 3 hours spring.  
Purposes and techniques of school supervision, as applied to both elementary and secondary schools. The organization of supervisory programs and diagnosis of both teacher and pupil difficulties. Spalding. Monday, 6:45-9:25.
- (U) Ed 575. **School Finance.** 3 hours fall.  
The problems of school finance and business management; sources of school income, relationship to the state financial structure; budgeting and accounting, as affected by the school program. Construction of a budget is a part of the course. Hummel. Monday, 6:45-9:25.
- (U) Ed 576. **School Buildings.** 3 hours winter.  
A study of the problems involved in planning, financing, and construction of school buildings; the care and maintenance of buildings; and problems of equipment. An analysis of problems in a specific district is a part of the course. Hummel. Monday, 6:45-9:25.
- (S) (U) Ed 587. **Adult Education.** 3 hours fall.  
History and philosophy of the adult-education movement; its aims, ranging from the specifically vocational to the cultural. Representative work and methods in adult education. Stevens. Wednesday, 6:45-9:25.
- (S) SEd 598. **Science Curriculum in Secondary Schools.** 3 hours winter.  
Trends, problems, and procedures in junior-high and secondary-school science program. Prerequisite: 24 hours upper-division education including Ed 415. Lange. Tuesday, 6:45-9:25.

### In-Service Training Courses

Instructors: Bentall, Childers, Dobson, Ernst, Halvorsen, Hamilton, Harkins, Henriksen, Hicks, Hoel, Jenne, Jones, Keats, Laber, Logan, Nelson, Oliver, Smith, Stotler, Trenholme, Wilson, York, Zollinger

The following courses, arranged in cooperation with the Portland Public Schools, are given for in-service training of Portland teachers. They are also open to other qualified students. Unless otherwise indicated, all the classes are held Tuesday afternoon, from 4:30 to 6:15, at the schools designated in course descriptions.

#### Lower-Division Courses

- (C) A 218. **Crafts.** 2 hours fall.  
Application of original designs to glass etching, metal etching, foil metal tapping, plaster carving, leather, stencil, plastics, and wood. Halvorsen. Holladay School.
- (U) PE 283. **Rhythms for Children.** 2 hours any term.  
Programs of dance for kindergarten and primary-school children. Locomotor skills, imitative movements, singing games, simple folk dances, dramatizations, and

creative dance studies. Harkins. Fall: Glenhaven School; Winter: Alameda School; Spring: Shattuck School.

- (S) Ph 161. **Rudiments of Photography.** 2 hours spring.  
Planned for beginners in photography. The topics covered include cameras, printing, enlarging, developing, composition, materials, and lighting. Opportunities for field trips and print clinics will be provided. Department of Instruction Materials, Administration Building, Portland Public Schools.

#### Upper-Division Courses

- (U) Ed 316. **Oregon School Law and System of Education.** 2 hours any term.  
Analysis of the Oregon School System and of the laws on which the system is based. Problems of Oregon schools, plans proposed for their solution, and trends in educational development in the state. Required for teacher's certificate in Oregon. Laber, Nelson, Oliver. Fall: Cleveland High School, Room 214; Winter: Jefferson High School, Room 107; Spring: Cleveland High School, Room 214.
- (C) Ed 351. **Health Education.** 2 hours fall or winter.  
Teaching of health education with emphasis on the health knowledge, health attitudes, and health habits of school children, and the development of a health-service program. Special study of the state health-education program. Logan. *Monday night, fall*, Lincoln High School; *Winter*: Jefferson High School, Room 108.
- (C) Ed 408. **Methods and Research Materials: Art (Primary Art Education).** (G) 2 hours winter.  
Problems and methods in selecting and organizing materials for teaching primary art education. Emphasis for graduate students will be placed upon recent research and literature dealing with instructional materials, methods, and facilities, including the completion of a special project. Halvorsen. Holladay School.
- (C) Ed 408. **Methods and Research Materials: Physical and Health Education.** (G) 2 hours fall or spring.  
Problems and methods in selecting and organizing materials for teaching physical and health education. Emphasis for graduate students will be placed upon recent research and literature dealing with instructional materials, methods, and facilities, including the completion of a special project. Jenne. Fall: Jefferson High School, Room 6; Spring: Jefferson High School, Room 6.
- (C) Ed 408. **Methods and Research Materials: Arithmetic (Elementary School Arithmetic).** (G) 2 hours winter.  
Problems and methods in selecting and organizing materials for teaching elementary school mathematics. Emphasis for graduate students will be placed upon recent research and literature dealing with instructional materials, methods, and facilities, including the completion of a special project. Hoel. Arithmetic Laboratory, Administration Building.
- (C) Ed 408. **Methods and Research Materials: Music (Primary Music).** (G) 2 hours fall.  
Problems and methods in selecting and organizing materials for teaching primary music. Emphasis for graduate students will be placed upon recent research and literature dealing with instructional materials, methods, and facilities, including the completion of a special project. Wilson. Cleveland High School, Room 108.
- (C) Ed 408. **Methods and Research Materials: Music (Intermediate Music.)** (G) 2 hours fall.  
Problems and methods in selecting and organizing materials for teaching inter-

mediate music. Emphasis for graduate students will be placed upon recent research and literature dealing with instructional materials, methods, and facilities, including the completion of a special project. Ernst. Jefferson High School, Room 7.

- (S) Ed 408. **Methods and Materials (Arts and Crafts)**. 2 hours fall or winter. Problems and methods in selecting and organizing materials for instruction; comparison and evaluation of methods, laboratory techniques, supplies, equipment; economy of time and materials. Henriksen. Glenhaven School.
- (C) (U) (S) Ed 435. **Audio-Visual Aids**. (G) 2 hours winter. The development and use of audio-visual aids in education. Emphasis on actual learning situations in which radio, recordings, films, slides, pictures, maps, charts, etc., are utilized. Sources of materials and equipment; administration of audio-visual program. Limited to 20. Department of Instrumental Materials, Administration Building.
- (U) Ed 455. **Primary-Education Workshop**. (G) 2 hours fall or winter. Theory and unit construction for kindergarten and primary grades. Discussion, individual projects, and research problems. Hamilton and others. Mr. Hamilton's office, Administration Building.
- (U) Ed 457. **Intermediate-Education Workshop**. (G) 2 hours fall or winter. Methods of teaching social studies and language arts at the intermediate level; preparation of materials; lectures and individual projects; research problems. Hamilton and others. Mr. Hamilton's office, Administration Building.
- (U) Ed 462. **Psychology of Exceptional Children**. (G) 2 hours fall. Survey of characteristics and problems of all types of exceptional children, with special emphasis on those with sensory handicaps; consideration of essential educational adaptations. Keats. Jefferson High School, Room 107.
- (C) Ed 468. **Diagnostic and Remedial Instruction in Reading**. (G) 2 hours fall. Opportunities for experienced teachers to consider the typical causes of difficulty in the reading program and to evaluate procedures to be used in remedial classes by means of lectures, demonstrations, readings, and case studies. Bentall. Cleveland High School, Room 221.
- (G) Ed 478. **Improvement of Instruction in Reading**. (G) 2 hours fall. Intensive study of the classroom teacher's responsibility in the teaching of reading in the elementary grades. General plan developed for teaching children of a given grade as a unit. Attention directed to the smaller groups which compose the unit, such as: the mentally and scholastically retarded; the neglected and unadjusted; children with physical handicaps. Stress will be placed on readiness at each level, the use of phonics, children's interest, selection of material, diagnostic and remedial procedures for classroom use. Zollinger. Cleveland High School.
- (C) (S) Ed 485. **Principles and Practices of Guidance Services**. (G) 2 hours winter. Overview of guidance and personnel work. Attention given to vocational, educational, health, social, personality, recreational, and other aspects of individual development. Participation of teachers, counselors, administrators, parents, and community organizations in a program of guidance. For all teachers and administrators. Students specializing in guidance should begin with this course. Prerequisite: senior standing. Dobson. Psychometric Laboratory, 220 N.E. Beech Street.
- (G) Ed 493. **Utilization of Regional Resources**. (G) 2 hours fall. Study of the imbalances of modern life presenting problems to which education

