



General Extension Division

BULLETIN

Eugene, Oregon

Vanport Extension Center

Portland, Oregon

Oregon State System of Higher Education

CATALOG
I S S U E
1950-51

General Extension Division

Bulletin

No. 6, July 31, 1950

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***Vanport
Extension
Center***

**CATALOG
1950-51**

Telephone: UNiversity 1605

Portland 3, Oregon

Offering courses of

University of Oregon

Oregon State College

Oregon College of Education

Southern Oregon College of Education

Eastern Oregon College of Education

General Extension Division

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Vanport Extension Center

1950

September

S	M	T	W	T	F	S
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24	25	26	27	28	29	30

October

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November

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December

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31						

January—1951

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February

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Academic Calendar

Fall Term 1950-51

September 16 and 18, *Saturday* and *Monday*
Placement examinations for beginning freshmen.

September 19-20, *Tuesday* and *Wednesday*
Registration for former Vanport students.

September 21-23, *Thursday* to *Saturday*
Registration for freshmen and students entering Vanport for the first time.

September 25, *Monday*
Classes begin.

October 7, *Saturday*
Last day for new registrations, for addition of new courses, or for dropping of courses without being responsible for grades.

October 28, *Saturday*
Last day for withdrawing from college without being responsible for grades.

November 23-26, *Thursday* to *Sunday*
Thanksgiving recess.

December 11-16, *Monday* to *Saturday*
Fall term examinations.

December 16, *Saturday*
Fall term ends.

Winter Term 1950-51

January 2, *Tuesday*
Registration.

January 3, *Wednesday*
Classes begin.

January 16, *Tuesday*
Last day for new registrations, for addition of new courses, or for dropping of courses without being responsible for grades.

February 3, *Saturday*
Last day for withdrawing from college without being responsible for grades.

Vanport Extension Center

1951

March 12-17, *Monday to Saturday*

Winter term examinations.

March 17, *Saturday*

Winter term ends.

March

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25	26	27	28	29	30	31

Spring Term 1950-51

March 26, *Monday*

Registration.

March 27, *Tuesday*

Classes begin.

April 9, *Monday*

Last day for new registrations, for addition of new courses, or for dropping of courses without being responsible for grades.

April 28, *Saturday*

Last day for withdrawing from college without being responsible for grades.

May 30, *Wednesday*

Memorial Day, holiday.

June 4-8, *Monday to Friday*

Spring term examinations.

June 9, *Saturday*

Spring term ends.

April

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May

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June

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July

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22	23	24	25	26	27	28
29	30	31				

Summer Session 1951

June 18, *Monday*

Registration.

August 10, *Friday*

Summer session ends.

August

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26	27	28	29	30	31	

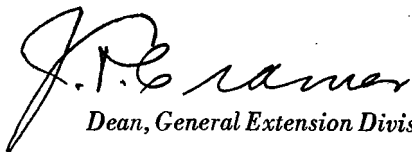
Dean's Message

The purpose of this book is to help those making decisions about which college to attend and what courses to take. For those who choose Vanport it is designed to aid them in beginning their college career, as well as to assist former students in continuing their work. Vanport offers two years of university and college level work. Now, more than ever, our state and nation need college-trained citizens. The Vanport Extension Center brings college opportunities to the largest metropolitan area in the state. Here high-school graduates may prepare themselves for better positions, to have a greater part in building the Northwest.

Vanport is a state-supported college program with low costs, where superior students, including many who otherwise could not afford a college education, may attend college and live at home. Studies have shown that a tax-supported college in a community greatly increases the number of capable high-school graduates in the area who may go on to college, not only from the lower economic groups but the higher income groups as well.

Excellent classrooms and laboratory equipment are provided, as well as library and recreational facilities. The Center's interest in the individual student reaches beyond the classroom to provide personal, educational, and vocational guidance.

The instructional program is integrated as much as possible with the cultural resources of the city of Portland to provide superior educational opportunities. The Center, through its educational program, strives to provide the students with the high-quality service which has long been the tradition of the institutions of the Oregon State System of Higher Education.



J. P. Sawyer

Dean, General Extension Division

Vanport Extension Center

Oregon State System of Higher Education

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General Information

What is the Vanport Extension Center?

The Center brings to Portland much of the first two years of college and university work offered by the State System through the University of Oregon, Oregon State College, and the colleges of education. Its purpose is to make available to those living in the Portland area the educational opportunities of the State System of Higher Education. The name Vanport is derived from Vancouver and Portland and was the name given to the wartime housing project located between these two cities on the Oregon side of the river. The campus was located in this housing project and remained there until May, 1948, when the project and campus were destroyed by the Columbia River flood.

What are the advantages of attending Vanport?

The advantages vary for different students. To many students a center such as Vanport in their own community, where they can live at home, is the difference between attending and not attending college. The employment opportunities in a metropolitan area are an important factor to other students. The individual attention and the interest taken by the faculty in the students appeal to all students. Many parents like to have their children attend college and live at home until they reach greater maturity. Other students like living at home where they can continue being part of the same groups—church, club, and other organizations. The two-year feature appeals to those students who do not plan a four-year college course but desire courses useful for the profession they intend to follow. 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.

Is Vanport a state school?

Yes, the school receives support from the state of Oregon and is under the supervision and control of the Oregon State Board of Higher Education. It is part of the General Extension Division which has the function of extending higher education throughout the state. The motto of the Division is: "*The State is the Campus.*"

Is Vanport an accredited school?

Yes, the courses taken at Vanport count as residence credit when transferred to the University of Oregon, Oregon State College, or the colleges of education. Students transferring to institutions of higher learning outside the state are eligible for the same credit had they attended any other state institution of higher learning in Oregon.

Is Vanport a permanent or a temporary program?

The 1949 Oregon Legislature passed a law providing that the Center become a permanent lower-division extension center in Multnomah County. This was the result of the continuing need for the Center, which began in 1946 as a temporary program set up primarily to provide college and housing facilities for returning veterans. Each succeeding year the State Board authorized the continuance of the program for another year. The 1949 law made the Center a permanent part of the Oregon State System of Higher Education.

Why is Vanport called "The Friendly College"?

A large college often operates like a cold, impersonal machine, treating students as so much raw material. The faculty and staff at Vanport take a personal interest in the students. The student and his needs are the reason for the college's existence. The friendly attitude of students towards each other and the absence of racial and religious discriminations have earned for Vanport the title of "The Friendly College."

What fields and courses are offered at Vanport?

A wide range of fields is available to Vanport students. The law passed in 1949, making Vanport a permanent part of the State System of Higher Education, provided that Vanport may 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 Oregon colleges of education and such other courses and curricula as are deemed advisable by the State Board of Higher Education." A student may take two years of work in many of the professional fields included in the Oregon State System offerings. The range of courses runs from algebra and art to typing and zoology. Professional fields include business administration, business and technology, liberal arts, elementary education, prelaw, science, social science, pre-engineering, preforestry, prenursing, and prepharmacy. Fields of a

terminal nature include secretarial science and courses for dental and medical assistants. Students should refer to the explanation of specific courses in this book. Students who are not sure if work is offered in the field of their choice should write or call the Center office.

What courses are offered that may be completed in two years or less?

Many students desire to take terminal courses that will prepare them for work after one or two years in college. A two-year course in general engineering is offered which prepares students for such positions as engineering aide and draftsman. Other terminal courses are offered in the business and secretarial-science fields. For more information, see the section of the catalog which gives recommended courses for major fields.

What kind of a campus has Vanport?

The main building of the Center is the former administration building of the Oregon Shipbuilding Corporation, which has been remodeled to provide classrooms and laboratories. This modern building, erected in 1944 and purchased by the state in 1950, is an attractive, functional structure. Part of the physical-education and athletics program is housed in near-by buildings. A parking lot on two sides of the building is more than adequate. The facilities of metropolitan Portland have been drawn upon to complete the campus. Swimming classes use the Northeast Branch Y.M.C.A. pool, girls' physical education and varsity basketball have been held in the new modern gymnasium of the St. Johns Community Center, and engineering shop classes have been held in Benson Polytechnic High School. Vanport concentrates on freshman and sophomore work, and its equipment is selected to fulfill this purpose.

When will the Lincoln High School building be used?

The 1949 Oregon Legislature passed a law appropriating money to purchase the Lincoln High School building at Broadway and Market streets. This building is now used by the Portland Extension Center for night classes but will not be used by the Vanport Extension Center until a new high school is built. It is expected that the Vanport Center classes will begin in this building in the fall of 1951.

What about the Library?

The library is considered one of the most important parts of the Center, and the entire middle wing of the second floor is given over to it. The li-

brary regularly receives 170 periodicals. Its well-selected stock of books includes those most necessary to courses taught as well as the standard reference works. The student body is entitled to use the main Portland Public Library and its branches throughout Multnomah County and also has access to special collections such as that of the Oregon Historical Society. Books are secured as needed from other libraries of the State System and from the State Library at Salem through interlibrary loans.

Is there an athletics and physical-education program?

The Center athletics program includes the major sports, football, basketball, baseball, track, and wrestling, and minor sports such as golf, skiing, tennis, and swimming. Freshmen are permitted to play on varsity teams. After one or two years of participation, a student may transfer to a four-year college and be eligible to participate immediately. The varsity "V" is awarded to those who qualify in the major or minor sports, and lettermen's sweaters are awarded in major sports.

The intramural program includes baseball, tennis, gymnastics, golf, and other sports. Intramural sports and physical education are available for women as well as men.

Are there club and social programs?

Cocurricular activities are recognized as an important part of the college program. Club activities and social programs are carried on by the students for the students with a minimum of faculty direction. Student affairs are under the direction of the Student Council elected by the students. The Interclub Council, made up of students, coordinates club activities. All school dances, parties, and other entertainments are part of the cocurricular program. All women students become members of the Associated Women Students, which sponsors a program suited to their interests.

Are there any student publications at Vanport?

The students publish a weekly newspaper, the *Vanguard*, and a yearbook, the *Viking*. Students interested in writing and journalism may become members of the staffs of these two publications.

