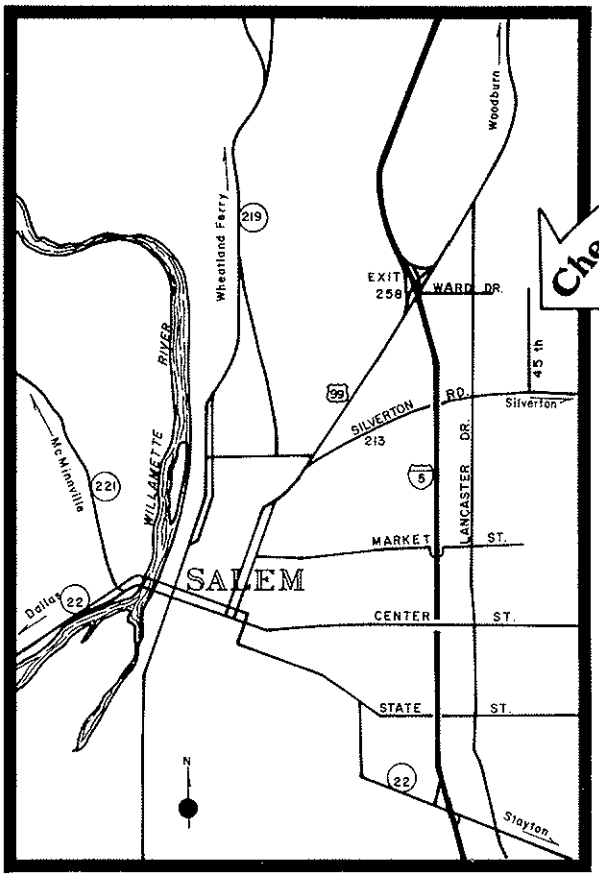
Chemeketa
Community College

1982-83 Catalog



Chemeketa

4000 Lancaster Drive N.E.
P.O. Box 14007
Salem, Oregon 97309

About this Catalog

This catalog is published for information to the general public. Every effort is made to insure accuracy at the time of printing. However, the statements contained here are not to be regarded as an irrevocable contract between a student and the college. Chemeketa reserves the right to make any necessary changes in matters discussed herein, including procedures, policies, calendar, curriculum or course content or emphasis, and costs and to cancel any course if enrollment in it is below a minimum number.

CHEMEKETA COMMUNITY COLLEGE

1982-83 Catalog

Table of Contents

CHEMEKETA COMMUNITY COLLEGE

4000 Lancaster Drive NE, P.O. Box 14007, Salem, Oregon 97309

Chemeketa Community College is an equal opportunity, affirmative action institution.

APPLICATION FOR ADMISSION

To apply for admission to a program listed on the other side of this form, fill out the form and return or mail it to the Admissions Office, building 22, room 110, Salem campus (address at left). Contact the Admissions Office, (503) 399-5006, for information on limited enrollment programs, admission requirements for specific programs or the status of your application.

PLEASE PRINT

Social Security Number ☐☐☐ ☐☐ ☐☐☐☐

Name _____ (Last) (Maiden Name) (First) (Initial)

Mailing address _____ (Number) (Street) City _____

State _____ Zip _____ County _____ Phone (Home) _____ (Work) _____

Permanent address _____ (Number) (Street) City _____

State _____ Zip _____ County _____ Phone _____

How long at mailing address? _____ How long at permanent address? _____

Date of birth _____ (Month Day Year) Age _____ Sex ☐ Female ☐ Male U.S. citizen ☐ No ☐ Yes

Schools attended	Name & location	Grade completed	Last year attended
☐ High school ☐ GED			
Colleges,			
Occupational Schools			

My major at CCC will be: (See other side) ☐ College transfer curriculum in _____ ☐ Occupational curriculum in _____

What term do you plan to *start* at CCC? ☐ Fall ☐ Winter ☐ Spring ☐ Summer

To assist the college in complying with federal requirements and to provide needed services, you are urged to supply the following information voluntarily. This information is confidential.

Ethnic background
(circle number which applies)

1 White, Non-Hispanic
2 Black, Non-Hispanic
3 Hispanic
4 American Indian or Alaska native
5 Asian or Pacific Islander
6 No response

Are you handicapped?
(circle numbers which apply)

1 Yes
2 Blind/visually impaired
3 Deaf/hearing impaired
4 Physically handicapped
5 Other _____
6 No
7 No response

Are you applying for any type of financial aid through Chemeketa's financial aid office? ☐ Yes ☐ No

If yes, please complete the questions inside the box below:

Terms completed at Chemeketa: (circle one) 0 1 2 3 4 5 6 7 8

Terms for which you are requesting aid:
(Indicate *all* which apply)

Summer 19__
Fall 19__
Winter 19__
Spring 19__

Circle benefits for which you are eligible.

1 Veteran's Benefits
2 Social Security Benefits
3 CETA
4 Vocational Rehabilitation
5 Welfare
6 ADC 7 BIA

In case of emergency notify:

Name _____ Address _____ Phone _____

I certify that all statements on this application are complete and true. I also understand that if I am admitted and do not enroll for the term to which I am admitted, I will need to reapply for admission.

Signature _____ Date _____

PROGRAM CHOICES

Select one of the following programs of study:

Occupational Programs

Accounting (025)
Agriculture—Agribusiness (625)
Agriculture—Crop Production (626)
*Automotive Mechanics (135-29A)
*Auto Parts Sales (668)

Banking and Finance—Banking (54A)
Banking and Finance—Savings and Loan (54C)
Banking and Finance—Credit Union (54E)
Building Inspection (635)

Civil-Structural Engineering (110)
Clerical Technology (023)
Commercial Food Production (100)
* Computer Operations (031-29R)
* Computer Programming (032-29T)
Criminal Justice—Administration (048)
Criminal Justice—Corrections (047)
Criminal Justice—Law Enforcement (050)

*Dental Assisting (081-29C)
Drafting Technology (142)

Early Childhood Education (060)
Educational Aide—Kindergarten/Lower Elementary (06A)
Educational Aide—Junior/Senior High (06C)
Educational Aide—Bilingual/Bicultural (06E)
Educational Aide—Handicapped Learner (06F)
Educational Aide—Vocational-Technical (06G)
* Electromechanical Technology (127)
* Electronic Engineering (120)
*Electronic Servicing/Communication Technician (125)
*Emergency Medical Technology (607-29L)

Fire Prevention/Insurance Risk Inspection (571)
* Fire Suppression (052-29D)
Food Service Management (622)
Forest Technology (056)

* Health Records /Medical Transcriptionist (088-29P)
* Human Resource (086-29E)

Industrial Technology (160)

*Machine Mechanical Technology (134-29F)
*Machine Tool Operations (139)
Management (026)
Mechanical Design (143)
* Medical Office Assistant (083-29M)

* Nursing (084-29H)

Office Occupations (500)

Real Estate—Appraisal (04A)
Real Estate—Brokerage (04C)
Real Estate—Escrow (04E)
Records Management (533)

Secretarial/Office Administration—Engineering (02A)
Secretarial/Office Administration—Legal (512)
Secretarial/Office Administration—Medical (029)
Secretarial/Office Admin.—Office Admin.(Prof. Secy.) (028)
* Silicon Technology (146)
Survey Technology (637)

* Visual Communications (145-29J)

* Ward Clerk (614)
* Welding (137-29K)
* Welding Fabrication (136-29N)

High School Completion (063)

One star (*) indicates programs which may have special admission requirements or enrollment limits. Please contact the Admissions Office.

Lower Division courses of Study which may be transferred to Oregon's four-year colleges and universities

LDC-Business (210)
Accounting
** Business Administration
** Business Education
Marketing

LDC-Computer Sciences (320)
** Computer Science

LDC-Education (220)
** Elementary
** Secondary
Special Education

LDC-Forestry (340)
** Forestry

LDC-Health (275)
Community Health
** Health Education
** Nursing

LDC-Home Economics (240)
Child Development
** Home Economics

LDC-Humanities (230)
Architecture
** Art
** English
** Foreign Languages
** Journalism
Literature
Music
** Philosophy
** Speech
Theater