must address itself; the need for a new unit of human association larger than the community and state, and smaller than the nation; the achieving of a balance and coordination of all natural and human resources out of which we create the greatest possible human satisfactions; study of available materials in the field of conservation of resources. Individual projects and reports. Department of Industrial Materials, Administration Building.

- (C) H 358. **First Aid**. 2 hours fall or spring. First aid for emergency treatment of injuries, with emphasis on the use of knowledge as applied in everyday life and in school situations. Red Cross certificates are given. Hicks. Fall: Cleveland High School, Room 203; Spring: Lincoln High School.
- (U) Hst 377. **Oregon History**. 2 hours any term. Brief survey of the building of civilization in the Oregon country. Required for teacher's certificate in Oregon. Childers, Jones, Trenholme, York, Smith. Fall: Jefferson High School, Room 108; Winter: Cleveland High School, Room 220; Spring: Jefferson High School, Room 108.
- (U) Mth 499. **Foundations of Mathematics**. (g) 2 hours fall. This course is designed for teachers of high school mathematics. It will be of interest to both majors and non-majors in mathematics. Hoel. Lincoln High School.

### Graduate Course

- (S) Ed 507. **Seminar: Science**. 2 hours any term. A problem in science will be selected by the group and the problem-solving approach used. Materials will be available and teachers can work on an aspect of the problem at their level of teaching. Stotler. Fall and Spring: *Tuesday night*; Winter: *Thursday night*. Science Laboratory, Administration Building.

### Engineering

Professors: Holcomb, Popovich, Sheely, Starr  
Assistant Professors: Clayton, Smith  
Instructor: Greiling

#### Lower-Division Courses

- (S) GE 101, 102, 103. **Engineering Problems**. 2 hours each term. Lectures and elementary problems dealing with the general fields of civil, electrical, industrial, and mechanical engineering to train the student in engineering habits of work. One lecture; 2 two-hour computation periods. Greiling. Tuesday, 6:45-9:25.
- (S) GE 121, 122. **Engineering Drawing**. 3 hours each term, fall and winter. Fundamentals of graphic composition with particular emphasis on reading and interpretation of line drawings, charts and diagrams. Smith. Monday and Wednesday, 6:45-9:25.

#### Upper-Division and Graduate Courses

- (S) CE 351, 352. **Strength of Materials**. 3 hours each term, fall and winter. General principles of mechanics applied to the elements of engineering structures to determine their strength and fitness. Prerequisite: CE 212 or ME 212, Mth 203, or consent of instructor. Clayton. Wednesday, 6:45-9:25.

- (S) CE 405. **Reading and Conference (Steel Design)**. 2 hours each term, fall and winter. Holcomb. Tuesday, 7:15-9:00.
- (S) EE 405, 505. **Reading and Conference**. Subjects and hours to be announced.
- (S) IE 405, 505. **Reading and Conference**. Subjects and hours to be announced.
- (S) ME 405, 505. **Reading and Conference**. Subjects and hours to be announced.

## English

Professor: Powers

Associate Professors: Collier, Franchere, Henkle, Oliver

Assistant Professors: Bierman, Dahlstrom, Litchfield

## Literature

### Lower-Division Courses

- (S) (U) (C) Eng 101, 102, 103. **Survey of English Literature**. 3 hours each term.  
From Beowulf to the present. Fall: Beowulf to Milton; Winter: Milton to Byron; Spring: Byron to the present. Franchere. Thursday, 6:45-9:25.
- (C) Eng 107, 108, 109. **World Literature**. 3 hours each term.  
A sequence in narrative prose, drama, and poetry. Complete books are studied so that the student may be familiar with some of the masterpieces in Western world literature. Litchfield. Saturday. 9:15-11:55 a.m.
- (C) Eng 120. **Essentials of Speech I**. 3 hours fall.  
Course to give the student opportunity to develop poise and confidence in speech and to organize and present material effectively. Monday, 6:45-9:25.
- (U) Eng 201, 202, 203. **Shakespeare**. 3 hours each term.  
Study of the important plays, comedies, histories, and tragedies. Required for majors. Franchere. Wednesday, 6:45-9:25.
- (U) Eng 261, 262, 263. **Survey of American Literature**. 3 hours each term.  
American literature from its beginning to the present day. Two consecutive terms required to satisfy the high-school teaching-field requirement. Oliver. Tuesday, 6:45-9:25.

### Upper-Division Courses

- (C) Eng 388. **Children's Literature**. 3 hours fall.  
Acquaintance with, and appreciation of, the great body of literature belonging to the elementary-school program. Investigations in the field of children's interests in reading and in grade placement of types and pieces of literature. Henkle. Friday, 6:45-9:25.
- (U) Eng 391, 392, 393. **American Novel**. 3 hours each term.  
Development of the American novel from its beginnings to the present. Oliver. Monday, 6:45-9:25.
- (U) Eng 405. **Reading and Conference**. Hours to be arranged. Staff.

- (U) Eng 428. **Chaucer**. (C) 3 hours fall.  
As much of Chaucer's work read as time permits. Required for graduate students in English. Franchere. Tuesday, 6:45-9:25.
- (U) Eng 436. **Advanced Shakespeare**. (C) 3 hours winter.  
Intensive study of several plays, with primary emphasis on textual problems and sources. Prerequisite: year sequence in Shakespeare or consent of instructor. Bierman, Tuesday, 6:45-9:25.
- (U) Eng 490, 491, 492. **Development of the English Language**. (C) 3 hours each term.  
The English language from Old English through Middle English to the present day. Vocabulary, inflection, syntax, and phonetics. Dahlstrom. Wednesday, 6:45-9:25.