May students take military training while enrolled at Vanport?

Yes, the United States Naval Reserve maintains an excellent armory at Swan Island. Young men interested in this program, who can qualify, may

join the Naval Reserve and drill for two hours, one night a week. Those in training receive pay and may advance to higher positions. Students are also eligible for the Reserve Officers Candidate program through which they may become officers in the Naval Reserve. This is open only to men attending college who are also members of the Naval Reserve. Those enrolled take two summer cruises of six weeks' duration and upon college graduation receive the commission as Ensign, U.S.N.R. Students are paid for their cruises as well as for the weekly drills. For further information write: U.S. Naval Reserve, Swan Island, Portland 11, Oregon.

The U. S. Army and Air Force also maintain training units in the Portland area. Students may join the National Guard, which drills for two hours one night a week, and then take R.O.T.C. later on at college or join Reserve units which meet at Vancouver Barracks and drill normally every week. Students interested in the U. S. Air Force may join air corps training units, which are based at the Portland airport. Training is usually done on week ends. For further information on the Army and Air Force, write: Organized Reserve Corps, 225 U. S. Court House, Portland, Oregon.

What is the cost of attending Vanport?

Registration and other fees total \$36.00 for a term (three months). The cost for a school year (three terms) is \$108.00. Students who are not residents of Oregon must pay an additional nonresident fee. The average student spends about \$50 per year for textbooks and classroom supplies. Living costs vary with the student. Most Vanport students live at home and save the cost of living in a dormitory or boarding house. Transportation costs may be reduced by riding the buses or forming ride clubs. For a complete list of fees and refunds, see page 23.

What scholarships are available?

The Oregon State System of Higher Education awards a limited number of scholarships annually. Students attending Vanport, as well as those in the other state colleges, are eligible for these scholarships, which cover course and laboratory fees. This amounts to \$81 per academic year for the recipient. At least 50 per cent of the scholarships are reserved for entering freshmen. To be eligible, a freshman must rank in the upper third of his graduating class; a student who has previously attended an institution of higher learning must have a grade-point average of 2.50. Scholarships are awarded only to students in need of financial assistance. Application should be made on an official blank, which may be secured from the Director, Vanport Extension Center.

Is there a student co-operative?

The Student Co-operative Store provides texts, school supplies, and other articles needed by students. The store is run on a nonprofit basis and is open Monday through Friday from 9 A.M. to 5 P.M. Most of the employees of the store are students working on a part-time basis. The store is an example of the initiative and resourcefulness of the Vanport students. It was started in the fall of 1946 by a few students who formed a food-buying club to increase the purchasing power of their subsistence checks. Membership is restricted to students and employees of the Vanport Extension Center. The Co-operative also operates a cafeteria and soda fountain.

Are loans available for students?

The Vanport Student Co-operative maintains a loan fund to assist students who need short-term loans. A general loan fund, made possible by gifts from many sources, is also available for short-term loans. Both loan funds are administered by a faculty committee which authorizes the loans.

Are living accommodations available?

No dormitories are maintained by the Center. A housing bureau is available to assist single and married students in finding housing accommodations. In addition to helping find private housing and rooms in private homes, the Center works closely with the Portland Housing Authority, which has furnished and unfurnished apartments and houses located near the campus.

Parents of minor students should supervise or arrange for proper supervision of housing. The Center cannot assume this responsibility.

What should a student wear to school?

The majority of students dress simply and unpretentiously at Vanport. Young women dress in simple dresses or sports skirts with blouses or sweaters. Young men usually wear cords or slacks with shirts and sweaters.

May part-time students attend?

Part-time students are permitted to attend. However, the Center is primarily for full-time students. Most part-time students find it more advantageous to attend the Portland Extension Center night classes. A catalog of the Portland Extension Center will be sent on request.

What provisions are made for veterans?

Vanport is approved by the Veterans Administration for training of veter-

ans under P.L. 346, commonly known as the G. I. Bill of Rights, and P.L. 16, which is especially for disabled veterans. The state of Oregon also has a plan for giving assistance to veterans in college. Veterans interested should ask for additional information from the Veterans Administration, 208 S. W. Fifth Avenue (telephone, ATwater 9131) or State Department of Veterans Affairs, 416 S. W. Eleventh Avenue (telephone, ATwater 6376).

How is application for admission made?

1. Send in application blank, which may be secured by writing to:

Director, Vanport Extension Center
Oregon State System of Higher Education
Portland 3, Oregon
(Telephone, UNiversity 1605)

2. Request the high school from which you graduated and any college which you have attended to send your official records to the Vanport Extension Center.

How does one reach the campus?

Look at the map on the inside back cover. By bus, take the St. Johns or Killingsworth bus to Philadelphia Street near the north approach of the St. Johns Bridge. Transfer to a Fessenden bus or ride the college shuttle bus which runs a regular schedule when classes are in session. Those unfamiliar with the campus may find it simpler, although more time-consuming, to take a St. Johns Woods or Fessenden bus from down-town Portland to the campus. By car from the west side of Portland, take Highway 30 to the St. Johns Bridge, cross the bridge, turn left on Jersey and continue out Burgard to the Center. From the east side of Portland, take Swift Boulevard to the Center or take Lombard to St. Johns, then continue via Jersey and Burgard streets. Numerous street signs help the motorist to find the way.

When is registration?

Students register during the first few days of each term. Students are urged to register before classes begin in order that no work may be missed. Those who register early have greater choice of courses and sections. However, permission may be granted to register any time during the first two weeks of a quarter. Students should see the Calendar in this book for registration dates.

Are entrance examinations given?

Examinations are not given to determine eligibility for entrance. However, placement and other examinations are required which enable faculty counselors to plan for students courses suited to their needs and desires. Each student who has not completed a college English composition course of at least one term must take a placement examination to ascertain whether or not he needs a review course. Each student entering mathematics is given an examination for the purpose of determining with which course in mathematics it is best for him to start. Other tests are given which indicate the student's aptitudes and abilities.

What guidance is given new students?

Faculty counselors give advice on academic matters such as selection of courses and requirements for a student's chosen field. The Men's Adviser or Women's Adviser helps students with both academic and personal problems. The Men's Adviser also has charge of the student employment service which assists students in finding part-time jobs.

When does one select a major field?

Many students select their major field before entering college. Others complete a year or more of college work and take a variety of courses to find out where their interests lie. Students may change their majors as their college experience reveals new horizons. Most students not sure of their interests sign up as liberal arts majors, since subjects in this field are helpful in general development, and many of the courses are required for entrance into professional schools.

How does one become a member of groups and organizations?

Vanport students find many clubs and organizations from which to choose. Organizations with charter restrictions against race, creed, or color are not permitted. Vanport takes pride in the democratic spirit of its students and organizations. Students interested in any club or organization should consult the faculty sponsor or a club member to learn how to join. Each year students form new organizations. The Student Council may grant a charter to a new group.

Fees and Refunds

Fees are payable at the time of registration. The Oregon State System of Higher Education reserves the right to change the schedule of fees and refunds without notice. Registration is not complete until all fees are paid. Checks should be drawn to the order of the Vanport Extension Center. Students are held responsible for knowledge of fees and dates of payment.

<i>Fees</i>	<i>Per Term</i>	<i>Per Academic Year</i>
Tuition	None	None
Incidental and Laboratory Fee	\$ 36.00	\$108.00
Total for Oregon residents	36.00	108.00
Total for nonresidents (who pay an additional nonresident fee of \$70.00 per term)	\$106.00	\$318.00
Part-Time Fee (for students registering for 6 term hours or less)	\$5.00 per term hour, with a minimum of \$10.00	

Special Fees and Fines

Late-Registration Fee, per day	\$1.00
Change-of-Program Fee (assessable after last day to add courses)	1.00
Reinstatement Fee	2.00
Transcript Fee (one furnished without cost)	1.00

Deposits

All persons who enroll for academic credit (except staff members) must make a deposit of \$5.00 payable once each year at the time of first registration. This is required as a protection against loss or damage of institutional property such as: dormitory equipment, laboratory equipment, library books, locker keys. If at any time charges against this deposit become excessive, the student may be called upon to re-establish the original amount.

Fee Refunds

Students who withdraw from the Vanport Extension Center and who have complied with the regulations governing withdrawals are entitled to certain refunds of fees paid, depending on the time of withdrawal. The refund schedule has been established by the State Board of Higher Education and is on file in the Center office. All refunds are subject to the following regulations:

(1) Any claim for refund must be made in writing before the close of the term in which the claim originated.

(2) Refunds in all cases are calculated from the date of application for refund and not from the date when the student ceases attending classes, except in unusual cases when withdrawal has been delayed through causes largely beyond the control of the student.

Nonresident Fee

REGULATIONS REGARDING NONRESIDENT FEE: The Oregon State Board of Higher Education has defined a nonresident student as a person who comes into Oregon from another state for the purpose of attending one of the institutions under the control of the Board.

In order to draw a clear line between resident and nonresident students, the Board has ordered that all students in the institutions under its control who have not lived in Oregon for more than one year immediately preceding the day of their first enrollment in the institution shall be termed nonresident students, with the following exceptions:

(1) Students whose father (or mother, if the father is not living) is domiciled in the state of Oregon.

(2) Children of regular employees of the federal government stationed in the state of Oregon.

Academic Regulations

Who is eligible to enter Vanport?

ADMISSION: In order to be admitted to Vanport Extension Center, a student must be of good moral character, and if he plans to work for a degree he must present evidence of acceptable preparation for work at the college level.

A person applying for admission to freshman standing must submit a record of his high-school work on an official application form. Copies of this form may be obtained from high-school principals or from the director of Vanport Extension Center. This record must be certified by the principal or superintendent of the applicant's school. A person applying for admission with advanced standing must submit a certified transcript of previous college work (and a record of high-school work if this is not included on the college transcript).

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. The requirements are:

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; and 2 units selected from the fields of natural science and mathematics or the field of foreign language. Two units in either natural science or mathematics or 1 unit in each of these subjects will be acceptable, but a minimum of 2 units in a single language will be required if a foreign language is selected. 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 his 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.