LDC-Mathematics (310)
** Mathematics

LDC-Physical Education (270)
** Physical Education

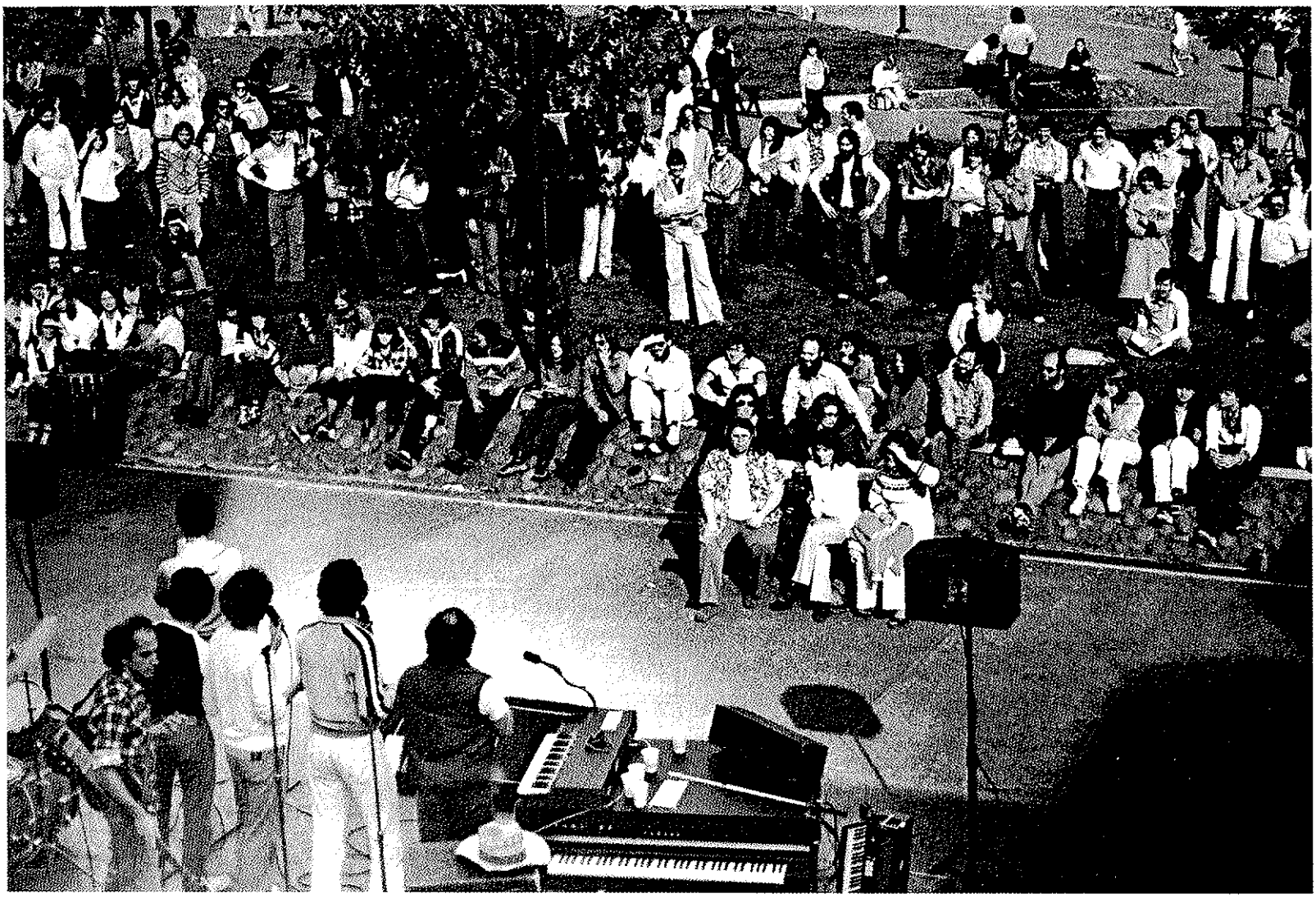
LDC-Engineering (330)
** Engineering

LDC-Science (300)
** Agriculture
Atmospheric Sciences
** Biology
** Botany
** Chemistry
** Chiropractic
** Geology
Horticulture
Oceanography
Physical Science
** Physics
** Pre-professional Study
(Medicine, Dentistry, and Veterinary Medicine)
** Zoology

LDC-Social Sciences (260)
American Studies
** Anthropology
** Economics
Ethnic Studies
** Geography
** History
Law Enforcement-Corrections
** Political Science
Pre-Law
** Psychology
** Sociology

LDC-Exploratory (280)
** General Studies
Undecided Majors

Two stars (**) indicate which courses of study are included in the college catalog.



About Chemeketa . . .

Academic Calendar

	Summer 1982	Fall 1982	Winter 1983	Spring 1983
Registration	June 21	Sept. 20-24	Jan. 3	Mar. 28
Evening, non-credit, and off-campus classes in regular session	June 21	Sept. 27	Jan. 3	Mar. 28
Salem campus day credit classes in regular session	June 22	Sept. 27	Jan. 4	Mar. 29
Holidays	July 5	Nov. 11 Nov. 25-26		May 30
Last day to withdraw from classes without responsibility for grades	Aug. 6	Dec. 10	Mar. 11	June 3
Review and examination		Dec. 13-16	Mar. 14-17	June 6-9
End of term	Aug. 13	Dec. 17	Mar. 18	June 10
Graduation				June 10

About Chemeketa . . .

Chemeketa Community College is for people, for all the different kinds of people within its district boundaries. The college's goal is to meet the lifelong educational needs of these citizens by offering them many educational opportunities. These range from vocational and academic training to personal development and life enrichment.

In planning its programs, Chemeketa responds to the expressed needs and desires of the citizens within the district which includes Marion, Polk, most of Yamhill, and part of Linn counties. This area of over 6,600 square kilometers (2,600 square miles) has a population of about 290,000 persons. The college aims to offer instructional programs and services which are community based, comprehensive, accessible, and flexible without duplicating programs and services offered by other community agencies.

As a public institution, Chemeketa's financial support comes primarily from local taxes, state allocations, and tuition and fees.

Chemeketa traces its origins to the local school district's Salem Technical Vocational School which was established in 1955 with ten full-time students. The college district was formed in September, 1969. In 1980-81, over 37,000 individuals enrolled in Chemeketa's various programs, classes, and workshops.

The college's 160-acre campus at 4000 Lancaster Drive N.E., Salem, includes six major buildings with well-equipped modern classrooms, laboratories, and shops. Part of the campus serves as an agricultural laboratory. For more information on Salem campus facilities, contact the admissions office in building 22, 399-5006.

Chemeketa's McMinnville Center is on five acres at 500 N. Hill Road. Two buildings provide classroom and office space. The college also has centers in Dallas, Stayton, and Woodburn.

Classes are offered in about 25 communities. They are scheduled days, evenings, and weekends.

Chemeketa received full accreditation by the Northwest Association of Schools and Colleges in December of 1972. In addition, all of Chemeketa's vocational-technical programs are approved by the Oregon Board of Education. Programs requiring accreditation by professional associations have received those approvals. The Oregon Board of Education has approved Chemeketa's college transfer courses. For information on accreditation and approvals, contact the office of the dean of student services in building 18 on the Salem campus.

Who are Chemeketa's students?

There is no typical Chemeketa student. Students are all ages (the median age in 1980-81 was 31 years) and have many different goals. These include training or re-training for careers, keeping up-to-date in their vocations, continuing their interrupted educations, expanding their knowledge, learning new skills, and getting to know more about themselves and others. As different as they are, Chemeketa's students have something in common — they come to the college to learn.

Some students attend Chemeketa full-time; others go part-time. Many combine work and school.

Approximately two-thirds of the students taking degree or certificate programs on the Salem campus are enrolled in occupational courses. About one-third are taking college transfer classes.

Who are the teachers?

Almost half of Chemeketa's 532 full-time staff members are instructors. In addition, the college employs about 800 part-time teachers each year. Many of them are evening instructors who teach classes directly related to their full-time jobs in the community.

What kind of education does Chemeketa offer?

Chemeketa has three areas of learning opportunities:

Vocational-technical education is for students who want to qualify as workers in specific fields. Chemeketa has more than 40 programs which are planned to meet the needs and demands for workers within the college district.

Graduates receive certificates of completion after successfully completing certain one-year programs. Associate in Science degrees are awarded students who meet the requirements of programs which usually require two years. These time spans are for students attending full-time. However, many students go to Chemeketa part-time, extending their courses of study over a longer period. Through the college Cooperative Work Experience program, many students work in fields related to their study.

Education of the whole person is one of Chemeketa's goals. Therefore, general education classes are included in most of Chemeketa's occupational programs as well as in college transfer curricula.

The college hopes that as students study one subject area in depth, their general education classes will help them increase their self-awareness, appreciate the values of good physical and mental health, become competent in English and mathematics, and gain an understanding of history, governments, and economic systems.

College transfer courses. Chemeketa offers lower division credit courses which may be transferred to most four-year colleges and universities in Oregon. Students who successfully complete Chemeketa's two-year college transfer program may earn an Associate in Arts degree. Also, some of the college's vocational and technical programs include courses which may be transferred for college credit.

Generally, courses numbering 100 and above are transferable. Counselors and academic advisors have more specific transfer information.

Lifelong education is important at Chemeketa. The college offers credit and non-credit classes, workshops, and short courses to help people learn and improve technical, vocational, avocational, and academic knowledge and skills, to retrain for new positions, and to continue their personal development.

Throughout the college district, Chemeketa holds classes for people who want to learn basic skills, finish a high school education or learn English as a second language.

Community education classes, scheduled throughout the district as well as in Salem, meet during the day, evening, and on weekends. For more information, check the Community Education section of this catalog.

Admission, Registration, Academic Information

Admission (399-5006)

Chemeketa has an "open door" policy. In general, persons may enroll if they are 18 years of age or older and can benefit from the instruction. Students 16 or 17 years of age who have not graduated from high school may enroll only if their high schools release them to come to Chemeketa.

The table on the next page lists the enrollment steps. An application form for admission is on page ii of this catalog.

The college advises students to meet with a counselor, academic advisor or program staff member before registration. Together they can discuss academic and vocational plans and the requirements for the program in which the student is interested.

Placement Tests (399-5120)

Chemeketa requires all incoming and first-year students who enroll in seven or more credit hours, to take reading, English, and mathematics placement tests. The college also recommends the tests to other students before they register for their first Chemeketa English and math courses. The tests are free.

These are not admissions tests; they measure skill levels to help advisors recommend to students courses suitable for their abilities. The tests are given by the counseling center in building 2 on the Salem campus and at Chemeketa centers in Dallas, McMinnville, Stayton, and Woodburn.