### Graduate Courses

- (U) Eng 505. **Reading and Conference**. Hours to be arranged. Staff.
- (U) Ed 507. **Seminar: Teaching of High-School English**. Franchere. 3 hours winter.  
(See EDUCATION)

## Writing

### Lower-Division Courses

- (U) Wr 111, 112, 113. **English Composition**. 3 hours each term.  
The fundamentals of English composition and rhetoric; frequent written themes. Special attention to correctness in fundamentals and to the organization of papers. 6:45-9:25.
- Fall:* Wr 111. Collier. Monday.  
Wr 111. Oliver. Thursday.
- Winter:* Wr 112. Oliver. Thursday.  
Wr 112. Collier. Monday.
- Spring:* Wr 113. Collier. Monday.  
Wr 113. Oliver. Thursday.
- (S) Eng 211. **Vocabulary Building**. 3 hours winter.  
Methods of building individual vocabulary; analysis of words; meaning in context. Designed to increase reading comprehension and effective use of language. Collier. Thursday, 6:45-9:25.
- (U) Wr 214. **Business English**. 3 hours fall or spring.  
Study of modern practices in business correspondence, primarily for students of business administration. Analysis and writing of the principal types of correspondence. Prerequisite: Wr 111, 112, 113. Collier. Thursday, 6:45-9:25.
- Upper-Division Course*
- (U) Wr 311. **English Composition for Teachers**. 3 hours fall.  
For students expecting to teach English in high school. Practice in writing and a review of the rules of composition. Required for satisfaction of the high-school teaching-field requirement in English. Prerequisite: Wr 111, 112, 113. Litchfield. Tuesday, 6:45-9:25.
- (U) Wr 324, 325, 326. **Short-Story Writing**. 2 hours each term.  
For students interested in creative writing, or in professional writing for magazines. Prerequisite: consent of instructor. Wednesday, 7:15-9:00.

- (G) Wr 354, 355, 356. **Advanced Creative Writing**. 2 hours each term.  
Writing in the various forms to provide increased ease, certainty, and force in written expression. A continuation, with emphasis on effectiveness and craftsmanship, for those who have taken lower-division courses in rhetoric. Prerequisite: consent of instructor. Tuesday, 7:15-9:00.
- (G) Wr 04, 05, 06. **Writers' Laboratory**. No credit, three terms.  
Advanced noncredit course for exploring regional subject matter for fiction and other imaginative forms, and non-fiction, in all lengths. Practice in processing material to meet modern publishing requirements. Market studies; experiments; conferences, forums, lectures. Monday, 7:15-9:00.

## Foreign Languages

Instructors: Beattie, Eaton, Herman, Krivoshein

### French

#### Lower-Division Courses

- (U) RL 1a, 1b, 2a. **First-Year French (First Course)**. 2 hours each term.  
Provides an introduction to grammar and practice in reading modern prose; considerable practice in pronunciation and opportunity for understanding the spoken language. Beattie. Monday, 7:15-9:00.
- (U) RL 2b, 3a, 3b. **First-Year French (Second Course)**. 2 hours each term.  
Reviews and extends the knowledge of grammatical principles and the irregular verbs. Exercise in pronunciation and study of idioms used in conversational French. Reading of simple texts and sight work to develop in the student ability to read easy French without recourse to English. Beattie. Tuesday, 7:15-9:00.

#### Upper-Division Courses

- (U) RL 314, 315, 316. **Intermediate French Composition and Conversation**. 2 hours each term.  
Exercises in pronunciation, comprehension, and composition. Ample opportunity for conversation. Prerequisite: two years of college French or equivalent. Conducted in French. Beattie. Wednesday, 7:15-9:00.

### German

#### Lower-Division Courses

- (U) GL 1a, 1b, 2a. **First-Year German (First Course)**. 2 hours each term.  
Provides a thorough grammatical foundation and an elementary reading knowledge of German, as well as an understanding of the spoken language. Eaton. Tuesday, 7:15-9:00.
- (U) GL 2b, 3a, 3b. **First-Year German (Second Course)**. 2 hours each term.  
This course extends the study of grammar. Translation of prose and poetry; conversation and composition. Eaton. Thursday, 7:15-9:00.

### Russian

#### Lower-Division Courses

- (U) SL 11a, 11b, 12a. **First-Year Russian (First Course)**. 2 hours each term.  
Reading of simple prose with adequate study of grammar for reading comprehension. Krivoshein. Monday, 7:15-9:00.

## Spanish

### Lower-Division Courses

- (U) RL 11a, 11b, 12a. **First-Year Spanish (First Course)**. 2 hours each term.  
Provides an introduction to grammar and practice in reading modern prose; considerable practice in pronunciation and opportunity for understanding the spoken language. Herman. Monday, 7:15-9:00.

## General Science

(See SCIENCE)

## General Studies

Portland State Extension Center Advisers: Dr. James C. Caughlan and Dr. Henry E. Stevens  
University Committee: Dr. W. J. Dixon, Chairman  
State College Committee: Dr. E. A. Yunker, Chairman

### Graduate Courses

- GSt 501. **Research in General Studies**. Terms and hours to be arranged.
- GSt 503. **Graduate Thesis**. Terms and hours to be arranged.

## Geography

Associate Professor: Hopson  
Instructors: Dart, Newhouse

### Lower-Division Courses

- (U) Geog 105, 106, 107. **Introductory Geography**. 3 hours each term.  
A general introduction to the field of geography, in sequence as follows: Geog 105, physical elements; Geog 106, earth resources; Geog 107, cultural elements. Newhouse. Tuesday, 6:45-9:25.
- (U) Geog 219, 220. **Cartography**. 3 hours each term, fall and winter.  
Study and practice of map making and map projection. Use of aerial photographs. Comparative study of different types used in the United States and in other countries. Dart. Thursday, 6:45-9:25.

### Upper-Division Courses

- (U) Geog 316. **Geomorphology**. 3 hours winter.  
Systematic study of land forms in their relation to the cultural landscape. Prerequisite: Geog 105, 106, 107 or Geol 101, 102, 103 or consent of instructor. Hopson. Wednesday, 6:45-9:25.
- (U) Geog 317. **Geomorphology of the United States**. 3 hours spring.  
Continuation of Geog 316. Detailed study of the geomorphology of the United States. Hopson. Wednesday, 6:45-9:25.
- (U) Geog 323. **Geography of the Pacific Northwest (Oregon)**. 3 hours spring.  
A study of the land forms, climates, population, resources, products, and lines of communication of the Pacific Northwest. Dart. Thursday, 6:45-9:25.
- (U) Geog 427. **Geography of the Soviet Union**. (G) 3 hours fall.  
Regional geography of the Soviet Union; its resources, peoples, and world position. Prerequisite: Geog 105, 106, 107 or Geog 201, 202, 203 or consent of instructor. Newhouse. Monday, 6:45-9:25.