How is the academic year divided?

The academic year is divided into three terms of approximately three months each. The summer session supplements the work of the regular year. Students may enter at the beginning of any term or summer session.

What is meant by "term," "grade point," etc.?

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 the 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 in this catalog or in the separately published SCHEDULE.

A GRADE is a mark used to measure the quality of a student's work in an academic course (the four passing grades are: A, B, C, D).

A GRADE POINT is a numerical system of computing the quality of a student's work. High grades give more points than low grades. A 4.00 grade-point average denotes a straight A record. A 2.00 grade-point average is a C average.

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

How are the courses numbered?

Courses are numbered as follows:

1-99. Courses in the first two years of foreign language, or other courses of similar grade.

100-110, 200-210. Survey or foundation courses that satisfy the lower-division group requirements in the language and literature, science, and social-science groups.

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

300-399. Upper-division courses.

The letter (C) following a course number shows it is a college of education course; (E), a General Extension Division course; (S), an Oregon State College course; (U), a University of Oregon course.

What is the grading system?

The grading system consists of: four passing grades, A, B, C, D; failure, F; incomplete, I; withdrawal, W. The grade of A denotes exceptional accomplishment; B, superior; C, average; D, inferior. Students ordinarily receive one of the four passing grades or F, failure. When the quality of the work is satisfactory, and some minor but essential requirement of the course has not been completed, for reasons acceptable to the instructor, a report of I may be made and additional time granted. Students may withdraw from a course by filing the proper blanks at the office in accordance

with Vanport Extension Center regulations. A student who discontinues attendance in a course without official withdrawal receives a grade of F in the course.

Certain courses are designated "no-grade" courses. Students in these courses are rated "pass" (P) or "not pass" (NP). These courses do not count towards the grade-point average.

How is the grade-point average computed?

Grade points are computed on the basis of 4 points for each term hour of A grade, 3 points for each term hour of B, 2 points for each term hour of C, 1 point for each term hour of D, and 0 points for each term hour of F. Marks of I and W are disregarded in the computation of points. The grade-point average (GPA) is the quotient of total points divided by total term hours in which A, B, C, D, and F are received. Thus, if a student earned 6 hours of A, 3 hours of B, 3 hours of C, and 2 hours of D, his grade-point average is computed as follows:

<i>Grade</i>	<i>Hours</i>	<i>Weight</i>	<i>Grade Points</i>
A	6	4	24
B	3	3	9
C	3	2	6
D	2	1	2
	14		41

$41 \div 14 = 2.93$. The grade-point average is 2.93.

The grade-point average that is used as a standard of acceptable scholarship and as a requirement for graduation 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.

How many credit hours may a student take?

A student usually enrolls for no more than 17 hours; in order to take more than 17 hours, a student must have a grade-point average of 3.00 or better and must secure special permission.

A student must have permission in advance to take courses at other educational institutions. When courses at other colleges are taken without permission, Vanport reserves the right to cancel credits for the subjects of that term.

What happens to a student who makes poor grades?

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 from Vanport Extension Center 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.

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

What are the two-year certificates?

The JUNIOR CERTIFICATE admits to upper-division standing in other institutions of the Oregon State System of Higher Education and the opportunity to pursue a major curriculum leading to a degree. A student may fulfill the requirements for the Junior Certificate during his two years at Vanport Extension Center. The requirements are as follows:

- (1) Term Hours: Minimum, 93.
- (2) Grade-Point Average: Minimum, 2.00.
- (3) English:
 - (a) Freshmen must take and pass a course designated Wr K or Eng R, unless excused on basis of a high rating in the English placement examination required upon entrance.
 - (b) English Composition: 9 term hours, 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 are excused).
- (5) Health Education: HE 250 will satisfy the requirement for men or women (veterans are excused).
- (6) Group Requirements: A prescribed amount of work selected from

three "groups" representing comprehensive fields of knowledge. The three groups are: language and literature, science, social science. Courses that satisfy group requirements are numbered from 100 to 110 and from 200 to 210. The group requirements are as follows:

- (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 one of the three groups.
- (b) In the professional and technical major, the general courses and group requirements are specifically named in the catalog.

Students should study the catalog of the institution to which they plan to transfer to be sure that all of its lower-division requirements are met.

The LOWER-DIVISION CERTIFICATE recognizes the successful completion of two years of lower-division work. This certificate is issued upon request to students whose desire has been to round out their general education. It does not require the scholastic average specified for the Junior Certificate and does not admit to upper-division standing.

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.
 Eng 261, 262, 263. (U) **Survey of American Literature.** 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.** 5 hours each term.

* 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.

Geology

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

Mathematics*

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

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 101, 102, 103. (S) **Human Biology**. 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.

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

† Psy 208, 209, 210 must be taken with Psy 201, 202, 204 or Psy 201, 202, 205 to satisfy the science group requirement at the University of Oregon; psychology does not meet science group requirement at Oregon State College.

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.

Human Geography

- HG 101, 102, 103. (S) **Geography.** 3 hours each term.
- HG 201, 202, 203. (S) **Regional Geography.** 3 hours each term.

Political Science

- PS 201, 202, 203. (U) **American Government.** 3 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.

Sociology

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

Recommended Courses for Major Fields

The following courses are recommended to students interested in the major fields listed. More complete information on the requirements of the basic fields may be obtained by consulting the catalogs of the University of Oregon, Oregon State College, and colleges of education. Titles of these courses and their descriptions may be found in another section of this catalog. For further information on their major fields, students should secure a copy of the catalog directly from the college to which they plan to transfer.

Preagriculture

<i>Freshman Year</i>	Term Hours		
	F	W	S
General Botany—Bi 204, 205 (U)	4	4	..
General Chemistry—Ch 104, 105, 106 (S)	4	4	4
English Composition—Wr 111, 112, 113 (U)	3	3	3
Principles of Economics—Ec 201, 202, 203 (U) .....	..	3	..
Fundamentals of Speech—Sp 111 (S) .....	..	..	3
American Government—PS 201 (U) .....	..	3	..
Physical Education—PE 180 or 190 (U)	1	1	1
Orientation—SSc 111 (C)	1	..	..
Electives	3	..	6
	16	18	17

Preagricultural Engineering*Freshman Year*

	Term Hours		
	F	W	S
Forging and Welding—IE 250 (S).....	..	..	2
General Botany—Bi 204, 205 (U).....	4	4	..
General Chemistry—Ch 104, 105, 106 (S).....	4	4	4
Elementary Analysis—Mth 101, 102, 103 (S).....	4	4	4
Fundamentals of Speech—Sp 111 (U).....	..	..	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	..	..
	17	16	17

Sophomore Year

Plane Surveying—CE 226 (S).....	..	..	3
Engineering Drawing—GE 121, 122 (S).....	3	3	..
Machine Shop Practices—IE 260 (S).....	..	3	..
General Physics—Ph 201, 202 (S).....	4	4	..
Background of Social Science—SSc 101, 102, 103 (U).....	3	3	3
Outlines of Economics—Ec 212 (S).....	..	3	..
Constructive Accounting—BA 111 (U).....	3	..	..
Elementary Journalism—J 211 (U).....	3	..	..
Physical Education—PE 180 or 190 (U).....	1	1	1
Personal Health—HE 250 (U).....	..	..	3
Electives.....	..	..	7
	17	17	17

Biology—Botany*Freshman Year*

General Zoology—Bi 201, 202, 203 (U).....	4	4	4
General Chemistry—Ch 204, 205, 206 (S).....	5	5	5
English Composition—Wr 111, 112, 113 (U).....	3	3	3
Literature or social science group requirement.....	3	3	3
Physical Education—PE 180 or 190 (U).....	1	1	1
Orientation—SSc 111 (C).....	1	..	..
	17	16	16

Sophomore Year

General Botany—Bi 204, 205, 206 (U).....	4	4	4
Mathematics—Mth 101, 102, 103 or Mth 109 (S).....	4	4	4
Literature or social science group requirement.....	3	3	3
Comparative Vertebrate Anatomy—Z 324, 325 (S), and Comparative Vertebrate Embryology—Z 326 (S).....	4	4	4
Physical Education—PE 180 or 190 (U).....	1	1	..
Personal Health—HE 250 (U).....	..	..	3
	16	16	18

Business Administration

(For students who plan to transfer to the University of Oregon.)

Freshman Year

	Term Hours		
	F	W	S
Constructive Accounting—BA 111, 112, 113 (U)	3	3	3
Mathematics—Mth 100 (S), 105 (U), 108 (U)	4	4	4
English Composition—Wr 111, 112, 113 (U)	3	3	3
Group sequence in social science	3	3	3
Appreciation of Literature—Eng 104, 105, 106 (U)	3	3	3
Physical Education—PE 180 or 190 (U)	1	1	1
Orientation—SSc 111 (C)	1	--	--
	18	17	17

Sophomore Year

Elements of Finance—BA 222 (U)	4	--	--
Elements of Marketing—BA 223 (U)	--	4	--
Principles of Economics—Ec 201, 202, 203 (U)	3	3	3
Business English—Wr 214 (U)	3	--	--
Physical Education—PE 180 or 190 (U)	1	1	--
Electives: BA 221 (U), J 211 (U), Sp 121, 122, 123 (U), social science or science	6	9	11
Personal Health—HE 250 (U)	--	--	3
	17	17	17

Business and Technology

(For students who plan to transfer to Oregon State College.)