Enrollment Limitations

Despite Chemeketa's open door policy, the college does not guarantee that a student will be admitted to a particular program. Chemeketa may limit enrollment in a class or program because of lack of staff, space or equipment or may restrict the number of students in an occupational program to the number of workers needed to fill job demands in the college district. Some programs have special admission requirements.

Chemeketa urges interested students to apply early for these programs which may limit enrollment or have special admission requirements:

Automotive Technology
Computer Operations
Computer Programming
Dental Assisting
Electronics Technology
Emergency Medical Technology
Fire Protection Technology
Human Resource
Machine Technology
Medical Office Assisting and Health Records
Nursing (Registered Nurse, Licensed Practical Nurse, and re-entry courses)
Visual Communications
Welding
Welding Fabrication

Applicants who are not accepted in one of these programs may still be admitted to the college. They may apply to enroll in a related prevocational program or some other program.

Transfer Credits From Other Colleges/CLEP (399-5006)

Students may transfer credits from other colleges by requesting those colleges to forward copies of their transcripts to the

How to Enroll at Chemeketa

Student classification	1. Academic and career decision-making	2. Application for admission	3. Mathematics, reading, and English placement tests	4. Registration for classes
Full-or part-time Salem campus day students in certificate or degree programs	Contact counseling center, building 2 (optional)	File application for admission with admissions office, building 22, or counseling center. See application form, page ii.	Contact counseling center, building 2	Follow directions sent by admissions office 10 days prior to registration day; on registration day, consult with advisor about classes
Salem campus day students in limited enrollment programs*	Contact counseling center, building 2 (optional)	Contact admissions office, building 22	Contact counseling center, building 2	Follow directions sent by admissions office 10 days prior to registration day; on registration day, consult with advisor about classes
Salem campus day students taking six credit hours or less and not in certificate or degree programs	Contact counseling center, building 2 (optional)	File application for admission with admissions office, building 22, or counseling center, building 2	Tests not required but advised if enrolling in English or mathematics; contact counseling center, building 2	Follow directions sent by admissions office 10 days prior to registration day; on registration day, consult with advisor about classes
Students attending evening, non-credit and/or weekend classes in Salem	Contact counseling center, building 2 (optional)	Application for admission not required	Test not required but may be taken free; contact counseling center, building 2	Consult quarterly schedule of classes for registration dates or register at first class session
Students attending classes outside of Salem	Call nearest Chemeketa center (optional)	Application for admission not required	Tests not required but may be taken free; contact nearest Chemeketa center	Consult quarterly schedule of classes; register at local Chemeketa centers

*The following instructional programs require special admission procedures:

Automotive Technology
Computer Operations
Computer Programming
Dental Assisting
Emergency Medical Technology
Fire Protection
Human Resource
Machine Shop
Medical Office Assisting and Health Records
Nursing (RN, LPN, re-entry courses)
Visual Communications
Welding
Welding Fabrication

Student's Check List

Before you register:

1. If you are a new student, have you
☐ applied for admission to the college? Contact the admissions office, Salem campus, building 22, 399-5006. An Application form is on page ii.
☐ taken mathematics, reading, and English placement tests? Contact the counseling center, Salem campus, building 2, 399-5120.
☐ checked to find out if there are special admission requirements for the program you want to enter? Contact the admissions office, Salem campus, building 22, 399-5006.

2. Do you know the costs of
☐ special tools, equipment, uniforms, etc. required by your program? Contact the admissions office, Salem campus, building 22, 399-5006.
☐ tuition and fees? Contact the registrar's office, Salem campus, building 22, 399-5001.

3. Have you made arrangements for
☐ transportation?
☐ child care?

4. ☐ Have you inquired about financial aid? Contact the financial aid office, Salem campus, building 22, 399-5018, or the Chemeketa center in your community.

5. ☐ Have you checked on your eligibility for Veterans Administration educational benefits? Contact the registrar's office, Salem campus, building 22, 399-5004.

6. ☐ Have you read the term schedule of classes for registration information and class listings? Look in your mail box or contact the counseling center, Salem campus, building 2, 399-5120, or the Chemeketa center in your community.

admissions office. College Level Exam Program (CLEP) scores should be forwarded in the same manner. Students must then contact the admissions office to begin an evaluation of those transcripts and/or CLEP scores.

Accepted transfer and/or CLEP credits become part of a student's permanent record at Chemeketa. Grades earned are not indicated; only course grades earned at Chemeketa are used in computing grade point averages.

Readmission
(399-5006)

Former Chemeketa students who wish to return to the college may apply for readmission by filing a completed application form with the admissions office.

International Students
(399-5006)

Students who are citizens of other countries may be asked to meet certain federal immigration and college requirements before being admitted to Chemeketa. They may be expected to maintain certain levels of academic achievement acceptable to the United States Immigration Service and to the college. The admissions office has special application materials for international students.

Members of both Chemeketa's counseling staff and bilingual program are available to help these students.

Registration
(399-5001)

After a person has been admitted to Chemeketa he or she may register for classes at the beginning of a term. Registration dates are listed in the academic calendar on page vii. Detailed information is given in the schedule of classes published quarterly.

Class Loads
(399-5001)

Students are limited to 22 credit hours per term. Any additional credit hours require special permission of the registrar. Students who are authorized to enroll for more than 22 hours pay additional fees at the designated rate per credit hour.

Class Changes
(399-5001)

Students may make changes in their schedules before the deadline indicated in the class schedule each term. These changes should be approved by an academic advisor and taken to the registrar's office for processing. Schedule change (add-drop) forms are available in the registrar's office, staff offices, and the counseling center.

Tuition
(399-5011)

Tuition and fees are due in full at the time of registration unless a student has made special arrangements with the business office.

Students who carry 12 or more credit hours per term are considered full-time students academically, but when paying tuition, those enrolling in 10 or more credit hours are classified as full-time students.

Tuition rates for 1982-83 are

Full-time in-district students.....$180 per term

Part-time in-district students..$18 per credit hour

Full-time out-of-district but in-state students.....$270 per term

Part-time out-of-district but in-state students..$27 per credit hour

Full-time out-of-state students.....$670 per term

Part-time out-of-state students..$67 per credit hour

Non-credit and apprenticeship students...$1 per class hour

An in-district student is one who has established a permanent residence within the college district at least three months prior to first registration.

Persons who do not meet in-district criteria and whose homes or permanent addresses are in Oregon but outside the Chemeketa Community College district are out-of-district students. Any student whose permanent address is outside Oregon is classed as an out-of-state student. International students who require an I-20 immigration document are considered out-of-state students.

Certain courses, particularly some professional training classes such as the certified life underwriter series, may require separate registration and tuition. There may be additional charges for some classes to cover the cost of required materials.

Full-time students without other kinds of financial assistance may make arrangements with the business office to defer tuition payments.

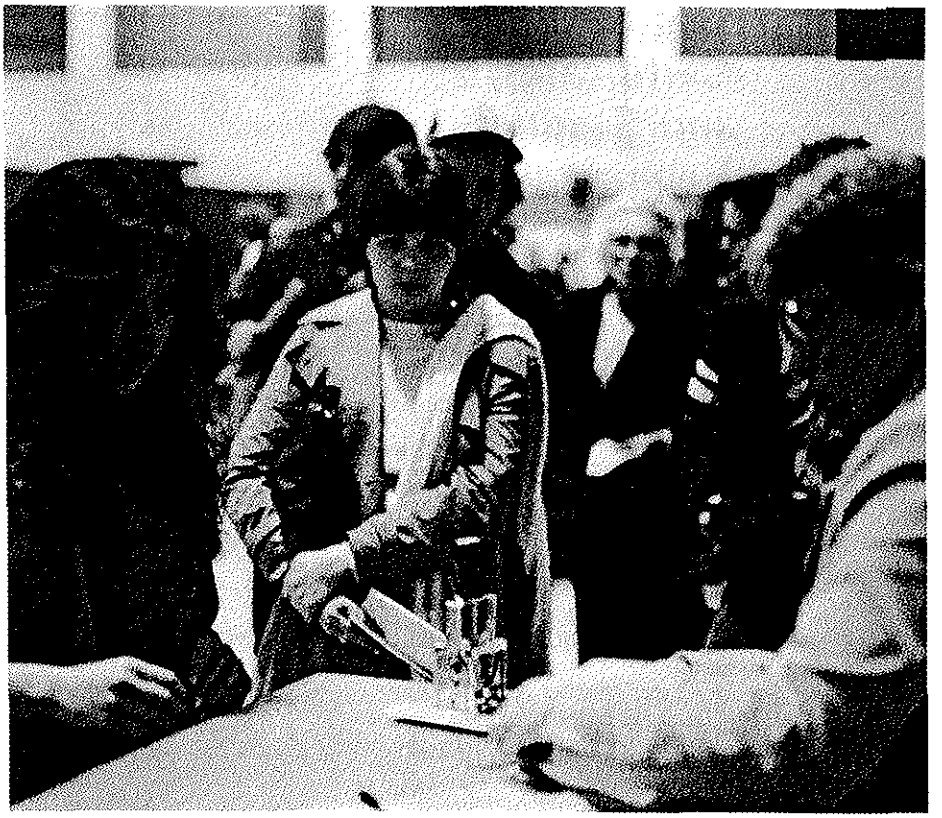
Students may not register if they have any financial obligations to the college from prior terms.

The college may cancel a course if enrollment is below a minimum number, and the college will refund tuition in full. No refund is granted to a student who has been suspended from the college.

The college board reserves the right to change tuition rates without prior notice.