- (U) Geog 431. **Geography of Asia.** (G) 3 hours winter.  
Physical geography of the continent; the main economic, social, and political problems viewed in relation to geography. Prerequisite: Geog 105, 106, 107 or Geog 201, 202, 203 or consent of instructor. Newhouse. Monday, 6:45-9:25.
- (U) Geog 433. **Geography of Middle America.** (G) 3 hours spring.  
Regional geography of Mexico, Central America, and the islands of the Caribbean. Prerequisite: Geog 105, 106, 107 or Geog 201, 202, 203 or consent of instructor. Newhouse. Monday, 6:45-9:25.

## Geology

Instructor: Mason

### Lower-Division Courses

- (S) G 201, 202, 203. **Geology.** 3 hours each term.  
Processes of nature by which earth's surface has been built up, deformed, and torn down; natural history and occurrence of common rocks and useful minerals; outline of history of earth and life. Monday, 6:45-9:25.

### Upper-Division Courses

- (S) G 350. **Rocks and Minerals.** 3 hours fall.  
This course gives opportunity to become acquainted with rocks and minerals without having to meet the requirements of the more technical courses. Especially useful to students expecting to teach general science. Prerequisite: upper-division standing. Tuesday, 6:45-9:25.
- (S) G 352. **Geology of Oregon.** 3 hours winter.  
Affords opportunity to obtain a general knowledge of the geology of the state without having to meet the technical requirements imposed for a professional geology major. Tuesday, 6:45-9:25.

## Health and Physical Education

Professor: Haar  
Assistant Professors: Ager, Holland, Hudson

### Upper-Division Courses

- (C) PE 350. **Teaching of Major Sports for Boys.** 1 hour fall.  
The seasonal sport is covered with the theory of fundamentals, styles of play, and individual adaptations as to positions, with lectures and discussions covering all phases of the game. Ager. Monday, 7:15-9:00.
- (U) PE 406. **Special Problems: Advanced Dance.** (g) 2 hours fall and winter.  
For men and women. For advanced students. Analysis of materials in terms of the objectives and standards of the Oregon physical-education program. Special emphasis on teaching procedures directed to the achievement of objectives. Prerequisite: consent of instructor. Hudson. Tuesday, 7:15-9:00.
- (U) PE 411, 412, 413. **Physical-Education Workshop.** (g) 3 hours each term.  
A workshop for physical-education teachers in the public schools. Each teacher works out and organizes the complete program for his school in light of the objectives, standards, and purposes of the Oregon physical-education program. Open to men and women. (May be substituted for College of Education Ed 344, Ed 345, Ed 346.) Content of course is as follows:

- (U) PE 411. **Rhythmics and folk dancing.**  
(U) PE 412. **Games of low organization.**  
(U) PE 413. **Individual team sports and games.**  
Hudson. Monday, 6:45-9:25.

- (U) PE 460. **Physical Education in the Elementary School.** (g) 3 hours spring.  
An interpretative study and analysis of the functions, purposes, and practices of physical education at the elementary-school level. The program and the significance of its elements. Hudson. Wednesday, 6:45-9:25.

### Graduate Courses

- (U) PE 506. **Special Problems: Tumbling.** 2 hours spring.  
Haar. Thursday, 7:15-9:00.
- (U) PE 542. **Measurement in Physical Education.** 3 hours winter.  
Testing procedures important in physical education; history, scope, and methods. Prerequisite: PE 540 or consent of instructor. Holland. Thursday, 6:45-9:25.
- (U) PE 553. **Administration of Recreation.** 3 hours spring.  
Organization and administration of recreational programs in recreational districts, communities, and municipalities; legal aspects, sources of funds, types of programs. Holland. Thursday, 6:45-9:25.

## History

Professor: Jonasson  
Associate Professor: Hoffmann  
Assistant Professor: Spurlock  
Instructor: Learned

### Lower-Division Courses

- (C) Hst 101, 102, 103. **History of Western Civilization.** 3 hours each term.  
The development of Western civilization from early beginnings to the present time; political, social, and cultural factors; present conditions and problems. The three terms constitute a sequence but may be taken separately. Spurlock. Thursday, 6:45-9:25.
- (U) Hst 201, 202, 203. **History of the United States.** 3 hours each term.  
From colonial times to the present day. Learned. Wednesday, 6:45-9:25.

### Upper-Division Courses

- (U) Hst 377. **Oregon History.** 2 hours fall or spring.  
Brief survey of the building of civilization in the Oregon Country. Spurlock. Monday, 7:15-9:00.
- (C) Hst 378, 379. **American History and Government.** 3 hours each term, winter and spring.  
A study of the development of the American nation, with emphasis on its political and social concepts. Attention is given to the factual and causal elements entering into the historical growth of the country, to the form and function of its government, and to the adaptations that have been made to changing social and economic conditions. Hst 378 covers the period through the Civil War; Hst 379 since the Civil War. Hoffmann. Tuesday, 6:45-9:25.
- (U) Hst 446. **Recent Germany.** (G) 3 hours fall.  
The German Empire, the republican experiment, 1918-33, the National Socialist regime, World War II and after. Jonasson. Wednesday, 6:45-9:25.

- (U) Hst 448. **Soviet Union.** (G) 3 hours winter.  
The revolution of 1917; Russian domestic and foreign policies from 1917 to the present. Jonasson. Wednesday, 6:45-9:25.
- (U) Hst 469. **Recent England.** (G) 3 hours spring.  
Social, political, economic, and intellectual changes in Great Britain in the twentieth century. Johnasson. Wednesday, 6:45-9:25.
- (U) Hst 473, 474. **American Foreign Relations.** (G) 3 hours each term, winter and spring.  
The relations of the United States with other powers; the development of American foreign policies. Thursday, 6:45-9:25.
- (U) Hst 477. **History of the Pacific Northwest.** (G) 3 hours winter.  
Detailed study of the building of civilization in the Pacific Northwest. Required for graduate students planning to present theses in Oregon history. Prerequisite: Hst 201, 202, or consent of instructor. Spurlock. Tuesday, 6:45-9:25.
- (U) Hst 478. **History of Political Parties in the United States.** (G) 3 hours fall.  
Origin and history of political parties; issues, policies; changes in methods of nomination; presidential campaigns, minor parties. Prerequisite: 9 hours in United States history or consent of instructor. Thursday, 6:45-9:25.

## Home Economics

Assistant Professor: Wasson.