Freshman Year

Introduction to Business and Industry—BA 111, 112 (S)	3	3	--
Survey of Modern Industry—BA 113 (S)	--	--	3
Mathematics—Mth 104, 105, 106 (S)	3	3	3
Geography—Geog 105, 106, 107 (U)	4	4	4
English Composition—Wr 111, 112, 113 (U)	3	3	3
Physical Education—PE 180 or 190 (U)	1	1	1
Literature and speech or foreign languages	3	3	3
Orientation—SSc 111 (C)	1	--	--
	18	17	17

Sophomore Year

Constructive Accounting—BA 111, 112, 113 (U)	3	3	3
Principles of Economics—Ec 201, 202, 203 (U)	3	3	3
Psychology—Psy 201, 202, 205 (U)	3	3	3
American Government—PS 201 (U)	3	--	--
History of the U. S.—Hst 203 (U)	--	--	3
General Sociology—Soc 212 (S)	--	3	--
Technical minor	3	3	3
Physical Education—PE 180 or 190 (U)	1	1	--
Personal Health—HE 250 (U)	--	--	3
	16	16	18

Chemistry*Freshman Year*

	Term Hours		
	F	W	S
General Chemistry—Ch 204, 205, 206 (S).....	5	5	5
English Composition—Wr 111, 112, 113 (U).....	3	3	3
Elementary Analysis—Mth 101, 102, 103 (S).....	4	4	4
Physical Education—PE 180 or 190 (U).....	1	1	1
Literature or social science group requirement.....	3	3	3
Orientation—SSc 111 (C).....	1	--	--

Sophomore Year

Advanced Qualitative Analysis—Ch 231 (S), Quantitative Analysis—Ch 232, 233 (S).....	5	5	5
General Physics—Ph 201, 202, 203 (S).....	4	4	4
Differential and Integral Calculus—Mth 201, 202, 203 (S).....	4	4	4
Physical Education—PE 180 or 190 (U).....	1	1	--
Literature or social science group requirement.....	3	3	--
Personal Health—HE 250 (U).....	--	--	3
	17	16	16

Predental*Freshman Year*

General Zoology—Bi 201, 202, 203 (U).....	4	4	4
General Chemistry—Ch 204, 205, 206 (S).....	5	5	5
Elementary Analysis—Mth 101, 102, 103 (S).....	4	4	4
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	--	--

Sophomore Year

Organic Chemistry—Ch 226, 227 (S), and Quantitative Analysis—Ch 234 (S).....	5	5	5
General Physics—Ph 201, 202, 203 (S).....	4	4	4
Literature or social science group requirement.....	3	3	3
Zoology elective—Z 324 (S).....	4	--	--
Physical Education—PE 180 or 190 (U).....	1	1	--
Personal Health—HE 250 (U).....	--	--	3
Elective.....	--	4	2
	17	17	17

Elementary Education*Freshman Year*

English Composition—Wr 111, 112, 113 (U).....	3	3	3
Biological Science Survey—GS 101, 102, 103 (S).....	4	4	4
Geography—Geog 105, 106 (U).....	4	4	--
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
Orientation—SSc 111 (C).....	1	--	--
	18	18	18

Sophomore Year

	Term Hours		
	F	W	S
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
	16	16	17

General Engineering

(This is a two-year terminal course 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 101, 102, 103 (S)	3	3	3
Elementary Algebra—Mth 10 (S)	4	--	--
English Composition—Wr 111, 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
	15	18	18

Sophomore Year

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 (S)	--	3	--
Elementary Machine Drafting—GE 213 (S)	--	--	3
Forging and Welding—IE 250 (S)	--	--	2
Plane Surveying—CE 226 (S)	--	--	3
Approved elective	--	--	4
	16	15	16

Chemical, Metallurgical, and Mining Engineering*Common Freshman Year*

	Term Hours		
	F	W	S
General Chemistry—Ch 204, 205, 206 (S)	5	5	5
Engineering Drawing—GE 121, 122 (S)	3	3	..
Elementary Analysis—Mth 101, 102, 103 (S)	4	4	4
English Composition—Eng 111, 112, 113 (S)	3	3	3
Physical Education—PE 180 or 190 (U)	1	1	..
Orientation—SSc 111 (C)	1	..	..
Personal Health—HE 250 (U) .....	..	..	3
	17	16	15

Civil, Electrical, Industrial, and Mechanical Engineering*Common Freshman Year*

Engineering Problems—GE 131, 132, 133 (S)	2	2	2
Engineering Drawing—GE 121, 122 (S)	3	3	..
Elementary Analysis—Mth 101, 102, 103 (S)	4	4	4
Engineering Physics—Ph 101, 102, 103 (S)	3	3	3
English Composition—Wr 111, 112, 113 (S)	3	3	3
*Descriptive Geometry—GE 123 (S) .....	..	..	3
Physical Education—PE 180 or 190 (U)	1	1	1
Orientation—SSc 111 (C)	1	..	..
Personal Health—HE 250 (U) .....	..	..	3
	17	16	19

Civil Engineering*Sophomore Year*

Introduction to Civil Engineering—CE 201, 202, 203 (S)	2	2	2
Plane Surveying—CE 221, 222, 223 (S)	3	3	3
Mechanics—ME 212, 213 (S) .....	..	3	3
Differential and Integral Calculus—Mth 201, 202, 203 (S)	4	4	4
General Chemistry—Ch 104, 105, 106 (S)	4	4	4
Physical Education—PE 180 or 190 (U)	1	1	1
Electives	3	..	..
	17	17	17

Electrical Engineering*Sophomore Year*

Introduction to Electrical Engineering—EE 201, 202, 203 (S)	4	4	4
Differential and Integral Calculus—Mth 201, 202, 203 (S)	4	4	4
General Chemistry—Ch 104, 105, 106 (S)	4	4	4
Plane Surveying—CE 226 (S) .....	..	..	3
American National Government—PS 201 (U)	3	..	..
Social science elective .....	..	..	3
Machine Shop—IE 260 (S) .....	..	2	..
Fundamentals of Speech—Sp 111 (U) .....	..	3	..
Principles of Accounting—BA 111 (U)	3	..	..
Physical Education—PE 180 or 190 (U)	1	1	1
	19	18	19

* Mechanical Engineering students only or election.

Industrial Engineering*Sophomore Year*

	Term Hours		
	F	W	S
Introduction to Scientific Management—IE 290 (S).....	--	--	3
Pattern Making—IE 111 (S).....	3	--	--
Foundry Practices—IE 240 (S).....	2	--	--
Forging and Welding—IE 250 (S).....	--	--	2
Machine Shop Practices—IE 260 (S).....	--	2	--
Descriptive Geometry—GE 123 (S).....	3	--	--
Mechanics (Statics)—ME 212 (S).....	--	3	--
Mechanics (Dynamics)—ME 213 (S).....	--	--	3
Differential and Integral Calculus—Mth 201, 202, 203 (S).....	4	4	4
General Chemistry—Ch 104, 105, 106 (S).....	4	4	4
American National Government—PS 201 (U).....	--	3	--
Physical Education—PE 180 or 190 (U).....	1	1	1
	17	17	17

Mechanical Engineering*Sophomore Year*

Mechanics (Statics)—ME 212 (S) <i>and</i>			
Mechanics (Dynamics)—ME 213 (S).....	--	3	3
Materials of Engineering—ME 216 (S).....	--	--	3
Differential and Integral Calculus—Mth 201, 202, 203 (S).....	4	4	4
Descriptive Geometry—GE 123 (S).....	3	--	--
Foundry Practices—IE 240 (S).....	2	--	--
Machine Shop Practices—IE 260 (S).....	--	2	--
Forging and Welding—IE 250 (S).....	--	--	2
Plane Surveying—CE 226 (S).....	3	--	--
Principles of Accounting—BA 111 (S).....	--	3	--
General Chemistry—Ch 104, 105, 106 (S).....	4	4	4
Introduction to Aeronautics—ME 241 (S) (Elective).....	--	--	--
Physical Education—PE 180 or 190 (U).....	1	1	1
	17	17	17

Preforestry*Freshman Year*

General Forestry—F 111 (S).....	3	--	--
Wood Utilization—FP 210 (S).....	--	3	--
Forest Land Use—F 311 (S).....	--	--	3
Elementary Analysis—Mth 101, 102, 103 (S).....	4	4	4
Biological Science Survey—GS 101 (S).....	4	--	--
Physical Science Survey—GS 105, 106 (S).....	--	4	4
English Composition—Wr 111, 112, 113 (U).....	3	3	3
Engineering Drawing—GE 121 (S).....	--	--	3
Fundamentals of Speech—Sp 111 (U).....	--	3	--
Physical Education—PE 180 or PE 190 (U).....	1	1	1
Orientation—SSc 111 (C).....	1	--	--
	16	18	18

General College

(This is a terminal course completed in two years for students who want a general college course.)

Freshman Year

	Term Hours		
	F	W	S
Backgrounds of Social Science—SSc 101 102, 103 (U)	3	3	3
English Composition—Wr 111, 112, 113 (U)	3	3	3
Orientation—SSc 111 (C)	1	..	..
Personal Health—PE 250 (U) .....	..	3	..
Fundamentals of Speech—Sp 111 (U) .....	..	..	3
Physical or Biological Survey—GS 101, 102, 103 (S) or GS 104, 105, 106 (S)	4	4	4
Physical Education—PE 180 or 190 (U)	1	1	1
Foreign language, art, music or elective	3-4	3-4	2-3
	15-16	17-18	16-17

Sophomore Year

American Government—PS 201, 202, 203 (U)	3	3	3
English Literature—Eng 104, 105, 106 (U) or Eng 107, 108, 109 (C)	3	3	3
Music, art, foreign language or elective	3	3	3
Mathematics, social science, or elective	3-4	3-4	3-4
Typing—SS 121 (S) or elective	3	2	3
Family Relationships—HAd 223 (S) .....	..	2	..
Elective	1	1	1
	16-17	17-18	16-17

Industrial Administration*Freshman Year*

Norm			
Pattern Making—IE 111 (S)	3	..	..
Foundry Practices—IE 240 (S)	2	..	..
Machine Shop Practices—IE 260 (S) .....	..	2	..
Forging and Welding—IE 250 (S) .....	..	2	..
Engineering Drawing—CE 121, 122 (S)	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	..	..
Electives .....	..	..	6
	13	11	10

Metal Industries Option

Freshman-year norm	13	11	10
Mathematics—Mth 100, 101, 109 (S)	4	4	4
Fundamentals of Speech—Sp 111 (U) .....	..	..	3
	17	15	17