Books and Supplies (399-5131)

Books and supplies may be purchased at the college stores in building 20 on the Salem campus and at the McMinnville center. The cost varies with each program. Normally, the cost ranges from $300 to $500 a year or about $100 to $150 a term.



Other Fees (399-5001)

Locker fee (optional)... $2.50
Physical education locker and towel fee (optional) $5.00
Laboratory fees vary by the course. See course descriptions in this catalog.

In some programs there are special costs for tools, equipment, uniforms, etc. Contact the admissions office in building 22 on the Salem campus for more information.

Student Health and Accident Insurance (399-5011)

Students may purchase health and accident insurance for themselves and their dependents at the business office in building 22 during the first two weeks of each term. The college encourages students to have insurance coverage if they are enrolled in classes involving risk and/or much physical activity.

Student Health Services (399-5023)

Chemeketa's first aid office is in building 22, room 113. Because the college has no physician, students must rely upon their personal physicians, dentists or clinics, to meet their medical needs.

Student Living Accommodations

Chemeketa does not provide living accommodations and assumes no responsibility for student living arrangements. However, the student activities office on the Salem campus lists some housing available to students in the Salem area.

Child Care (399-5107 or 399-5174)

Child care is available for a limited number of children at the child development center in building 37 and at the short-term children's center in building 2 on the Salem campus. Application is open to all families.

Degrees, Certificates, and Graduation Requirements

Graduates of Chemeketa's two-year programs are awarded Associate in Arts or Associate in Science degrees. These are both nationally recognized degrees. Certificates of Completion are awarded to students who meet the requirements of certain one-year programs.

Associate in Arts Degree

To qualify for an Associate in Arts degree, a student must meet these requirements:

1) A minimum of 93 credit hours.
2) A cumulative grade point average of 2.0 or above in all work to be applied to the degree.
3) Six credit hours of English composition.
4) One term in personal health.
5) Five terms of physical education (partial or total waiver is available under certain circumstances).
6) One sequence in humanities (English composition sequence does not meet this requirement).
7) One sequence in math or science.
8) One sequence in social science.
9) One additional sequence in humanities, math, science or social science.
10) Completion of a minimum of 30 credit hours at Chemeketa.

Specific course sequences satisfying the above requirements are listed on page 21.

Up to 12 credit hours earned in occupational programs may be applied toward the degree. (Students should be aware that these credit hours may not transfer to a four-year school.)

Associate in Science Degree

Chemeketa awards Associate in Science degrees to students in two-year occupational programs who successfully meet these requirements:

1) Completion of the required courses and credit hours listed for each program (a minimum of 90 credit hours).
2) Completion of a minimum of 30 credit hours at Chemeketa.
3) A cumulative grade point average of 2.0 or above for all course credits which apply toward the degree.

Associate in Science Degrees are granted in the following areas:

Accounting
Agriculture Technology
Automotive Technology
Banking and Finance
Building Inspection
Civil/Survey Technology
Computer Programming
Criminal Justice
Drafting Technology
Early Childhood Education
Educational Aide
Electronics Technology
Emergency Medical Technology
Fire Protection Technology
Food Service Management
Forest Technology
Human Resource
Industrial Technology
Machine Technology
Management
Mechanical Design
Nursing
Real Estate
Records Management
Secretarial/Office Administration
Visual Communications
Welding Fabrication

Certificate of Completion

General requirements for the Certificate of Completion are:
1) Satisfactory completion of all required courses in the program.
2) A cumulative grade point average of 2.0 or above for all course work to be applied to the certificate.

Certificates of Completion are available in the following areas:
Auto Parts Sales
Building Inspection
Clerical Technology
Commercial Food Production
Computer Operations
Dental Assisting
Early Childhood Education
Educational Aide
Medical Assisting
Nursing
Office Occupations
Welding

Graduation

A student, with the guidance of his or her advisor, is responsible for fulfilling the requirements for graduation.

Candidates for graduation fill out applications for degrees or certificates and return the forms to the registrar's office by the fourth week of the academic term preceding the term in which they will meet the program requirements.

Under certain circumstances, a student is allowed to deviate from a prescribed curriculum and still meet graduation requirements. A student who wishes to substitute a course different than a required one may petition the registrar, but is advised to discuss the proposed substitution with his or her program director or academic advisor before filing a petition. If the director approves the substitution and a student can show that it will benefit him or her without detracting from the quality of his or her preparation, the registrar may grant the substitution.

Degrees and certificates are official when graduation information is recorded on a student's transcript. Degrees are conferred once a year at the close of spring term.

Students completing requirements for degrees during the summer term may be included in the preceding June graduation exercises.

Grading System

Final grades are issued at the end of each quarter. Letter grades are assigned points according to the following system:

A	Excellent	4
B	Good	3
C	Average	2
D	Below Average	1
F	Failed	0
P	Pass	0
N	No Grade Assigned	0
W	Withdrawal	0
I	Incomplete	0
X	Audit	0

The grade point average is computed by dividing the total credit hours (except W, I, P, N, and X) into the total points earned.

An instructor may give an "Incomplete" when in his or her judgement a student has failed to complete a minor portion of required class work although he or she has attended the class regularly. To remove an "Incomplete," a student must make up the required class work within one year following the term in which he or she received it. The grade is then recorded by the registrar.

Repeating a Course

Students may repeat courses in which they earned D, F, W or I grades.

If a student makes a higher grade when he or she repeats the course, it will be substituted when the grade point average is computed. The college suggests that a student confer with an academic advisor before repeating a course.

Credit by Examination (399-5120)

An alternate way for students to earn credits for some courses is to prove their college level ability in them by passing examinations on them successfully. These challenge examinations are prepared by the college department directly responsible for the instruction of the course.

Questions?

Call Chemeketa's Salem campus information center.

399-5155

These written comprehensive tests cover all the basic information and skills required of a student who completes the course successfully. For some courses, a performance examination is also required. The cost for taking an exam is $2 per credit hour.

For more information about earning college credits by challenge examinations, contact the counseling center.

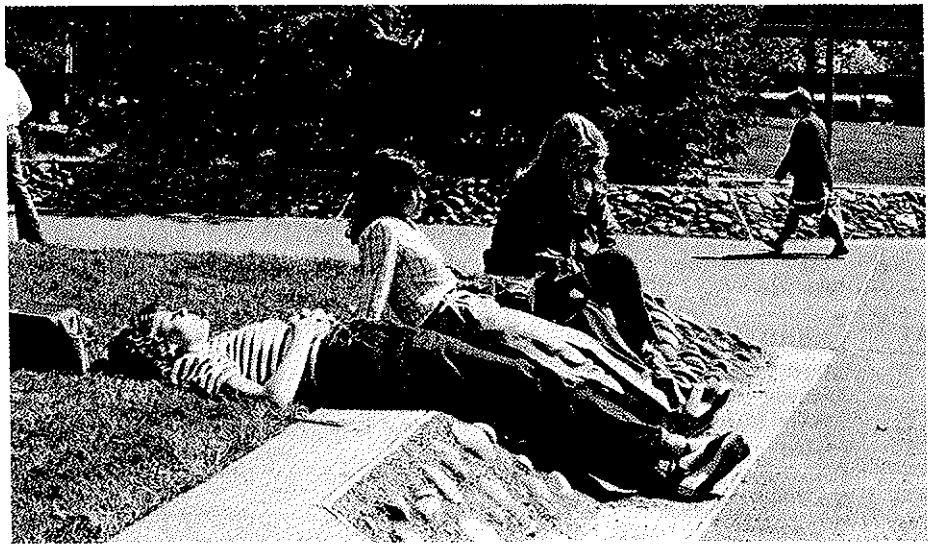
Credit for Prior Learning (399-5120)

In certain occupational programs, Chemeketa awards students up to 45 credit hours for knowledge and skills learned outside the classroom. This learning may be acquired through work experience, on-the-job training, volunteer service, non-credit courses or workshops, individual study, homemaking, and travel.

Independent Study (399-5075)

Chemeketa has an independent study plan to encourage and assist students who show an interest in and readiness to become self-directed learners. Under the direction of a faculty advisor, a student selects a topic which relates to his or her career or program goal and enters into a learning contract.

Content of independent study may include 1) study of a topic not covered in an existing course; 2) in-depth coverage of



a topic introduced in a course; 3) field studies; 4) study combined with tutoring sessions, regular meetings with instructors or seminars; 5) service activities.

Auditing Courses (399-5001)

Students who enroll in credit courses but do not wish to receive grades or credits may register as auditors. In order to audit a class, contact the registrar's office before the end of the fourth week of the term. Auditors pay full tuition fees.

Transcripts of College Credits (399-5001)

Graduates of Chemeketa are entitled to five free transcripts of credits from the registrar. Additional transcripts are available for a fee.

Withdrawal from College (399-5001)

Students who decide to withdraw from Chemeketa may obtain forms from the registrar, staff offices or the counseling center.

A student who leaves Chemeketa without filling out a withdrawal form is responsible for the final grades he or she receives. These will appear on the student's college transcript of credits.

Students who return the completed forms to the registrar's office within the first two weeks of the term will receive full refunds on the tuition and fees they have paid provided they have no outstanding obligations to the business office, library or other college department. Any obligations will be deducted from the refund. No refunds less than $5 will be made. Student insurance purchased through the college cannot be refunded.

Refunds to students paying tuition with funds issued through Chemeketa's financial aid office will be credited to students' financial aid accounts. However, any outstanding obligations to the college will be deducted from those credits.