### Lower-Division Course:

- (S) AA 178. **House Planning and Architectural Drawing.** 3 hours fall.  
Monday, 6:45-9:25.

### Upper-Division Courses

- (S) CT 331. **Home Furnishing.** 3 hours winter.  
Furnishing a small home from standpoint of comfort, beauty, and economy; influence of historic design. Prerequisite: CT 212, 250, AA 161, 178, or consent of instructor. Monday, 6:45-9:25.
- (S) CT 431. **Home Furnishing.** (G) 3 hours spring.  
Consumer study of home furnishing, fabrics, furniture, rugs, china, silver and ceramics. Particular attention paid to contemporary designers and materials and to prices and manufacturers. Prerequisite: CT 331, or consent of instructor. Monday, 6:45-9:25.

## Horticulture

Professor Emeritus: Bouquet

### Lower-Division Course

- (S) Hrt 111. **Elements of Horticulture.** 2 hours winter.  
Lectures, discussions, and demonstrations dealing with horticultural crops about the home—vegetables, small fruits, tree fruits, and flowers. Emphasis on principles and fundamentals of growth, propagation, soil management, garden planning, soil fertility, pest control, irrigation. Special problems concerned with important crops. Greenhouse and frame management in gardening. Demonstrations during class meetings. Tuesday, 7:15-9:00.

### Upper-Division Course

- (S) Hrt 341. **Vegetable and Small Fruit Production.** 3 hours spring.  
Problems of general vegetable production; soils, fertilizers, irrigation, seeds, plants, crop rotation; disease and insect control. Tuesday, 6:45-9:25.

## Journalism

Associate Professor: Price.  
Assistant Professor: Deutschmann  
Instructor: Judkins

### Lower-Division Courses

- (S) J 111, 112. **Elementary Journalism.** 3 hours each term, fall and winter.  
Journalistic style of writing; workings of the press, both general and technical. Judkins. Monday, 6:45-9:25.
- (U) J 211. **Introduction to Journalism.** 3 hours spring.  
An introduction to the newspaper and other media of mass communication, including news, editorial, pictorial, business, and advertising aspects. No prerequisite. Judkins. Monday, 6:45-9:25.

### Upper-Division Courses

- (U) J 339. **Principles of Advertising.** 3 hours fall.  
Advertising as a factor in the distributive process; the advertising agency; the "campaign"; the function of research and testing; the selection of media—newspapers, magazines, broadcasting, outdoor advertising, direct mail. Deutschmann. Thursday, 6:45-9:25.
- (U) J 428. **History of Journalism.** (G) 3 hours spring.  
A study of the changing character of the newspaper, with emphasis on the contributions of outstanding editors, publishers, and inventors. The evolution of freedom of the press, editorial and business standards, mechanics, and advertising practices. Price. Thursday, 6:45-9:25.

## Landscape Architecture

Associate Professors: Martel, Solberg  
Instructor: Gerke

### Lower-Division Course

- (S) LA 279. **Home-Ground Planning.** 2 hours fall.  
The principles of good design in home grounds; arrangement of the site for modern living, adapted particularly to this locality. Relationship between house and garden, space uses, study of materials which are used in garden development—plants, pavings, masonry, wood. Gerke. Tuesday, 7:15-9:00.

### Upper-Division Courses

- (S) LA 326. **Plant Materials.** 3 hours winter.  
Trees, shrubs, vines, and perennials and their uses in plant composition. Martel. Tuesday, 6:45-9:25.
- (S) LA 359. **Maintenance and Construction.** 3 hours spring.  
Maintenance of private and public landscapes; construction of landscape features and structures. Prerequisite: LA 279 or consent of instructor. Solberg. Tuesday, 6:45-9:25.



## Mathematics

Instructor: Buschman.

### Lower-Division Courses

- (U) Mth 10. **Elements of Algebra.** 3 hours fall.  
For students entering with less than one year of elementary algebra. Open to others only on recommendation of the department. May not be taken for credit after completion of other courses in college mathematics. Buschman. Wednesday, 6:45-9:25.
- (U) Mth 20. **Elements of Plane and Solid Geometry.** 2 hours winter.  
For students entering with less than one year of high-school geometry. Buschman. Wednesday, 7:15-9:00.
- (U) Mth 100. **Intermediate Algebra.** 4 hours spring.  
Prerequisite: one year of high-school algebra. Buschman. Wednesday and Friday, 7:15-9:00.
- (S) (U) Mth 101, 102, 103. **Elementary Analysis.** 4 hours each term.  
Trigonometry, graphs, algebra, elements of calculus, and analytic geometry. Tuesday and Thursday, 7:15-9:00.

## Music

Associate Professor: Stehn

Instructors: Albertson, Ernst

### Lower-Division Courses

- (U) Mus 111, 112, 113. **Theory I.** 2 hours each term.  
Thorough groundwork in the elements of musical science—melodic, harmonic, and rhythmic. Major and minor chords, keys, scales, intervals, and cadences studied in singing, writing, playing, and dictation. Stehn. Monday, 7:15-9:00.
- (U) Mus 127, 128, 129. **Introduction to Music Literature (Appreciation of Music).** 2 hours each term.  
A nontechnical study of the development of music, stressing the elements of musical understanding; study of representative compositions, with emphasis on their musical and historical significance. Ernst. Tuesday, 7:15-9:00.
- (U) Mus 196. **Orchestra.** 1 hour any term.  
No-grade course. Six hours maximum credit. Stehn. Wednesday, 7:15-9:00.
- (C) Mus 281. **Music I. Introductory Course in Music.** 3 hours fall.  
A musical background for the elementary grade teachers; singing varied types of song literature; acquiring good vocal habits; reading music; experiencing simple problems in rhythm; listening to music, analyzing its forms; learning keys, scales, intervals, primary chords, and their application to the piano keyboard. Albertson. Thursday, 6:45-9:25.
- (C) Mus 282. **Music II. Music Reading and Ear Training.** 3 hours winter.  
Acquiring more skill in reading song material; more advanced rhythmic patterns; major and minor modes; two-, three-, and four-part music; chording; ear training; dictation. Albertson. Thursday, 6:45-9:25.
- (C) Mus 283. **Music III. Music Education.** 3 hours fall or winter.  
The close relationship between music education and other areas in education;

planning a musical environment; directing the experiences of children in music; studying principles and procedures in teaching music skills. Albertson. Friday, 6:45-9:25.

### Graduate Course

- (U) Mus 533. **Music in the Elementary School.** 3 hours spring.  
Philosophy, supervision, curriculum, materials, and procedures of music teaching in the elementary school. Research in problems involving music and related areas of instruction. Albertson. Thursday, 6:45-9:25.

## Nursing Education

Associate Professor: Gregerson

### Upper-Division Course

- (U) Nur 427. **Methods of Clinical Instruction.** (G) 3 hours winter.  
Consideration will be given to planning and developing a program of clinical instruction, and to the methods of evaluating student achievement in clinical nursing practice. Tuesday, 6:45-9:25.