Tool Design Option

Freshman-year norm	13	11	10
Elementary Analysis—Mth 101, 102, 103 (S)	4	4	4
Fundamentals of Speech—Sp 111 (U) .....	..	..	3
	17	15	17

	Term Hours		
	F	W	S
Wood Industries Option			
Freshman-year norm.....	13	11	10
Mathematics—Mth 100, 101, 109 (S).....	4	4	4
	17	15	14

Sophomore Year

Norm

General Physics—Ph 201, 202, 203 (S).....	4	4	4
Lower-Division Drawing (Construction)—AA 291 (S).....	--	3	--
Business English—Wr 214 (U).....	--	--	3
American National Government—PS 201 (U).....	3	--	--
Physical Education—PE 180 or 190 (U).....	1	1	--
Personal Health—HE 250 (U).....	--	--	3
	8	8	10

Tool Design Option

Sophomore-year option.....	8	8	10
Introduction to Business and Industry—BA 111, 112 (S).....	3	3	--
Mechanics (Statics)—ME 212 (S).....	--	3	--
Mechanics (Dynamics)—ME 213 (S).....	--	--	3
Differential and Integral Calculus—Mth 201, 202 (S).....	4	4	--
Economic Development of the United States—Ec 215 (S).....	--	--	4
Physical Education—PE 180 or 190 (U).....	1	1	1
	16	19	18

Wood Industries Option

Sophomore-year option.....	8	8	10
Introduction to Business and Industry—BA 111, 112 (S).....	3	3	--
House Planning and Architectural Drawing—AA 178, 179, 180 (S).....	3	3	3
Fundamentals of Speech—Sp 111 (U).....	--	3	--
Materials of Engineering—ME 216 (S).....	--	--	3
Physical Education—PE 180 or 190 (U).....	1	1	1
	15	18	17

Industrial-Arts Education

Freshman Year

Pattern Making—IE 111 (S).....	3	--	--
Foundry Practices—IE 240 (S).....	2	--	--
Forging and Welding—IE 250 (S).....	--	--	2
Machine Shop Practices—IE 260 (S).....	--	2	--
Engineering Drawing—GE 121, 122 (S).....	--	3	3
Group requirement in science group.....	8	8	4
English Composition—Wr 111, 112, 113 (U).....	3	3	3
Descriptive Geometry—GE 123 (S).....	--	--	3
Physical Education—PE 180 or 190 (U).....	1	1	--
Personal Health—HE 250 (U).....	--	--	3
Orientation—SSc 111 (C).....	1	--	--
	18	17	18

Sophomore Year

	Term Hours		
	F	W	S
House Planning and Architectural Drawing—AA 178, 179 (S)	3	3	--
House Planning and Architectural Drawing—AA 180 (S), or Descriptive Geometry—GE 123 (S)	--	--	3
Elective in science group	3	3	3
General Psychology—Psy 201, 202 (U)	3	3	--
Educational Psychology—Ed 312 (C)	--	--	3
Business English—Wr 214 (U), or Elementary Journalism—J 211 (U)	3	--	--
Fundamentals of Speech—Sp 111 (U)	--	3	--
Physical Education—PE 180 or 190 (U)	1	1	1
Technical electives	3	2	3
Elective	--	--	3
	16	15	16

Prelaw*Freshman Year*

American Government—PS 201, 202, 203 (U)	3	3	3
Constructive Accounting—BA 111, 112, 113 (U)	3	3	3
Survey of English Literature—Eng 101, 102, 103 (U)	3	3	3
English Composition—Wr 111, 112, 113 (U)	3	3	3
Physical Education—PE 180 or 190 (U)	1	1	1
English History—Hst 207, 208, 209 (U)	3	3	3
Orientation—SSc 111 (C)	1	--	--
	17	16	16

Sophomore Year

Principles of Economics—Ec 201, 202, 203 (U)	3	3	3
Science or mathematics or literature	4	4	4
General Psychology—Psy 201, 202 (U) ; and Psychology of Adjustment—Psy 204 (U), or Applied Psychology—Psy 205 (U)	3	3	3
Physical Education—PE 180 or 190 (U)	1	1	1
History of the United States—Hst 201, 202, 203 (U)	3	3	3
Personal Health—HE 250 (U)	--	--	3
Elementary Logic—Phl 201, and Problems of Philosophy— Phl 202, or electives	3	3	--
	17	17	17

Liberal Arts*Freshman Year*

Survey of English Literature—Eng 101, 102, 103 (U), or Appreciation of Literature—Eng 104, 105, 106 (U)	3	3	3
Social science group requirement	3	3	3
Science or mathematics group requirement	4	4	4
Foreign language or elective	3	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	--	--
	18	17	17

<i>Sophomore Year</i>	Term Hours		
	F	W	S
Second-year major field	3	3	3
Second-year foreign language or elective	4	4	4
Social science or science electives	4	4	4
Physical Education—PE 180 or 190 (U)	1	1	—
Personal Health—HE 250 (U)	—	—	3
Elective	4	4	3
	16	16	17

Mathematics

Freshman Year

Elementary Analysis—Mth 101, 102, 103 (S)	4	4	4
English Composition—Wr 111, 112, 113 (U)	3	3	3
Physical Education—PE 180 or 190 (U)	1	1	1
Group requirement in literature	3	3	3
Orientation—SSc 111 (C)	1	—	—
Electives	5	5	5
	17	16	16

Sophomore Year

Differential and Integral Calculus—Mth 201, 202, 203 (S)	4	4	4
Group requirement in social science	3	3	3
Physical or biological science	4	4	4
Physical Education—PE 180 or 190 (U)	1	1	—
Personal Health—HE 250 (U)	—	—	3
Electives	3-4	3-4	3-4
	15-16	15-16	17-18

Premedical

Freshman Year

General Zoology—Bi 201, 202, 203 (U)	4	4	4
General Chemistry—Ch 204, 205, 206 (S)	5	5	5
Elementary Analysis—Mth 101, 102, 103 (S)	4	4	4
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	—	—
	18	17	17

Sophomore Year

Comparative Vertebrate Anatomy—Z 324, 325 (S), and Comparative Vertebrate Embryology—Z 326 (S)	4	4	4
Organic Chemistry—Ch 226, 227 (S)	5	5	—
Chemistry—Ch 231, 232, 233 (S) (junior year) or Ch 234 (S)	—	—	5
Literature group requirement	3	3	3
Social science group requirement	3	3	3
Physical Education—PE 180 or 190 (U)	1	1	—
Personal Health—HE 250 (U)	—	—	3
	16	16	18

Medical and Dental Assistants

(This is a terminal course completed in two years.)

	Term Hours		
	F	W	S
<i>Freshman Year</i>			
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—PE 252 (U)	--	--	3
Biological Science Survey—GS 101, 102, 103 (S)	4	4	4
Personal Health—PE 250 (U)	--	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	--	--
	17	16	16
<i>Sophomore Year</i>			
Office Apprenticeship—MD 290 (C)	--	--	4
Office Practice—SS 241 (C)	3	--	--
General Psychology—Psy 201, 202 (U)	3	3	--
Applied Stenography—SS 211, 212, 213 (S)	3	3	3
Business English—Wr 217 (U)	3	--	--
Salesmanship—Mer 238 (C)	--	3	--
Business Law—SS 254 (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
	17	17	17

Merchandising

(This is a terminal course completed in two years.)

<i>Freshman Year</i>			
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
Introduction 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
Electives in psychology, speech, history, American government, or sociology	4	2	4
Orientation—SSc 111 (C)	1	--	--
	17	17	17
<i>Sophomore Year</i>			
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)	--	--	3
Elements of Finance—BA 222 (U)	4	--	--
Mathematics of Business and Industry—Mth 104, 105, 106 (S) or electives	3	3	3
Business English—Wr 214 (U)	3	--	--
Three terms of science or literature	3	3	3

<i>Sophomore Year</i> (continued)	Term Hours		
	F	W	S
Merchandise Apprenticeship—Mer 290 (C) .....	..	3	3
Electives* .....	..	4	2
Prenursing	17	17	17
<i>Freshman Year</i>			
Backgrounds of Nursing—Nur 111 (U)	3	..	..
General Chemistry—Ch 104, 105, 106 (S)	4	4	4
English Composition—Wr 111, 112, 113 (U)	3	3	3
English literature group requirement	3	3	3
General Psychology—Psy 201, 202 (U) .....	..	3	3
Physical Education—PE 180 (U)	1	1	1
Orientation—SSc 111 (C)	1	..	..
Electives, or Wr K and Mth 10.....	..	3	3
<i>Sophomore Year</i>	15	17	17
Principles of Dietetics—HEc 225 (U)	2	..	..
General Zoology—Bi 201, 202 (U)	4	4	..
Psychology of Adjustment—Psy 204 (U) .....	..	3	..
General Sociology—Soc 204, 205 (U)	3	3	..
Physical Education—PE 180 (U)	1	1	..
Electives	6	6	..
Prepharmacy	16	17	..
<i>Freshman Year</i>			
General Chemistry—Ch 204, 205, 206 (S)	5	5	5
General Zoology—Bi 201, 202, 203 (U)	4	4	4
General Sociology—Soc 204, 205, 206 (U) ; or General Psychology— Phy 201, 202 (U), and Psychology of Adjustment—Psy 204 (U) ; or Principles of Economics—Ec 201, 202, 203 (U)	3	3	3
English Composition—Wr 111, 112, 113 (S)	3	3	3
Physical Education—PE 180 or 190 (U)	1	1	1
Orientation—SSc 111 (C)	1	..	..
Personal Health—HE 250 (U) .....	..	..	3
Prephysical Education	17	16	19
<i>Freshman Year</i>			
Physical Education—PE 127, 128, 129 (U)	2	2	2
General Zoology—Bi 201, 202, 203 (U), or Biological Science Survey—GS 101, 102, 103 (S)	4	4	4
Intermediate Algebra—Mth 10 (S)	4	..	..
English Composition—Wr 111, 112, 113 (U)	3	3	3
Orientation—SSc 111 (C)	1	..	..
Electives	2	6	6
	16	15	15

* The following Portland Extension Center courses may be taken with instructor's permission in place of other electives: Advertising—BA 339; Office Management—BA 323; Salesmanship—BA 442; Merchandising—BA 436; Personnel Management—BA 412, 413.