Student Records (399-5001)

Permanent student records, grade reports, and requests for transcripts are processed and maintained by the registrar's office.

Affirmative Action Policy

It is college policy that discrimination or harassment on the grounds of race, color, sex, marital status, religion, national origin, age or handicap will not exist in any area, activity or operation of the college. Harassment is unwelcome behavior either verbal or physical in nature which meets any of these criteria: 1) submission to the conduct is either an implicit or explicit condition of employment or of successful course work, 2) submission or rejection of the conduct by an employee or student is used as the basis for decisions affecting that person's employment or success in course work, 3) the conduct has the purpose or effect of substantially interfering with an individual's work performance or class performance.

Persons having questions about the college's educational or employment practices relative to equal opportunity, or who feel that they have been discriminated against, may direct inquiries to the affirmative action coordinator, Carol Maga, building 2, room 216, 399-5121.

Miscellaneous Information

Motor Vehicles on Salem Campus (399-5023)

Chemeketa students and staff who own and/or drive motor vehicles on the Salem campus during the day are required to have college parking permits. These free permits are available at registration at the security office in building 22. Visitors may park in designated areas without permits.

Parking a motor vehicle on the campus without a proper permit may result in a fine. Students and staff are responsible for knowing the regulations for operating a motor vehicle on campus and are held responsible for any violations of those rules. This applies to any vehicle in their possession regardless of who is operating it.

Specific information on parking and traffic regulations is available at the security office in building 22.

Pets on Campus

Seeing-eye and hearing-ear dogs are the only animals which may be brought on the college campus.

About Student Services

Counseling
(399-5120)

Persons interested in educational, vocational, and personal counseling may contact Chemeketa's counseling center in building 2 on the Salem campus. People outside of the Salem area may make appointments with a counselor in Chemeketa centers in Dallas, McMinnville, Stayton, and Woodburn.

A district resident interested in career planning and decision making may consult with a Chemeketa counselor individually or enroll in a career/life planning workshop. Chemeketa has a computer terminal which provides current information on hundreds of careers and includes job descriptions, pay ranges, and job requirements.

Academic Advising
(399-5120)

Chemeketa's academic advisors help students plan and carry out their programs of study. At registration, each incoming day student on the Salem campus is assigned an academic advisor. Students who attend classes only in the evening are encouraged to visit the counseling center periodically for academic advising.

Student-Instructor Conferences

Students may confer with their instructors regarding class assignments and methods of study. Office hours are posted in each faculty office area or on office doors.

Skill-Building Classes
(399-5093)

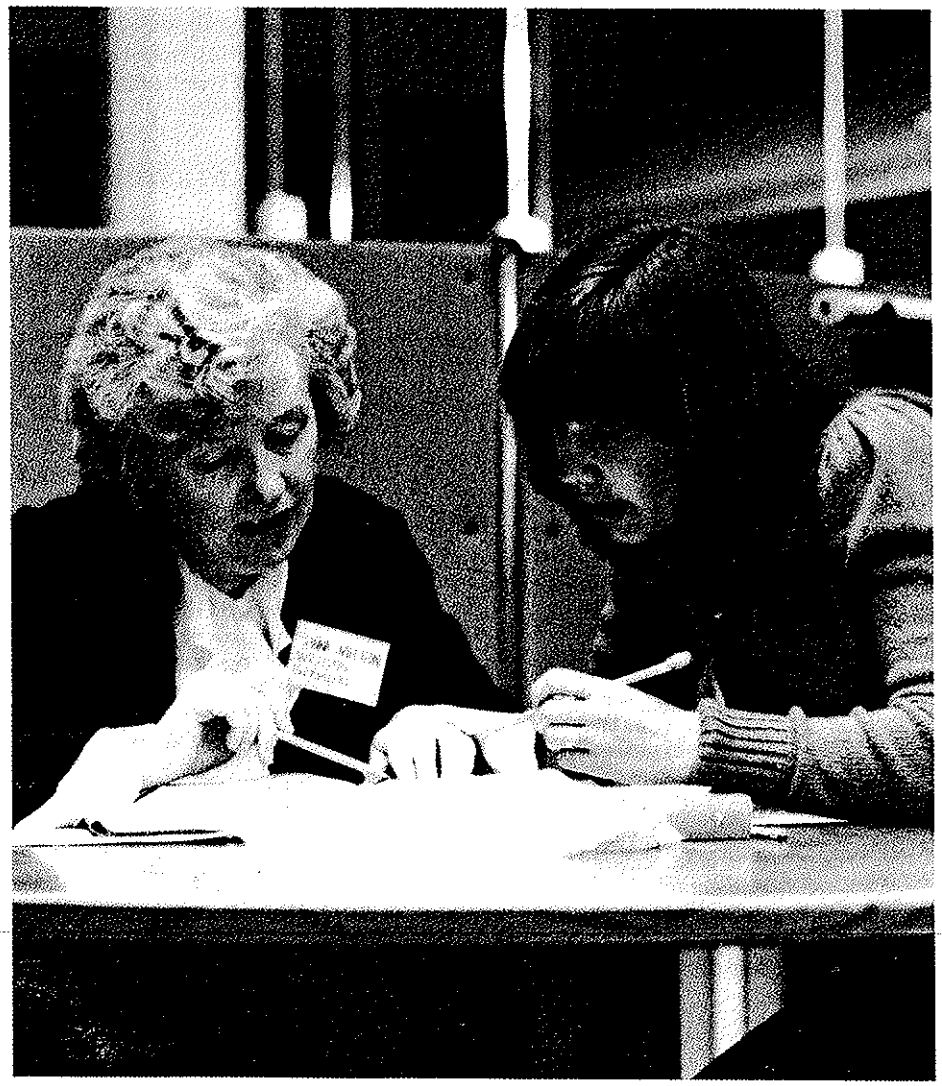
Chemeketa's center for developmental education in building 2 on the Salem campus offers classes to help students succeed in other college classes and programs. There are classes in reading, writing, mathematics, spelling, vocabulary development, study techniques, values clarification, and goal setting.

Tutoring Services
(399-5093)

Free tutoring is available in building 2 on a drop-in basis. For special needs or problems, students may contact the tutor program coordinator.

Bilingual Assistance

Bilingual students with limited English skills may receive help at the center for developmental education in building 2 on the Salem campus, in improving their knowledge and use of



written and spoken English, making career choices, and developing their personal growth.

Services on the Salem campus which may help persons whose native language is not English are:

1) Counseling center, 399-5120, for admissions and career planning assistance.
2) English as a Second Language program, building 40, 399-5216.
3) Refugee training program, building 39, 399-5142.

Ethnic Studies

Chemeketa offers a variety of courses, seminars, and workshops designed to increase awareness and appreciation of ethnic minorities, their cultures and contributions; and enhance the achievements of ethnic minority students by promoting a positive self-awareness and encouraging self-realization.

Ethnic studies courses employ a variety of approaches and formats. They may be interdisciplinary lower division college transfer courses or may be specifically designed for one or more occupational/technical programs. Chemeketa also offers short workshops to meet specific community requests. The focus of the courses varies according to the needs and requests of students.

Services for Handicapped Students (399-5120)

The counseling center in building 2 on the Salem campus provides information about services and facilities for students with handicapping conditions.

Chemeketa's major buildings on the Salem campus are designed to provide access for physically handicapped students. Parking spaces are reserved for handicapped persons.

Special help for deaf, hearing impaired and visually impaired students includes counseling, interpreting, note taking, tutoring, reading, and use of special equipment. Deaf and hearing impaired students may enroll in special classes in language development and basic reading. In addition, Chemeketa offers five levels of sign language classes. Call 399-5049 for information on services for deaf and hearing and visually impaired persons.

Veterans Services (399-5004)

Information on Veterans Administration policies, procedures, and approved programs of instruction is available from the veterans' clerk in the registrar's office. A veteran's application for certification and any necessary supporting documents (DD214, etc.) are processed according to VA regulations, and certification information is forwarded to the VA regional office in Portland. Usually this completes the application process for VA educational benefits. This application is separate from application for admission to the college.

Policy of Satisfactory Progress:

In accordance with a Veterans Administration directive, persons who receive veterans' educational benefits who are enrolled half-time (six credit hours) to full-time (12 credit hours) must comply with the following regulations:

1) Must not exceed 44 deficiency course units over a two-year period.
2) Must accumulate a minimum grade point average (GPA) of 2.0 in their programs. GPA is based on A=4, B=3, C=2, D=1, F=0.
3) Must make any changes which affect their certification status by the end of the fourth week of a term. After that veterans are responsible for completing all credit hours in which they are enrolled.

If veteran students fall below a 2.0 GPA or do not satisfactorily complete the required hours indicated above, the veterans' clerk advises them that they are on probation. If students fail to maintain the GPA and/or credit hour requirements for two consecutive terms, notice of unsatisfactory progress is recorded and forwarded to VA regional office in Portland.

Once placed on unsatisfactory progress, veterans must enroll for and complete one term before the veterans' clerk will submit their records to the VA for re-certification. During this term, veterans must maintain the same credit hour level as when certified and attain a minimum 2.0 GPA for the term.

Financial Aid (399-5018)

Students who cannot pay the full cost of attending Chemeketa may apply for financial aid. Through grants, loans, and/or part-time employment, families and students may add to their resources.

Applications for financial aid are available at the financial aid office in building 22 and the counseling center in building 2 on the Salem campus, and at Chemeketa centers in Dallas, McMinnville, Stayton, and Woodburn. Applications have two parts:

1) A Financial Aid Form published and processed by the College Scholarship Service, Berkeley, California. This form helps the college determine how much aid a student may receive.
2) Chemeketa's forms for the student's file.