## Physical Education

(See HEALTH AND PHYSICAL EDUCATION)

## Physiology

(See SCIENCE)

## Political Science

Professor: Wengert

Assistant Professor: Nagy

Instructors: Dixon, Kroll.

### Upper-Division Courses

- (U) PS 314, 315, 316. **Problems of State and Local Government.** 3 hours each term.  
A study of the major problems in the organization and function of state, county, city, and other local governments, with special attention to Oregon. Dixon. Monday, 6:45-9:25.
- (U) PS 320, 321. **World Politics.** 3 hours each term, fall and winter.  
Basic principles of the modern state system; analysis of factors making for conflict and cooperation. Emphasis, during second term, on the foreign policies of the leading states, exclusive of the United States. Nagy. Thursday, 6:45-9:25.
- (U) PS 407. **Seminar: The Politics of Administration.** 3 hours any term.  
Problems of the interrelationships of public administration and political dynamics in the formulation of public policies and the conduct of administrative programs will be explored in state and Federal natural resources administration, public education, municipal administration and other areas of interest. Staff. Wednesday, 6:45-9:25.
- (U) PS 411, 412. **Introduction to Public Administration.** (G) 3 hours each term, fall and winter.  
Study of the organization and activities of government in carrying out public

policy, with special reference to the Federal government and to the government of Oregon. Kroll. Wednesday, 6:45-9:25.

- (U) PS 419, 420. **International Organization.** (G) 3 hours each term, fall and winter.

A survey and analysis of the development of public international organization, with chief emphasis on the United Nations and its affiliated organizations; consideration of the leading problems of the United Nations; international administration. Nagy. Wednesday, 6:45-9:25.

- (U) PS 421. **International Law.** (G) 3 hours spring.

Introduction to international public law. Forces influencing its development; the nature and sources of international law; codification; the International Court of Justice. Rules of international law respecting more important subjects. Nagy. Wednesday, 6:45-9:25.

- (U) PS 483. **The Executive in American Government.** (G) 3 hours spring.

Study of the executive branch in American government, with particular emphasis on the part played by the executive, and agencies attached to it, in legislative and judicial matters. Wengert. Thursday, 6:45-9:25.

- (U) PS 490. **Principles of Political Science.** (G) 3 hours spring.

A comprehensive course dealing with the principles underlying all aspects of the study of politics and administration. Designed to assist advanced political science majors to integrate and evaluate the facts and principles presented in their previous studies in the field. Kroll. Wednesday, 6:45-9:25.

#### *Graduate Courses*

- (U) PS 505. **Reading and Conference.** Hours to be arranged.

- (U) PS 507. **Seminar.** Hours to be arranged.

### **Psychology**

Professors: Sherburne, Clinton  
Associate Professors: Bernard, Courts  
Assistant Professor: Wilcox  
Instructor: Boyd

#### *Lower-Division Courses*

- (U) Psy 201, 202. **General Psychology.** 3 hours each term.

Introductory study of behavior and conscious processes. Survey of experimental studies with reference to motivation, learning, thinking, perceiving, and individual differences. 6:45-9:25.

*Fall:* Psy 201. (Section I). Wilcox. Monday.  
Psy 201. (Section II). Wilcox. Wednesday.

*Winter:* Psy 201. Wilcox. Monday.  
Psy 202. Wilcox. Wednesday.

*Spring:* Psy 201. Boyd. Monday.  
Psy 202. Wilcox. Tuesday.

- (U) Psy 205. **Applied Psychology.** 3 hours spring.

A survey of the ways in which psychology is applied in advertising, salesmanship, market research, measurement of opinion, occupational placement, development of personal efficiency. Prerequisite: Psy 201, 202. Wilcox. Monday, 6:45-9:25.

- (C) Psy 261. **Child Growth and Development.** 3 hours winter.

Consideration of the child as an individual and as a member of social groups. Included is a study of the kinds of home and school environment essential to the best intellectual, physical, and emotional development of the child. Boyd. Wednesday, 6:45-9:25.

#### *Upper-Division Courses*

- (U) Psy 411. **Psychology of Infancy and Childhood.** (G) 3 hours winter.

Growth of behavior during the prenatal period, infancy, and childhood. Development of muscular activities, perception, emotional adjustment, intelligence, language, and social behavior in childhood. Not open to students who have completed Ed 460. Bernard. Thursday, 6:45-9:25.

- (U) Psy 412. **Psychology of Adolescence.** (G) 3 hours winter.

Study of the behavior changes during pre-adolescence, adolescence, maturity, and old age. Intended to follow Psy 411. Not open to students who have completed Ed 461. Bernard. Tuesday, 6:45-9:25.

- Psy 433. **Mental-Testing Laboratory.** (G) 3 hours fall.

Supervised practice in the administration and scoring of individual and group intelligence tests and various tests of achievement, special aptitude, and personality. Boyd. Monday, 6:45-9:25.

- (S) Psy 471, 472, 473. **Individual Differences.** (g) 3 hours each term.

Theories in regard to individual differences; experimental evidence; importance in personal, educational, and social adjustments; guiding and directing normal development. Prerequisite: Psy 203 or Psy 207, 208, or consent of instructor. First two terms may be taken independently; the third term must be preceded by both the others. Sherburne. Monday, 6:45-9:25.

#### *Graduate Courses*

- (C) Psy 515. **Statistical Methods in Education and Psychology.** 3 hours fall.

Statistical methods in education and psychology commonly used in the treatment of collective data. Attention given to their practical usage by the teacher in test construction and interpretation, pupil guidance, and the interpretation of research reports. Clinton. Tuesday, 6:45-9:25.

- (U) Psy 521, 522, 523. **Systematic Psychology.** 2 hours each term.

Contemporary systems: Gestalt psychology, purposive behaviorism, topological psychology, psychoanalysis, etc. Aims of psychology, nature of explanation, and functions of abstractions in psychology. Courts. Thursday, 7:15-9:00.

### **Public Health**

Professor: Weinzirl

#### *Graduate Course*

- (U) PH 511. **Principles of Public Health.** 3 hours winter.

A general survey of personal and community hygiene. Topics considered are: immunization, medicine, surgery, food, carriers, cleanliness, isolation, disinfection, temperature, humidity, ventilation, lighting, clothing, exercise, public-health organization. Thursday, 6:45-9:25.

## Public Speaking

(See SPEECH)

## Science

### Bacteriology

Instructor: Pennington

#### Upper-Division Course

(G) Bac 348, 349, 350. **Microbiology and Communicable Diseases.** 2 hours each term.

A study of microorganisms and their relation to human infectious disease. Tuesday, 7:15-9:00.