Sophomore Year

	Term Hours		
	F	W	S
Physical Education—PE 227, 228, 229 (U)	2	2	2
General Physics—Ph 201, 202, 203 (S)	4	4	4
General Chemistry—Ch 104, 105 (S)	4	4	..
General Psychology—Psy 201, 202 (U)	3	3	..
Principles of Dietetics—HE 225 (U)	2	..	..
Electives	2	3	10
	17	16	16

Physics*Freshman Year*

Engineering Physics—Ph 101, 102, 103 (S), or General Physics—Ph 201, 202, 203 (S)	3-4	3-4	3-4
Elementary Analysis—Mth 101, 102, 103 (S)	4	4	4
English Composition—Wr 111, 112, 113 (U)	3	3	3
Social science or literature group requirement	3	3	3
Physical Education—PE 180 or 190 (U)	1	1	1
Orientation—SSc 111 (C)	1	..	..
	15-16	14-15	14-15

Sophomore Year

Photography—Ph 361, 362, 363 (S)	3	3	3
Differential and Integral Calculus—Mth 201, 202, 203 (S)	4	4	4
General Chemistry—Ch 104, 105, 106 (S), or Ch 204, 205, 206 (S)	4-5	4-5	4-5
Biological Science Survey—GS 101, 102, 103 (S)	4	4	4
Physical Education—PE 180 or 190 (U) .....	..	1	1
Personal Health—HE 250 (U)	3	..	..
	18-19	16-17	18-19

Secretarial Science

(This is a terminal course 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
Fundamentals of Speech—Sp 111 (S) .....	..	3	..
Physical Education—PE 180 or 190 (U)	1	1	1
Personal Health—HE 250 (U)	3	..	..
Introduction to Business and Industry—BA 111, 112 (S)	3	3	..
Orientation—SSc 111 (C)	1	..	..
Electives .....	..	..	6
	16	15	15

Sophomore Year

	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
Business English—Wr 217 (U).....	3	—	—
Salesmanship—Mer 238 (C).....	—	—	3
History of the United States—Hst 201, 202 (U) <i>or</i> Principles of Economics—Ec 201, 202 (U).....	3	3	3
Physical Education—PE 180 <i>or</i> 190 (U).....	1	1	1
Constructive Accounting—BA 111, 112, 113 (U).....	3	3	3
Elective.....	—	3	—
	16	16	16

One-Year Curriculum in Secretarial Science

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

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 <i>or</i> 190 (U).....	1	1	1
Orientation—SSc 111 (C).....	1	—	—
Personal Health—HE 250 (U).....	—	—	3
Electives.....	3	3	4
	17	16	17

Secretarial Science

(This is the first two years of a four-year course to be completed at Oregon State College.)

Freshman Year

Stenography—SS 111, 112, 113 (S).....	3	3	3
Typing—SS 121, 122, 123 (S).....	2	2	2
Introduction to Business and Technology—BA 111, 112 (S).....	3	3	—
Vocabulary Building—Rht 114 (E).....	—	—	2
English Composition—Wr 111, 112, 113 (U).....	3	3	3
Group requirement in science <i>or</i> language and literature.....	3	3	3
Physical Education—PE 180 <i>or</i> 190 (U).....	1	1	1
Orientation—SSc 111 (C).....	1	—	—
Electives.....	1	2	3
	17	17	17

Sophomore Year

Applied Stenography—SS 211, 212, 213 (S).....	3	3	3
Principles of Economics—Ec 201, 202, 203 (U).....	3	3	3
Principles of Accounting—BA 111, 112, 113 (U).....	3	3	3
History of the United States—Hst 203 (U).....	—	—	3
American Governments—PS 201 (U).....	—	3	—
Business English—Wr 214 (U).....	3	—	—
Social science electives.....	3	3	—
Physical Education—PE 180 <i>or</i> 190 (U).....	1	1	—
Personal Health—HE 250 (U).....	—	—	3
Electives.....	2	2	—
	18	18	15

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 26. The hours indicated following the course title represent the term hours of credit which may be earned. The Vanport Extension Center reserves the right to discontinue any listed course because of insufficient enrollment or other reasons. The courses offered by the Vanport Extension 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.

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 114, 115, 116. (U) **Survey of 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 178. (S) **House Planning and Architectural Drawing.** 3 hours.

Aim is to stimulate appreciation and criticism of domestic architecture. Small house planning and drawing with particular reference to the needs of students in agriculture, engineering, forestry, and 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. Three terms required of all majors as a prerequisite to specialization. Correlated with Survey of Visual Arts (AA 114, 115, 116).

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 the emphasis on creative work. Prerequisite: A 211.

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. Prerequisite: AA 195. Special sections for nonmajor students, for whom AA 195 is not prerequisite.

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 (6 hours for nonmajors). Prerequisite: AA 195.

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.

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

Bac 230. (S) Principles of Bacteriology. 3 hours.

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

Biology

(See BOTANY and ZOOLOGY)

Botany

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

A study of the fundamental principles of plant biology. 2 lectures; 2 laboratory periods.

Business Administration

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

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

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

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.

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

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

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.

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. It does not carry transfer credit.

Mer 290. (C) **Merchandise-Apprenticeship.** 3 to 6 hours.

Actual selling experience, under appropriate supervision with directed corollary readings. Conducted through the co-operation of local merchants.

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 204, 205. (S) **General Chemistry.** 4 or 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.** 4 or 5 hours spring and fall.
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. (S) **Organic Chemistry.** 5 hours.
Carbon compounds of the aliphatic series. Prerequisite: Ch 106 or Ch 206. 2 lectures; 1 recitation; 2 three-hour laboratory periods.
- Ch 227. (S) **Organic Chemistry.** 5 hours.
An intensive study of the chemistry of the aromatic series. Prerequisite: Ch 226.
- Ch 232, 233. (S) **Quantitative Analysis.** 5 hours each term.
Fundamental principles and laboratory practice. Prerequisite: Ch 206. 2 lectures; 3 three-hour laboratory periods.
- Ch 234. (S) **Quantitative Analysis.** 5 or 6 hours.
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.
Theory and calculations in inorganic chemistry as a foundation for industrial chemistry. Prerequisite: Ch 206. 3 lectures; 1 two-hour computation period.
- Ch 250. (S) **Elements of Biochemistry.** 4 hours.
Proteins, carbohydrates, fats, and other compounds having biochemical significance; fundamentals of analysis as applied in this work. Prerequisite: Ch 221 or equivalent. 2 lectures; 2 three-hour laboratory periods.

Clothing and Textiles

(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.** 4 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.** 3 hours.
Specific methods of study as applied to various subject-matter fields; the general principles of note-taking; study schedule; fixing study habits; evaluation of the various broad fields of human learning.

* 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.

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 programs.

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 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 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.

GE 131, 132, 133. (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. 1 lecture; 2 two-hour computation 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. 3 two-hour laboratory periods for CE 201, 202; 2 three-hour laboratory periods for CE 203.

CE 221. (S) Plane Surveying. 3 hours.

Theory and use of engineer's 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 electrical 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 one-hour laboratory periods.

***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.

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

Mechanical Engineering

ME 212. (S) **Mechanics (Statics)**. 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 in 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 propellor operations; navigation and meteorology; government aeronautical aids and regulations. Prerequisite: consent of instructor.

Terminal Engineering

GE 101, 102, 103. (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.

GE 201, 202, 203. (S) **General Engineering**. 4 hours each term.

Courses designed for technical terminal students and nonprofessional degree students. Application of the basic principles of science to general problems of engineering. 1 lecture; 1 recitation; 2 three-hour computation periods.

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.

GE 213. (S) **Elementary Machine Drafting**. 3 hours.

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

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 of literature by providing the student with a technique of appreciation. Readings over the whole range of English literature. Emphasis on appreciation rather than literary history.

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,

* A student may register for only one of the two sequences: Eng 101, 102 103 or Eng 104, 105, 106.

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.

The important historical plays, comedies, and tragedies. The three terms constitute a sequence but may be taken separately. **Prescribed 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

Eng R. (S) **Effective Reading**. 1 hour each term.

Designed to help students develop better comprehension and greater speed in their reading. 3 recitations. This is a no-grade course. It does not carry transfer credit.

Wr 114. (E) **Vocabulary Building**. 2 hours.

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. It does not carry transfer 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.

Wr 111, 112, 113. (U) **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.

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 113 (with B), or consent of instructor.

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

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

Library

Lib 117. (U) **Use of the Library**. 3 hours.

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

Foods and Nutrition

(See HOME ECONOMICS)

Foreign Languages

German

GL 1, 2, 3. (U) **First-Year German**. 3 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 4, 5, 6. (U) **Second-Year German.** 3 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.

RL 14, 15, 16. (U) **Second-Year Spanish.** 4 hours each term.

Intensive oral and written exercises designed to help the student acquire accurate and fluent use of Spanish. Reading of representative authors.

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) **Wood Utilization.** 3 hours.

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

F 311. (S) **Forest Land Use.** 3 hours.

Application of principles and techniques of economic planning to the problem of co-ordinating forest land uses with one another and with other forms of land use.

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, principles of geography; Geog 106, economic geography; Geog 107, human geography. 3 lectures; 1 two-hour laboratory period.

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

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

HG 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: HG 101.

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.

History

Hst 101, 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.

Origin and background of the Second World War; course of the war; problems of American war mobilization; war aims and post-war planning. Prerequisite: Hst 101, 102, 103 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.

Foods and Nutrition**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.

Household Administration**HAd 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.

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.

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 only on recommendation of the department. May not be taken for credit after completion of other 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 analytical geometry. Prerequisite: Mth 100 or equivalent.