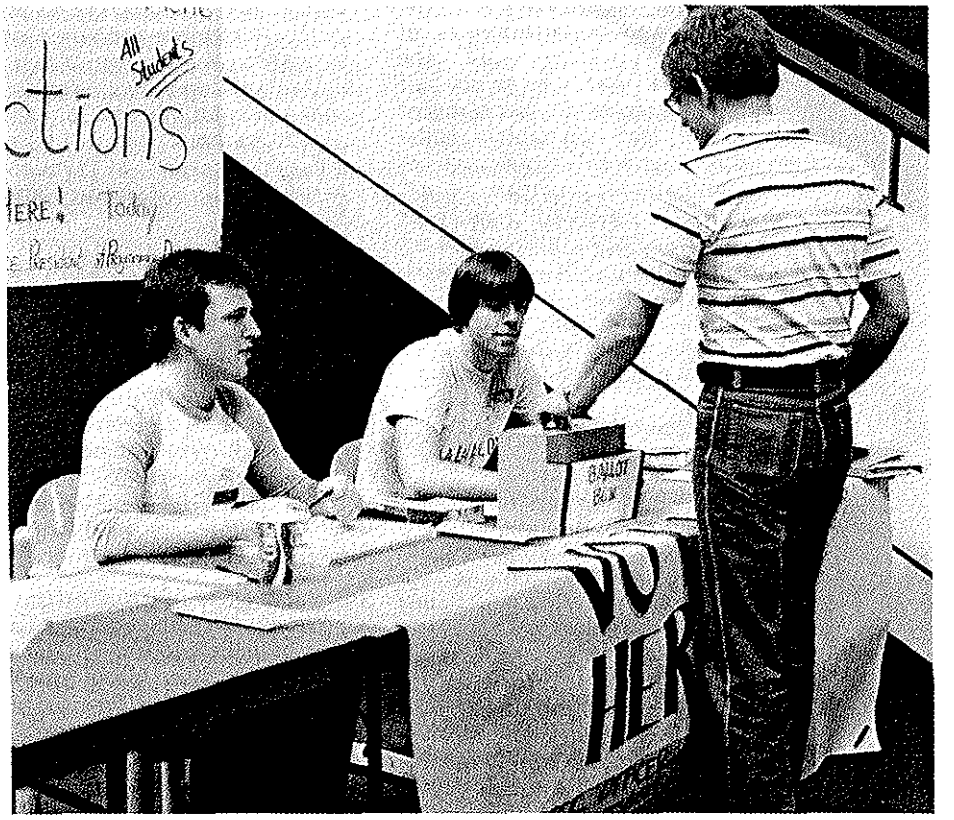
Applications are available and are processed the entire school year. However, as money is limited, the college recommends that students apply at least three months before the start of a term to find out how much money they will receive. All applicants are notified by letter whether or not they qualify for aid.

Persons planning to attend Chemeketa either part-time or full-time may be eligible for some financial aid. However, part-time students may apply only for Pell Grants.

To be eligible, part-time students must register for six or

more credit hours of classes. Full-time students must register for 12 or more credit hours of classes. Students who receive financial aid must complete these minimum class hours or repay the money they have received.

Of the financial aid resources listed below, the first seven require applicants to file Financial Aid Forms with the College Scholarship Service and prove their financial needs. Applicants for numbers 2 through 7 pay the College Scholarship Service a minimum processing fee of $11.



1. **Pell Grants**—$50 to $950 each year.
2. **Oregon State Need Grants**—$200 to $600 per year. May be transferred to other Oregon colleges and universities.
3. **Supplemental Educational Opportunity Grants**—$200 to $1800 per year for exceptional need.
4. **College Work-study**—on- and off-campus employment averaging 12 hours per week during school terms; pays minimum wage or higher.
5. **National Direct Student Loans**—long-term loans up to $1500 per year; average, $600. Interest is 5 percent; first payment due six months after leaving college.
6. **Nursing loans**—For first-year nursing students; apply before July 17, 1982.
7. **Nursing scholarships**—for second-year nursing students; apply before July 17, 1982.
8. **Guaranteed Student Loans**—low-interest loans available through banks and savings and loans. Up to $2500 per year. Interest is 9 percent; first payment due six months after leaving college.
9. **Chemeketa Tuition Grants**-one grant for a graduating senior from each high school in the college district; apply in the spring. Contact high school counselors.
10. **Chemeketa Endowment Loan Fund**—loans from $50 to $300 available the third to eighth weeks of each term; to be repaid in 30 days. Applications available at the financial aid office.
11. **Scholarships** — sponsored by local clubs, organizations and individuals. Applications available at the financial aid office.
12. **Deferred tuition**—for full-time students. Three equal monthly tuition payments arranged with the business office.

After a student's need and eligibility have been determined the financial aid office offers a financial aid package which draws upon the following sources, as funds are available, in this order:

1. Pell Grant
2. Oregon State Need Grant
3. Nursing scholarship
4. Nursing loan
5. Other scholarships
6. College Work-study
7. National Direct Student Loan
8. Supplemental Educational Opportunity Grant
9. Guaranteed Student Loan

Tuition and fees are deducted from the student's financial aid package on registration day each term. To continue receiving financial aid, full-time students must register for and complete at least 12 credit hours and must maintain a 2.0 grade point average. Three-quarter-time students must maintain the 2.0 average in at least nine credit hours and half-time students in at least six credit hours.

At the end of a term, if a student fails to meet the minimum credit hour and 2.0 grade point average requirements, the financial aid office reviews the student's progress and may cut off the aid or may allow the student one more term to meet the requirements. If at the end of two terms a student still does not meet the minimum requirements, the office denies further aid. A full-time student's aid may be reinstated if he or she pays tuition for one term, and meets the minimum full-time requirements.

Chemeketa's financial aid office provides information on how to apply for financial aid,

eligibility requirements, the rights and responsibilities of students receiving aid, the methods and frequency of making payments, the terms of loans, loan repayment schedules, general conditions of employment provided as aid, and the methods used for selecting, determining, and re-establishing a student's eligibility for financial aid. The office offers to help any Chemeketa student who has questions concerning funds and budgeting.

Job Placement (399-5026)

Students seeking part-time jobs while in school or employment after graduation may use Chemeketa's job placement service in the work related experience office in building 22 on the Salem campus.

The office posts job openings, researches job markets, coordinates on-campus employment interviews, helps students prepare resumes and applications, and keeps a placement file for each student looking for work.

Chemeketa regularly schedules job search seminars for people who are looking for work. The college also has video tapes on job search techniques which are available at the audiovisual department and the counseling center in building 2 on the Salem campus and at Chemeketa centers in Dallas, McMinnville, Stayton, and Woodburn.

Cooperative Work Experience (399-5026)

Cooperative Work Experience at Chemeketa is a personalized program which allows students to combine classroom studies with related job experiences. CWE coordinators work with students in this program.

Students may find jobs on their own or a CWE coordinator may help them locate positions. The college must approve work training sites. Job supervisors and students work together on individual training plans which relate to classroom studies.

The students may work either for pay or not.

This on-the-job training helps students establish references for future employment and gain firsthand looks at particular kinds of work while earning college credit. The number of hours on the job per week determines the number of credits earned.

Many of the college's vocational and technical programs include CWE either as an elective or as a graduation requirement.

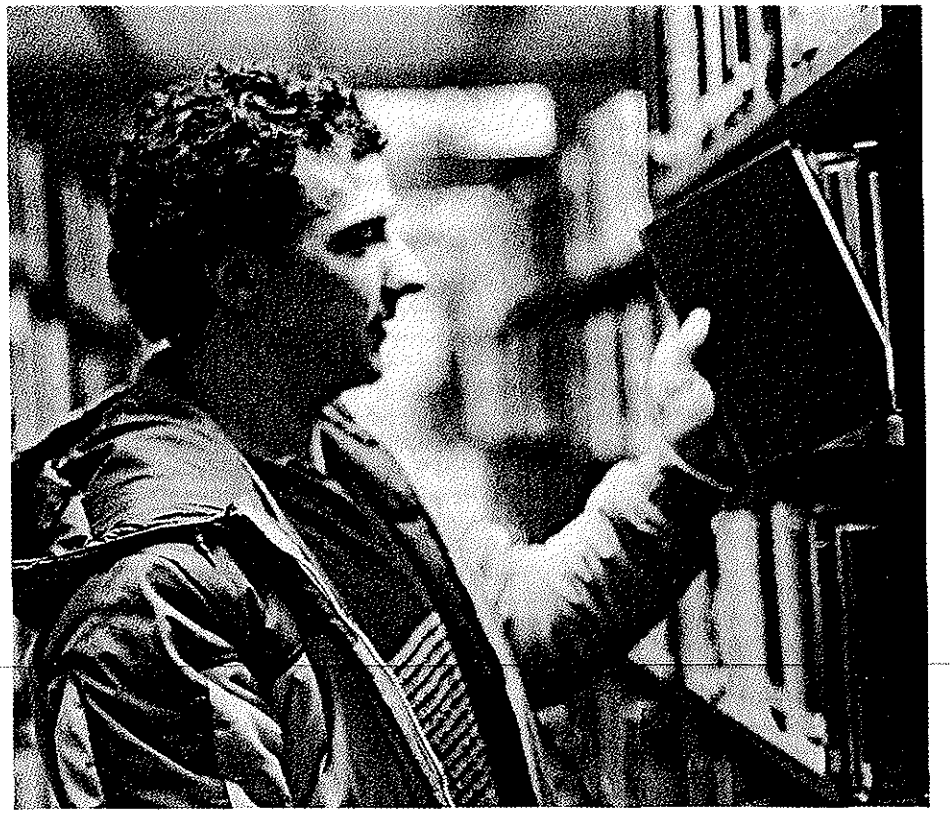
Library/Learning Resource Center (399-5043)

Chemeketa's learning resource center in building 2 on the Salem campus includes the library, audiovisual services, alternative learning systems, and the planetarium/multimedia theater. The library contains about 47,000 books and over 1,000 periodicals. The audiovisual department houses the college's non-print collection plus a wide variety of media resources. There is a television studio for producing instructional videotapes.