### Botany

Instructor: Pierson

#### Lower-Division Courses

(S) Bot 201, 202. **General Botany.** 3 hours each term, fall and winter. How plants get their food, grow, differentiate, and reproduce. Monday and Wednesday, 7:15-9:00.

(S) Bot 203. **Field Botany.** 3 hours spring. Introductory taxonomy and ecology of native flowering plants. Monday and Wednesday, 7:15-9:00.

(U) Bi 204, 205, 206. **General Botany.** 3 hours each term. A study of the fundamental principles of plant biology. Monday and Wednesday, 7:15-9:00.

### Chemistry

Assistant Professor: Johnson

#### Lower-Division Courses

(S) Ch 104, 105, 106. **General Chemistry.** 4 hours each term. Standard first-year college chemistry. Prerequisite: adequate background in mathematics. Lecture: Wednesday, 6:45-8:45. Laboratory: Thursday, 6:30-10:30.

### General Science

Associate Professors: Hopson, Lange

Assistant Professor: Winchell

Instructor: Payne

#### Lower Division Courses

(C) Sc 101, 102, 103. **Biological Science Survey.** 3 hours each term. Place of man in relation to other forms of life, with particular reference to heredity, nervous systems, organic evolution; importance of animal and plant forms as sources of food, shelter, clothing, and medicines, and as sources of disease. Winchell. Lecture, Monday, 6:45-8:45. Laboratory, Thursday, 6:45-8:45.

(C) Sc 201, 202, 203. **Foundations of Physical Science.** 3 hours each term.

A course in the elements of the branches of physical science, i.e., astronomy, chemistry, geology, meteorology, and physics. Study of the development of these fields from their earliest historical beginnings to their present-day position and effects on society. Particular emphasis is placed on the development of scientific attitudes. Two lectures; 1 two-hour laboratory period. Payne. Monday, 6:45-9:25.

#### Upper-Division Courses

(S) GS 421, 422, 423. **Classics of Science.** (G) 2 hours each term.

Works notable in the development of science, studied for (1) significance to science and (2) form; biographies of men of science studied as background. Prerequisite: eighteen hours of upper-division science, or equivalent. Lange. Monday, 7:15-9:00.

(S) NR 427, 428, 429. **Natural Resources of United States.** (G) 3 hours each term.

Present utilization and problems, potential development. Fall: land, soil, and water resources. Winter: resources of the seas and natural vegetation. Spring: mineral resources. Prerequisite: two years upper-division science including GS 461, 462, 463 or equivalent. Hopson. Thursday, 6:45-9:25.

### Physics

Instructors: Culbertson, Heller

#### Lower-Division Courses

(S) Ph 161. **Rudiments of Photography.** 2 hours spring.

Planned for beginners in photography. The topics covered include cameras, printing, enlarging; developing, composition, materials, and lighting. Opportunities for field trips and print clinics will be provided. Culbertson. Tuesday, 7:15-9:00.

(S) Ph 201, 202, 203. **General Physics.** 4 hours each term.

Standard first-year college physics. Mechanics, sound, heat, light, electricity, and magnetism. Prerequisite: adequate background in mathematics. Heller. Lecture and recitation, Monday, 6:45-9:25. Laboratory, Wednesday, 7:00-9:00.

### Physiology

#### Upper-Division Courses

(G) Phy 411p, 412p, 413p. **Human Physiology.** 2 hours each term.

A study of the function of the various tissues, organs, and systems of the human body. Fall: blood, heart, circulation, and respiration. Winter: digestive system, metabolism, kidney, and endocrine system. Spring: brain and spinal cord, nerve and muscle, and special senses. Prerequisite: high-school chemistry or its equivalent. Thursday, 7:15-9:00.

### Zoology

Associate Professor: Nacnab

#### Upper-Division Courses

(S) Z 341. **Genetics.** 3 hours winter.

Lectures on the principles of heredity and their application to agriculture, medicine, and human eugenics; nature of gene action; genetics and evolution. Prerequisite: Z 200 or Z 203, or consent of instructor. Tuesday, 6:45-9:25.

**(S) Z 345. Evolution.** 3 hours fall.

Evidences of evolution from comparative anatomy, embryology, physiology, geographic distribution, and paleontology; genetic mechanisms involved; natural selection. Prerequisites: Z 341 or consent of instructor. Tuesday, 6:45-9:25.

**(S) Z 456. Parasites of Man.** (G) 3 hours spring.

Identification, bionomics, prophylaxis, treatment and geographic distribution of the parasites of man. Prerequisite: two years of biology. Laboratory periods to be arranged. Tuesday, 6:45-9:25.

**Sociology**

Associate Professor: Parks  
Instructors: Drum, Iverson

*Lower-Division Course***(U) Soc 204, 205, 206. General Sociology.** 3 hours each term.

The basic findings of sociology concerning the individual, culture, group life, social institutions, and factors of social change. Prerequisite: sophomore standing or consent of instructor. Parks. Tuesday, 6:45-9:25.

*Upper-Division Courses***(U) Soc 334, 335. Social Psychology.** 3 hours each term, winter and spring.

Analysis of the psychological and sociological processes involved in personality formation and in various forms of group behavior. Particular attention to origin, function, ideologies, membership, and leadership. Prerequisite: Soc 204, Soc 205, or Psy 201, Psy 202. Parks. Tuesday, 3:45-6:25.

**(U) Soc 338. Marriage and the Family.** 3 hours any term.

The role of the family in the development of personality. Mate selection and courtship; marital discord and adjustment. Prerequisite: general sociology or general psychology. Drum. Tuesday, 6:45-9:25.

**(U) Soc 346. Social Case Methods Applied to Nursing.** 3 hours winter.

History and current concepts of case-work theory; social problems related to illness; principles of interviewing; relationship between nurses and social workers. Iverson. Monday, 6:45-9:25.

**(U) Soc 407, 507. Seminar: Social Welfare Resources and Organization.** 3 hours spring.

The various types of social welfare resources which the nurse can use to help patients with social problems; methods of organizing these resources for the meeting of human needs. Madison. Wednesday, 6:45-9:25. (Substitute for Soc 347.)

**(U) Soc 407. Seminar.** Hours to be arranged. Madison.**(U) Soc 415. Criminology.** (G) 3 hours fall.

The nature of crime, with reference to causative factors. Prerequisite: Soc 204, Soc 205, or Psy 201, Psy 202, or consent of instructor. Drum. Wednesday, 6:45-9:25.

**(U) Soc 416. Penology.** (G) 3 hours winter.

Theories underlying punishment; the role of the police and the courts; history of punishment and recent penal developments. Prerequisite: Soc 204, Soc 205, or Psy 201, Psy 202, or consent of instructor. Drum. Wednesday, 6:45-9:25.