Mth 105. (U) College Algebra. 4 hours.

Prerequisite: one and one-half years of high-school algebra or Mth 100.

Mth 104, 105, 106. (S) Mathematics of Business and Industry. 3 hours each term.

Algebra and mathematics of finance. Prerequisite: Mth 10 or equivalent high-school algebra. Mth 104 not open to students receiving credit in Mth 100.

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.**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 co-operation of local physicians and dentists.

Music

Mus 111, 112, 113. (S) Theory. 3 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 127, 128, 129. (E) 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.

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

Six hours maximum credit.

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

Six hours maximum credit.

Mus 232. (C) History of Music. 3 hours.

Evolution of music from primitive man; development of church music; development of instruments; a study of the masters of music, including twentieth-century music and musicians.

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

A musical background for the elementary-grade teacher; 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.

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.

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.

Nursing Education

Nur 111. (U) Backgrounds of Nursing. 3 hours.

The historical background of modern social and health movements; the relation of these to the evolution of nursing as a profession.

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

Home care of the sick; demonstration of ordinary nursing techniques under home conditions; improving 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

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 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 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).**

2 hours each term.

For majors. Instruction and practice.

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)**.

2 hours each term.

For majors. Instruction and practice.

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. This sequence is offered each term if demand is sufficient. 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. Co-ordinate 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, photo-sketching, 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.

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 co-operation.

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.

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.

Public Speaking

(See SPEECH)

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 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.

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 phases; dictation and transcripts covering vocabularies of representative businesses; legal forms; newspaper 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.

Social Science

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

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

Orientation in each of the social sciences; study of the method of science and its application to the social studies; attempts to create in the student the urge to independent thought through wide reading.

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.

Fall and winter: the basic findings of sociology concerning the individual, culture, group life, social institutions, and factors of social change. Spring: analysis of major social problems in terms of the basic concepts developed during the first two terms. Prerequisite: sophomore standing or consent of instructor.

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

An abridgment of Soc 204, 205, 206. Not open to students who have taken Soc 204, 205, 206.

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.

Study and practice of the principles of tone production. Phonetic analysis of English sounds as a basis for correct and effortless diction.

- Sp 211. (U) **Interpretation.** 2 hours.
The application of the principles of oral reading to literature.
- Sp 221. (U) **Public Discussion.** 2 hours.
Preparation of speeches for delivery before public audiences.
- Sp 251. (U) **Elements of Acting.** 2 hours.
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.

Writing

(See ENGLISH)

Zoology

- Bi 201, 202, 203. (U) **General Zoology.** 4 hours each term.
A study of the fundamental principles of animal biology. 2 lectures; 2 two-hour laboratory periods.
- Z 324, 325. (S) **Comparative Vertebrate Anatomy.** 4 hours each term.
Gross dissection and comparison of organ systems in representative vertebrate forms. Prerequisite: Z 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: Z 201, 202, 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.

Extension Services

Through extension services the benefits of all the Oregon state institutions of higher education are brought to the people of the state in their own communities. All divisions of the Oregon State System of Higher Education seek through every means possible, so far as resources and facilities permit, to serve the entire state. All extension activities of the several institutions are administered through two co-ordinated extension services: the General Extension Division and the Federal Co-operative Extension Service.

General Extension Division

Administration

JOHN FRANCIS CRAMER, D.Ed.

Dean and Director of General Extension Division; Professor of Education.

VIRON ALONZO MOORE, M.A.

Assistant Director of General Extension Division; Associate Professor of Education.

JEAN P. BLACK, Ph.D.

Librarian, General Extension Division; Associate Professor of History.

DOROTHY DOERING SMITH, B.A.

Accountant; Instructor in Extension Teaching.

Department of State-Wide Services

VIRON A. MOORE, M.A.

Head of State-Wide Services; Associate Professor of Education.

HOWARD JOHN AKERS, M.A.

Head of Correspondence Study; Administrative Assistant, Department of State-Wide Services; Assistant Professor of Education.

MOZELLE HAIR, B.A.

Head Emeritus of Correspondence Study; Assistant Professor Emeritus of Sociology.

VICTOR N. PHELPS, Ed.D.

Field Representative; Assistant Professor of Education.

ROBERT J. GRIDLEY, B.S.

Field Representative; Instructor.

MAUDE GARNETT, M.A.

Associate Professor of Music Education.

JENNELLE MOORHEAD, M.A.

Associate Professor of Health Education.

HAROLD W. BERNARD, Ph.D.

Assistant Professor of Education.

W. KENNETH FERRIER, M.S.

Assistant Professor of Education.

RUTH HOPSON, Ph.D.

Assistant Professor of General Science.

EVELYN HUDSON, M.S.

Assistant Professor of Physical Education.

MILDRED C. SCHMIDT, M.A.

Assistant Professor of Education.

ROBERTA JONES SCHUKART, M.A.

Assistant Professor of Art Education.

HELEN G. BROWN.

Head Secretary; Instructor in Extension Teaching.

Portland Extension Center

MARGARET MORRISON SHARP.

Director; Assistant Professor of Extension Teaching.

PHILIP WOOD JANNEY, B.A., C.P.A.

Professor of Business Administration.

ALFRED POWERS, B.A.

Professor of Journalism.

JAMES CARL CAUGHLAN, Ph.D.

Graduate Adviser; Associate Professor of Education.

PERCY M. COLLIER, B.A., LL.B.

Associate Professor of English.

HOYT C. FRANCHERE, M.A.

Associate Professor of English.

WESLEY L. HUNNER, M.A.

Assistant Professor of English.

VERL S. LEWIS, M.A.

Assistant Professor of Sociology and Social Work.

IVAN G. NAGY.

Assistant Professor of Political Science.

VINCENT A. OSTROM, M.A.

Assistant Professor of Political Science.

CLARK P. SPURLOCK, M.A.

Student Counselor; Assistant Professor of History.

LOUIS F. JUDKINS, B.J.

Manager of Information Services; Instructor in Journalism.

HELEN WILDERMAN, A.B.

Secretary; Instructor in Extension Teaching.

Radio Station KOAC

JAMES M. MORRIS, B.S.

Program Manager; Associate Professor of Radio Speech.

ARNOLD EBERT, B.S.

Director of Agricultural Programs; Assistant Professor of Agricultural Extension.

LEONA STRINGFELLOW NELSON, M.S.

Director of Women's Programs; Assistant Professor of Home Economics Extension.

DON S. SOMERVILLE, M.S.

Specialist in Radio Education; Assistant Professor of Radio Speech.

CLINTON A. GRUBER, B.S.

Chief Announcer; Instructor in Radio Speech.

JAMES M. JACKSON.

Director of Music; Instructor in Radio Speech.

JAMES S. NELSON.

Production Manager; Instructor in Radio Speech.

ELIZABETH E. DOTSON, B.S.

Director of KOAC School of the Air.

DORICE STEWART.

Secretary.

Visual Instruction**WILLIAM CURTIS REID, Ph.D.**

Head of Department; Associate Professor of Visual Instruction.

CHARLES VAN HENKLE, A.B.

Specialist in Visual Aids; Instructor in Visual Instruction.

NITA ELLISON.

Secretary.

Vanport Extension Center**STEPHEN E. EPLER, Ph.D.**

Director; Professor of Education.

PHIL S. PUTNAM, Ed.D.

Assistant Director; Associate Professor of Economics.

RICHARD B. HALLEY, M.S.

Men's Adviser; Assistant Professor of Economics.

JOSEPH V. HOLLAND, M.Ed.

Athletic and Recreational Director; Assistant Professor of Education.

LESLIE B. NEWHOUSE, B.S.

Business Manager; Assistant Professor of Business Administration.

A State-Wide Campus

The General Extension Division of the Oregon State System of Higher Education serves the people of the state through adult education by means of extension classes, correspondence study, visual instruction, and radio, and administers advertising and promotion for the summer sessions for

the institutions of the State System. Its work is organized into the following departments: At Corvallis—Visual Instruction; Radio Station KOAC. At Eugene—Department of State-Wide Services (Correspondence Study and Night Classes). At Portland—Portland Extension Center; Vanport Extension Center; Summer Sessions.

Through the General Extension Division the curricula, personnel, and facilities of all the state institutions of higher education are made available in some degree to every citizen, group, and community in Oregon. The activities of the General Extension Division are closely co-ordinated with those of the Federal Co-operative Extension Service and all other organized service agencies in the state.

Portland Extension Center

General Extension in Portland is carried on through the Portland Extension Center. More than four hundred evening courses in thirty-two different departments and professional schools were offered during the academic year 1949-50. The work of these classes is of standard college or university grade. Resident credit at the State College, the University, or the state colleges of education may be earned through these courses. Courses may be taken at the Portland Extension Center for graduate credit toward a master's degree at the State College or the University. Detailed information is published in the Portland Extension Center Announcements.

State-Wide Extension Classes

Through its program of state-wide extension classes the General Extension Division provides the people of the state of Oregon with opportunities for college instruction and educational growth in their home communities. Courses will be organized in any community which can furnish a suitable meeting place for a class and can give assurance of an enrollment large enough to pay, through course fees, the cost of providing an instructor. The state-wide extension program includes both college-credit and non-credit courses.

Correspondence Study

Study at home under competent supervision is possible for any adult through carefully organized courses of instruction prepared by members of the faculties of the Oregon State System of Higher Education. These lesson outlines take the place of lectures and class exercises given to students in residence. More than three hundred courses in a wide variety of subjects are offered. Courses may be taken without credit by persons who

enjoy the intellectual stimulus of organized, directed study, or they may be taken for credit toward a college degree. There are no special entrance requirements for correspondence courses; any adult who has sufficient preparation to profit from them may enroll. Complete information is published in a special Correspondence Study Catalog.

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 educational use by schools, community clubs, and other organizations. A special catalog is published listing the materials available. This department is maintained jointly by the General Extension Division and the Federal Co-operative Extension Service.