The office of alternative learning systems coordinates courses by television, telephone, newspaper, and home study.

Free programs for the public are presented in the planetarium/multimedia theater which also serves as a special classroom.

The college library is part of the Chemeketa Cooperative Regional Library Service, which includes 17 public libraries in the college district and the Oregon State Library. This cooperative tax-supported effort provides library service to district residents who do not have access to a local library. Among the benefits are a "universal" library card which may be used at any participating library, courier book service between libraries, reference service, and books-by-mail for residents who do not have access to public libraries.



About Student Life at Chemeketa

Student Activities (399-5116)

Chemeketa aims to meet the educational, recreational, and social needs of students with an integrated program of student activities developed in response to expressed student interests and needs.

With the guidance of the student activities office and the assistance of faculty members, students assume most of the responsibilities for Salem campus activities. They establish and administer most co-curricular activities, determine campus social programs, and help maintain the discipline essential to an academic community. Activities vary throughout the year, depending upon student interests.

Each student is encouraged to participate in activities which interest him or her. For more information, contact officers of student organizations and/or the student activities office in building 3 on the Salem campus.

Student Government (399-5117)

All Chemeketa students are members of the Associated Students of Chemeketa Community College (ASCCC). Aware that student activities are an integral part of a total education, ASCCC encourages all its members to participate in its programs as much as possible. Each ASCCC officer has special areas of responsibilities.

The **president** works closely with the student senate and represents ASCCC at official functions.

The **vice-president** presides over the student senate and oversees activities of campus clubs.

The **activities coordinator** helps plan ASCCC-sponsored events.

The **publicity coordinator** works with the activities coordinator in promoting and publicizing ASCCC-sponsored and campus club activities.

The **executive secretary** prepares agendas and keeps minutes of all ASCCC meetings.

The **business manager** is responsible for ASCCC financial records and expenditures and prepares the budget.

The **historian/parliamentarian** keeps all ASCCC records, makes final parliamentary decisions, and conducts assigned research.

The **student senate**, composed of 19 students from various curricula, meets weekly. All students are encouraged to attend the open meetings.

ASCCC Activities

ASCCC sponsors films, dances, concerts, excursions, lectures, and a variety of entertaining, educational, recreational, and cultural activities, planned for a variety of age and interest groups, campus- and community-wide.

Student Clubs and Organizations

The following clubs have been chartered by ASCCC and are active on the Chemeketa campus:

Agriculture Club—Open to students interested in agriculture.

American Society of Certified Engineering Technicians (ASCET)—Open to persons interested in careers in engineering technology. Members may continue to affiliate with the national organization after graduation.

American Welding Society, Student Chapter—Aims to increase student awareness of the welding industry and enhance student learning through studies of results of welding research and the development of welding processes.

Art Club—For students interested in the promotion of the fine arts on campus.

Automotive Club—Sponsors special projects for students interested in the automotive field.

Board Games Club—Promotes games and participation in tournaments. Open to students, staff members, and their spouses.

Bowling Club—Open to students, staff members, and their spouses.

Chemeketa Arrows—Invites participation in the game of darts. The club has a dart board in the student union, building 19.

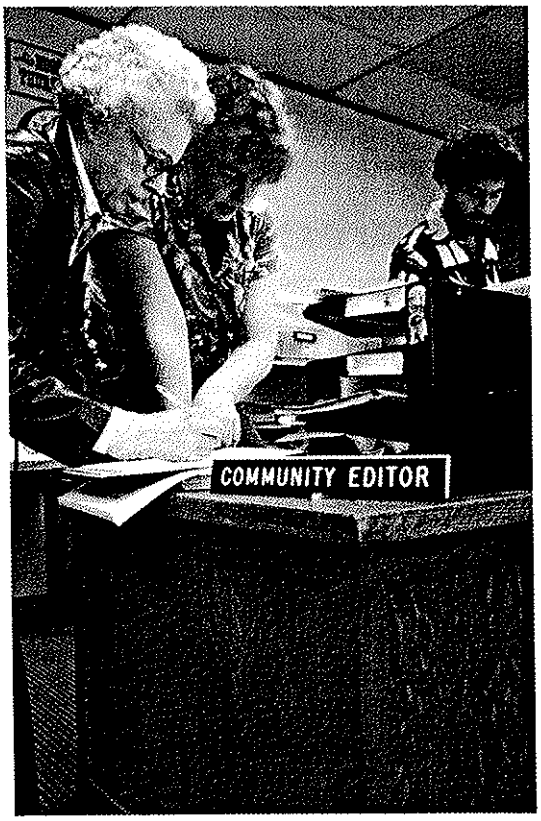
Chinese Club—Promotes interest in the Chinese language and culture and conducts a Chinese study program.

Christian Fellowship Association — Non-denominational Christian fellowship featuring guest speakers and music.

Data Processing Club—Endeavors to strengthen confidence, improve scholarship, and develop data processing skills.

Drama Club—For students and staff members who want to participate in dramatic activities, mostly short plays.

Fencing Club—Promotes the art of fencing, advances the skills of present and future fencers, and represents Chemeketa in fencing tournaments.



Fire Protection Club—Publicizes Chemeketa's fire protection program through public service and provides social activities for its members.

Forestry Club—Promotes, publicizes, and tries to create public awareness of the forest technology program and industry. Represents and promotes the needs of Chemeketa's forest technology students.

Gourmet Club—Promotes gourmet cooking, provides public service, encourages individual and group improvement, and brings together food service students and alumni.

Latter Day Saints Organization — Organized for the fellowship of members of the Church of Jesus Christ of Latter Day Saints but open to anyone.

Oregon Student Public Interest Research Group (OSPIRG)—Provides opportunities for students to research issues and to advocate consumer, environmental, and human rights causes.

Phi Beta Lambda—A national service organization for students in post-secondary schools, colleges or universities who are preparing for careers in business or business education.

Ski Club—Promotes interest and involvement in snow skiing. The club frequently organizes weekend ski trips.

Society of Manufacturing Engineers (SME)—Promotes interest in the advancement of the manufacturing sciences.

Spirit Club—Promotes spirit at athletic events and supports Chemeketa's rally squad.

Sports Club—Promotes sports and spirit for Chemeketa's sports program and provides financial aid to encourage local athletes to attend Chemeketa.

Student Emergency Medical Technician Association of Chemeketa (SEMTAC) — Promotes emergency medical technology and Chemeketa's program, public service, individual and group improvement, and employment.

Student Nurses of Oregon (SNO)—The Salem chapter of Student Nurses of Oregon, open to students in the associate degree nursing program. Assists in preparing student nurses to assume professional responsibilities.

Table Tennis Club — Encourages participation in table tennis and promotes tournaments in the community and with other community colleges.

Women for Change—A resource for women at Chemeketa. Provides programs of interest to women and of benefit to the community and offers support and assistance.

Writers Club—Publishes a journal, *Before the Sun*, each spring. Open to students and staff. Schedules frequent readings to allow members to share their work.

New Ideas Welcome

Students interested in organizing new clubs or organizations may contact the student activities office in building 3 for information on obtaining a charter.

Ideas for activities and excursions are also welcome. Planning is done with students' interests foremost.

Student Newspaper (399-5134)

Chemeketa's student newspaper, *Courier 4*, is published weekly during fall, winter, and spring quarters. Written and prepared by journalism students and printed by students of the visual communications program, the newspaper has established a consistently high rating in national competition (Associated Collegiate Press). *Courier 4* is an associate member of the Oregon Newspaper Publishers Association.

Students interested in working on the student newspaper as reporters, editors or photographers may apply for staff positions through the newspaper advisor.

Intramurals and Athletics (399-5081)

Throughout the year, Chemeketa students participate in a variety of intramural activities including bowling, volleyball, softball, basketball, skiing, and golf.

Participation in intercollegiate sports is based on the requirements of the National Junior College Athletic Association. Chemeketa is a member of that association and of the Oregon Community College Athletic Association whose members abide by the rules of the NJCAA as a minimum standard.

Participation in interscholastic sports requires special insurance coverage and a physical examination, provided by the college at no cost to the student. Participating students may obtain information at the physical education department office in building 7.

Chemeketa fields teams in men's and women's basketball, men's and women's track, and women's volleyball.

Student Rights and Responsibilities

The following Student Rights and Responsibilities document was approved by Chemeketa's Board of Education in 1977.

1.0 **Preamble**

Chemeketa Community College is dedicated to the philosophy that the greatest well-being accrues to the individual, the community and the society only when each individual is accorded the opportunity to define and pursue legitimate interests and discover and develop abilities to the maximum of individual potential.