**(U) Soc 417. Juvenile Delinquency.** (G) 3 hours spring.

Nature and extent of delinquent behavior; contributing factors; current preventive and treatment programs. Prerequisite: general sociology or general psychology. Drum. Wednesday, 6:45-9:25.

**(U) Soc 437. Sociology of Race Relations.** (G) 3 hours fall.

The development of "race consciousness" and emergent problems of race-culture contacts. Prerequisite: introductory course in sociology, anthropology, or psychology. Parks. Tuesday, 3:45-6:25.

*Graduate Course***(U) Soc 507. Seminar.** Terms and hours to be arranged.**Graduate Courses in Social Work****(U) SW 507. Seminar.** Terms and hours to be arranged.**(U) SW 511, 512. Social Case Work.** 3 hours each term, fall and winter.

Generic concepts of case work practices in different agency settings; diagnosis and analysis of cases, treatment problems. Tuesday, 4:00-6:00 and as arranged.

**(U) SW 516. Personality Development.** 2 hours fall.

The growth of the individual with emphasis on emotional factors; the integration of psychiatric theory with case work; social factors that influence development; special lectures and case studies. Wednesday, 7:15-9:00.

**(U) SW 517. Personality Development.** 2 hours winter.

Emotional problems commonly met in social agencies; the roles of the psychiatrist and caseworker in the study and treatment of the patient; special lectures and case studies. Prerequisite: SW 516 or consent of instructor. Wednesday, 7:15-9:00.

**(U) SW 572. Community Organization for Social Welfare.** 3 hours spring.

Problems involved in bringing about an adjustment between social welfare needs and resources; understanding the social forces of the community; methods used by public and private agencies to meet these needs; interpretation of agency problems to the community. Wednesday, 6:45-9:25.

**(U) SW 580. Introduction to Public Welfare.** 3 hours fall.

History, philosophy and current theories of social welfare work; development of public and voluntary programs of social services. Monday, 6:45-9:25.

**(U) SW 582. Administration of Social Insurances.** 3 hours winter.

The social insurance movement in the United States and selected foreign countries. Present legislation; administrative problems in unemployment compensation and in insurance for the aged, survivors, disabled, and sick. Prerequisite: SW 580. Monday, 6:45-9:25.

**(U) SW 584. Public Assistance: Policy and Method.** 3 hours spring.

Financial aid under the poor laws, emergency relief, modern public assistance and social insurance programs; characteristics of state and federal assistance and social insurance laws; grants-in-aid; public institutional services; adult probation and parole; vocational rehabilitation services. Monday, 6:45-9:25.

## Speech

Associate Professor: Collier  
Assistant Professor: Clifford

### Lower-Division Courses

- (U) Sp 111, 112, 113. **Fundamentals of Speech.** 3 hours each term.  
Projects in extempore speaking. Primary emphasis on content and organization, with attention also to the student's adjustment to the speaking situation, effective delivery, audience motivation, and language of the speech. Monday, 6:45-9:25.
- (U) Sp 221. **Public Discussion.** 2 hours spring.  
Preparation of speeches for delivery before public audiences. Collier. Friday, 7:15-9:00.
- (G) Sp 225, 226. **Public Speaking for Business and Professional Men and Women.** 2 hours each term, fall and winter.  
A practical course in actual speaking. Poise on the floor; improvement of diction and voice; organization of speech material and presentation in direct conversational style. Persuasion in speaking; sales talks. Study of motives that impel men to action and ways of reaching these motives. Collier. Friday, 7:15-9:00.

### Upper-Division Courses

- (U) Sp 367. **Production of School and Community Plays.** 3 hours fall.  
Designed primarily to familiarize teachers with the elementary problems of play production. Clifford. Tuesday, 6:45-9:25.
- (U) Sp 411. **Speech for the Classroom Teacher.** 3 hours winter.  
Instruction in speech and speech forms designed for classroom use. Required for English majors who intend to teach but open to all prospective teachers. Tuesday, 6:45-9:25.
- (U) Sp 481. **Speech Defects and Disorders.** (G) 3 hours spring.  
Symptoms and causes of speech abnormalities; emphasis on diagnosis and basic pathology of articulatory defects and delayed speech, with discussion of methods of treatment limited to general principles. Tuesday, 6:45-9:25.

## Zoology

(See SCIENCE)

## General Extension Division

### Administration

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Dean and Director, General Extension Division; Director of Summer Sessions; Professor of Education.

**VIRON ALONZO MOORE, M.S.**  
Assistant Dean, General Extension Division; Associate Professor of Education.

**JAMES CARL CAUGHLAN, Ph.D.**  
Assistant Dean, General Extension Division; Professor of Education.

**JEAN P. BLACK, Ph.D.**  
Librarian, General Extension Division; Associate Professor of History.

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**HOWARD IMPECOVEN, D.Ed.**  
Registrar.

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**LOUIS F. JUDKINS, B.J.**  
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**Department of State-Wide Services**

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**STEPHEN E. EPLER, Ph.D.**

Director of Day Program; Professor of Education.

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Director of Women's Programs; Instructor in Radio Speech.

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**SHELDON GOLDSTEIN, B.A.**

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**ROBERT C. HINZ, B.A.**

News Editor and Announcer; Instructor in Radio Speech.

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Music Director and Announcer; Assistant Professor.

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Announcer; Instructor in Radio Education.

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Program Assistant; Instructor in Radio Education.

**D. GLENN STARLIN, Ph.D.**

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**DUANE E. TUCKER, M.A.**

School Specialist in Radio Education and Announcer; Assistant Professor of Radio Speech.

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**CHARLES VAN HENKLE, A.B.**

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**HENRY CLAY RUARK, B.S.**

Instructor in Visual Instruction.

**Portland Summer Session****JAMES CARL CAUGHLAN, Ph.D.**

Director; Professor of Education.

**THELMA O. BAIRD**

Secretary of Summer Sessions.

**High School-College Relations****E. DEAN ANDERSON, M.A.**

Executive Secretary, Assistant Professor of Education.



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	Term Expires
FRANK VAN DYKE, Medford.....	1953
HENRY F. CABELL, Portland.....	1954
EDGAR W. SMITH, Portland.....	1955
A. S. GRANT, Baker.....	1956
GEORGE F. CHAMBERS, Salem.....	1957
CHERYL S. MACNAUGHTON, Portland.....	1957
HERMAN OLIVER, John Day.....	1958
LEIF S. FINSETH, Dallas.....	1958
R. E. KLEINSORGE, Silverton.....	1959

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R. E. KLEINSORGE.....	Vice-President

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EDGAR W. SMITH	LEIF S. FINSETH
R. E. KLEINSORGE	

—————  
 CHARLES D. BYRNE, Chancellor  
 Secretary of the Board  
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Office of the State Board of Higher Education  
 Eugene, Oregon

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