Radio Station KOAC

Radio Station KOAC is Oregon's public-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. 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, the Oregon colleges of education, and from various departments of the state government. In addition, many other public agencies, organizations, and individuals contribute frequently to broadcasts from the station. The station, established in 1925, is operated in the interest of the Oregon public. The programs are free from commercialism. 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. Announcements of radio programs are issued periodically and will be furnished on request. Studios are located at Corvallis and at Eugene.

Summer Sessions

Publicity for the summer sessions of the several institutions is administered by the General Extension Division. The State College, the University, the three colleges of education, the Vanport Extension Center, and the Portland Extension Center each offer a summer session of eight weeks. The summer session of the Institute of Marine Biology is also eight weeks in length. Both undergraduate and graduate courses are offered at the University, State College, and Portland sessions. Information concerning the summer sessions is issued in separate bulletins.

Enrollment in General Extension Division

July 1, 1949—June 30, 1950

EXTENSION CLASSES (Indicate City)	Undergraduates			Graduates			Auditors			Noncredit			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
Portland Center	1,614	2,504	4,118	338	303	641	297	566	863	128	109	237	2,877	3,482	5,859
Vanport Center	1,951	366	2,317	---	---	---	---	---	---	---	---	---	1,951	366	2,317
STATE-WIDE CLASSES															
Albany	9	93	102	10	17	27	---	5	5	---	---	---	19	115	134
Ashland	5	10	15	---	---	---	1	4	5	---	---	---	6	14	20
Astoria	12	74	86	11	16	27	1	1	2	---	---	---	24	91	115
Baker	5	35	40	6	7	13	---	---	---	---	---	---	11	42	53
Bandon	1	10	11	5	7	12	---	---	---	---	---	---	6	17	23
Bend	18	61	79	---	---	---	13	13	26	---	---	---	31	74	105
Bend C.C.*	67	44	111	---	---	---	---	1	1	---	---	---	67	45	112
Bonneville	12	4	16	---	---	---	7	10	17	---	---	---	19	14	33
Canby	2	28	30	---	---	---	1	---	1	---	---	---	3	28	31
Central Point	5	36	41	---	---	---	13	15	28	---	---	---	18	51	69
Coos Bay	6	99	105	2	5	7	---	6	6	---	---	---	8	110	118
Coquille	8	64	72	---	---	---	1	8	9	---	---	---	9	72	81
Corvallis	55	154	209	29	22	51	20	30	50	---	---	---	104	206	310
Cottage Grove	3	30	33	1	5	6	---	1	1	---	---	---	4	36	40
Dallas	2	15	17	9	8	17	---	---	---	---	---	---	11	23	34
Enterprise	11	42	53	---	---	---	---	---	---	---	---	---	11	42	53
Estacada	3	29	32	6	6	12	---	---	---	---	---	---	9	35	44
Eugene	184	311	495	41	86	127	65	58	123	132	144	276	422	599	1,021
Florence	2	21	23	---	---	---	1	2	3	---	---	---	3	23	26
Forest Grove	9	25	34	22	13	35	---	---	---	---	---	---	31	38	69
Grants Pass	27	91	118	7	5	12	---	2	2	---	---	---	34	98	132
Halsey	3	16	19	---	---	---	---	---	---	---	---	---	3	16	19
Harrisburg	2	23	25	---	---	---	---	1	1	---	---	---	2	24	26
Hermiston	13	56	69	---	---	---	---	---	---	---	---	---	13	56	69
Hillsboro	95	324	419	2	1	3	14	8	22	---	---	---	111	333	444
Hood River	14	68	82	13	7	20	2	21	23	---	---	---	29	96	125
John Day	2	5	7	---	---	---	---	---	---	---	---	---	2	5	7
Klamath Falls	63	216	279	18	12	30	35	66	101	25	23	48	141	317	458
Klamath Falls C.C.*	67	102	169	---	---	---	9	12	21	---	---	---	76	114	190
La Grande	2	4	6	34	14	48	---	1	1	---	---	---	36	19	55
Lake Grove	2	18	20	---	---	---	---	---	---	---	---	---	2	18	20
Lakeview	2	13	15	---	---	---	---	---	---	---	---	---	2	13	15
Lebanon	9	78	87	7	11	18	1	1	2	---	---	---	17	90	107
Lyons	3	14	17	---	---	---	---	1	1	---	---	---	3	15	18
Madras	---	13	13	---	---	---	---	---	---	---	---	---	---	13	13
McMinnville	20	89	109	3	3	6	1	2	3	---	---	---	24	94	118
McNary	24	10	34	---	---	---	7	1	8	---	---	---	31	11	42
Medford	26	84	110	7	6	13	3	7	10	---	---	---	36	97	133
Milton	5	13	18	---	---	---	1	2	3	---	---	---	6	15	21

* Community College.

Enrollment in General Extension Division

(Continued)

July 1, 1949—June 30, 1950

	Undergraduates			Graduates			Auditors			Noncredit			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
Milwaukie.....	1	23	24	4	9	13	.....	.....	.....	.....	.....	.....	5	32	37
Molalla.....	.....	29	29	.....	.....	.....	.....	2	2	.....	.....	.....	.....	31	31
Monmouth.....	12	33	45	15	7	22	.....	1	1	.....	.....	.....	27	41	68
Monroe.....	.....	6	6	.....	1	1	.....	3	3	.....	.....	.....	.....	10	10
Moro.....	5	10	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	10	15
Myrtle Creek.....	1	27	28	10	7	17	.....	.....	.....	.....	.....	.....	11	34	45
Newberg.....	4	30	34	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	30	34
Newport.....	15	60	75	1	5	6	.....	2	2	.....	.....	.....	16	67	83
North Bend.....	5	23	28	6	8	14	.....	1	1	.....	.....	.....	11	32	43
Ontario.....	4	73	77	28	15	43	.....	.....	.....	.....	.....	.....	32	88	120
Oregon City.....	5	.....	5	6	.....	6	.....	.....	.....	.....	.....	.....	11	.....	11
Pendleton.....	19	40	59	18	11	29	.....	3	3	.....	.....	.....	37	54	91
Prineville.....	5	32	37	.....	.....	.....	2	.....	2	.....	.....	.....	7	32	39
Rainier.....	6	31	37	1	3	4	.....	1	1	.....	.....	.....	7	35	42
Redmond.....	2	21	23	9	.....	9	.....	2	2	.....	.....	.....	11	23	34
Roseburg.....	17	142	159	38	28	66	2	9	11	.....	.....	.....	57	179	236
Salem.....	93	210	303	27	39	66	8	10	18	24	24	152	259	411	
Sandy.....	3	26	29	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	26	29
Seaside.....	1	11	12	.....	2	2	.....	1	1	.....	.....	.....	1	14	15
Silverton.....	7	28	35	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	28	35
Stayton.....	4	6	10	.....	.....	.....	4	.....	4	.....	.....	.....	8	6	14
St. Helens.....	3	45	48	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	45	48
Sutherlin.....	2	22	24	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	22	24
Sweet Home.....	7	33	40	12	9	21	1	.....	1	.....	.....	.....	20	42	62
Taft.....	1	7	8	.....	2	2	2	1	3	.....	.....	.....	3	10	13
The Dalles.....	.....	25	25	4	5	9	.....	.....	.....	.....	.....	.....	4	30	34
Tigard.....	6	28	34	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	28	34
Tillamook.....	13	51	64	2	11	13	.....	.....	.....	.....	.....	.....	15	62	77
Vale.....	13	21	34	2	.....	2	.....	.....	.....	.....	.....	.....	15	21	36
Veneta.....	2	17	19	.....	.....	.....	1	1	2	.....	.....	.....	3	18	21
Willamina.....	3	17	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	17	20
Yoncalla.....	2	13	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	13	15
Total Extension Classes.....	4,624	6,432	11,056	754	716	1,470	513	882	1,395	309	276	585	6,200	8,306	14,506
CORRESPONDENCE STUDY															
New Registrants.....	1,293	1,418	2,711†	.....	.....	.....	.....	.....	.....	.....	.....	.....	861	948	1,809†
Old Registrants.....	861	948	1,809	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,293	1,418	2,711†
Total, Correspondence Study.....	2,154	2,366	4,520†	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,154	2,366	4,520†
‡Grand Total, Extension Classes and Correspondence Study.....	6,778	8,798	15,576	754	716	1,470	513	882	1,395	309	276	585	8,354	10,672	19,026

† June registrations estimated from last year's report.

‡ Figures include 121 men and 354 women who took classes in more than one center.

State Board of Higher Education

GEORGE F. CHAMBERS, Salem • 1951*

LEIF S. FINSETH, Dallas • 1952

PHIL METSCHAN, Portland • 1953

HENRY F. CABELL, Portland • 1954

EDGAR W. SMITH, Portland • 1955

A. S. GRANT, Baker • 1956

CHERYL S. MACNAUGHTON, Portland • 1957

HERMAN OLIVER, John Day • 1958

R. E. KLEINSORGE, Silverton • 1959

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EDGAR W. SMITH, *President*

R. E. KLEINSORGE, *Vice-President*

Executive Committee

EDGAR W. SMITH

R. E. KLEINSORGE

LEIF S. FINSETH

Chancellor

PAUL C. PACKER

Secretary

CHARLES D. BYRNE

Offices

Eugene, Oregon

* Date indicates expiration of term.

Officers of Administration

PAUL C. PACKER, Ph.D., LL.D.

Chancellor

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

Honorary Chancellor

HARRY K. NEWBURN, Ph.D.

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AUGUST LEROY STRAND, Ph.D.

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DAVID W. E. BAIRD, M.D., LL.D.

Dean, University of Oregon Medical School

ROBEN J. MAASKE, Ph.D.

President, Oregon College of Education

ELMO NALL STEVENSON, Ed.D.

President, Southern Oregon College of Education

RODERICK G. LANGSTON, Ed.D.

President, Eastern Oregon College of Education

Office of the Chancellor

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**Oregon
State
System
of
Higher
Education**

Organized in 1932 by the State Board of Higher Education following a federal survey of higher education in Oregon, the System 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.

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