Freedom to teach and freedom to learn are inseparable facets of academic freedom. The freedom to learn depends upon appropriate opportunities and conditions in the classroom, on the campus, and in the larger community. College policy protects students from discrimination or harassment on the grounds of race, color, sex, marital status, religion, national origin, age or handicap in any area, activity or operation of the college. For your reference, this policy is published on page 8. Students should exercise their rights and freedom with responsibility.

The College and students are members of a democratic society and are responsible to the laws, rights and responsibilities of the society. The college sets direction and solves problems on the campus according to the laws, rights and responsibilities of the society. When those documents are not specific, they will be supplemented by the decisions or policies adopted by the College Board.

2.0 **Definitions**

2.1 **College** shall mean Chemeketa Community College.

2.2 **College Board** shall mean the Board of Education.

2.3 **Staff** shall mean any employee of the College, both full-and part-time, management, professional staff, and classified.

2.4 **Student** shall mean any person enrolled in any class at Chemeketa Community College.

2.5 **Associated Students of Chemeketa Community College** (ASCCC) shall mean the official organization of the student body, made up of currently enrolled students at Chemeketa Community College.

2.6 **ASCCC Student Senate** shall consist of student representatives of the student body elected by the students according to the ASCCC Constitution and Bylaws.

2.7 **Official club** and **organization** shall mean a group of students and staff who have complied with the formal requirements of the College and ASCCC to gain recognition to operate on the campus as an official organization.

2.8 **The College Affairs Committee** shall be composed of students and staff and will conduct hearings on violations of rights and responsibilities.

3.0 **Rights**

3.1 Access to education

3.1.1 Within the limits of its resources and facilities Chemeketa Community College shall be open to applicants who are qualified according to current admission requirements.

3.1.2. Each student has the right to be informed about class requirements, College policy and procedures.

3.1.3 No student's access to education shall be inhibited by prejudiced or capricious academic evaluation. Students shall not be evaluated on the basis of opinions or conduct in matter unrelated to educational standards.

3.1.4 Each student shall have the right of participation in evaluation of course content and educational standards.

3.1.5 If a student is charged with a violation of law not related to his activities as a student, the matter shall be of no disciplinary concern to the College, unless the student is incarcerated and cannot comply with educational requirements.

3.2 Access to facilities

3.2.1 Students, official clubs, and organizations may utilize available College facilities according to College policy and procedures.

3.3 Provisions of confidentiality

3.3.1 Student records and information are protected and governed by federal and state laws and Chemeketa Community College Student Records Policy.

3.3.2 Information about student views, beliefs, private activities and political association which is acquired or learned in the course of their work is to be treated with professional judgment and confidentiality.

3.3.3 Professional evaluations and judgments of ability and character may be provided under appropriate circumstances, with the prior knowledge and consent of a student.

3.4 Provisions of association

3.4.1 Policy governing clubs and organizations shall be established by the College Board. Procedures for establishment, maintenance, and financial management of clubs and organizations shall be established by the College and ASCCC Student Senate.

3.4.2 Official club and organization membership shall be open to students without regard to race, national origin, sex, age, marital status, religion or handicap.

3.4.3 Students, clubs or organizations shall not speak or represent a point of view on behalf of the College without express authorization from the College President, or designee, or may not represent the views of ASCCC without express authorization from the ASCCC Student Senate.

3.5 Provisions of expression

3.5.1 Students may express their views on College policy or matters of general interest, and may support causes by any orderly means which does not disrupt the operation of the College.

3.5.2 In the classroom, a student may take exception to the information or views offered in the course of study and reserve judgment about matters of opinion, but is responsible for learning the content of the course.

3.5.3 Chemeketa Community College, as publisher, bears in conjunction with the staff of student publications, the responsibility for the content of the publication. The publication shall adhere to all applicable Oregon statutes, such as those regarding mass communications.

3.5.4 The student newspaper shall be governed by the "Student Newspaper Policies and Procedures" and shall follow the Canons of Journalism (American Society of Newspaper Editors).

3.5.5 Student publications shall state that the opinions expressed are not necessarily those of the College or student body.

4.0 **Responsibilities**

4.1 Each student has the responsibility to obey and follow College policy and procedures and the ASCCC Constitution and Bylaws. The ASCCC Constitution, Bylaws, College policy and procedures, shall provide means for student involvement and participation in the formulation and alteration of College policies and procedures regarding academic and student affairs.

4.2 Students are responsible to respect the rights of others and not interfere with the exercise of those rights.

4.3 Each student is responsible for the effects of his/her decisions and behavior. Examples of decisions and behavior which become destructive to the educational goals and processes of Chemeketa Community College include, but are not limited to, the following:

4.3.1 Failure to maintain complete academic honesty, e.g., cheating, plagiarism, or knowingly furnishing false information.

4.3.2 Falsification, forgery, alteration or misuse of college documents, records, keys, ASCCC card or other student identification.

4.3.3 Unauthorized entry or use of College-owned or controlled property, equipment, facilities, and blocking access to or from such areas.

4.3.4 Hazing, physical or verbal, that injures, degrades, harasses, or disgraces another person.

4.3.5 Failure to comply with directions of College staff acting in the performance of their duties.

4.4 The student is responsible to maintain standards of academic performance and contribute to the learning environment of the College.

5.0 **Procedural Due Process for Violations of Rights and Responsibilities**

5.1 Student Violations

5.1.1 The persons involved shall attempt to resolve the issue by personal contact, if possible.

5.1.2 If no agreement is reached, the persons involved shall then consult with the Dean of Student Personnel Services who will then attempt to resolve the issue.

5.1.3 If unresolved, the charges concerning the alleged violations shall be referred to the College Affairs Committee for a hearing. The Committee shall proceed as follows:

5.1.3.1 The Committee chairperson must notify the charged person in writing within one week of the hearing time, place and date and must include the specific alleged violation.

5.1.3.2 The person charged with violation then has 48 hours in which to reschedule the meeting time.

5.1.3.3 The person may be represented by counsel and may present evidence and witnesses of his own choosing.

5.1.3.4 If the person charged fails to appear for the hearing or agrees not to contest the case, in writing, the Committee shall review the evidence and prescribe the appropriate action.

5.1.3.5 The Committee shall recommend appropriate action to the College President, such as:

A. Statement of fact: a written report of the facts indicating there has been no violation.

B. Admonition: an oral statement to a person that is violating, or has violated, College policy or procedures.

C. Warning: notice that continuation or repetition of conduct found wrongful may be cause for more severe sanctions.

D. Censure: a written reprimand for violations with or without stipulation regarding forfeiture of privileges.

E. Restitution: appropriate restoration or amends.

F. Suspension: dismissal from the College for a specified period of time.

G. Expulsion: permanent or conditional separation from the College. The conditions of readmission, if any, shall be stated in the order of expulsion.

5.1.3.6 An appeal must be requested within one week of the College President's action. Minutes of the College Affairs Committee hearing shall be forwarded to the College Board Chairperson. The College Board may schedule a hearing to determine final action.

5.2 College Violation

5.2.1 Students who feel they have been aggrieved by a policy, procedure, staff member, or College action, have the following procedural due process available to them:

5.2.1.1 If a student believes to have been unfairly treated and has a grievance against a policy, procedure, staff member, or College action, the student should first discuss the matter with the person or persons involved.

5.2.1.2 If the student feels that a satisfactory solution cannot be reached, assistance should be requested of the Dean of Student Personnel Services.

5.2.1.3 If the student is not satisfied with the attempted resolution, the person may request a hearing of the College Affairs Committee.

5.2.1.4 The committee shall proceed as follows:

A. The Committee Chairperson shall notify, in writing, the members of the College Community involved within one week of the hearing time, place and date, and must include the specific alleged violation.

B. The hearing must be rescheduled within 48 hours.

C. Evidence and witnesses may be presented and heard.

D. The Committee shall recommend appropriate action to the College President.

5.2.1.5 An appeal must be requested within one week of the College President's action. Minutes of the College Affairs Committee hearing shall be forwarded to the College Board Chairperson. The College Board may schedule a hearing to determine final action.

6.0 **Amending Procedures**

6.1 This Policy shall be amended through the following procedure:

6.1.1 Proposed amendments will be submitted to the Dean of Student Personnel Services. The amendments shall be reviewed by on-campus groups and responses forwarded to the College President.

6.1.2 The College Board shall review and take action on amendments.

Community Education

About Community Education

Chemeketa's campus is the entire college district, for the college carries instruction to people where they live.

Committed to helping adults find self-fulfillment through education, Chemeketa offers a variety of credit and non-credit classes in many locations throughout the district. Classes, workshops, seminars and special programs meet on the Salem campus and at other locations in Salem; Chemeketa centers in Dallas, McMinnville, Stayton, and Woodburn schedule classes in a number of communities in their areas. These classes meet during the day, evening, and on weekends. More than 31,000 persons enrolled in these classes during the 1980-81 academic year. Chemeketa offers many classes in response to requests.

Call for information

Salem community education classes, 399-5135, campus, building 17

Classes for seniors, 399-5139, campus, building 17

Chemeketa Dallas Center
623-5567
1251 Main Street

Chemeketa McMinnville Center, 472-9482
500 N. Hill Road

Chemeketa Stayton Center
769-7738
756 W. Locust Street

Chemeketa Woodburn Center, 981-8820
965 Boones Ferry Road

Classes and Services

Among the kinds of classes and services the college offers throughout the district are the following:

Career preparation and advancement for persons interested in learning new job skills or in upgrading their skills as employees or managers. They may choose from a variety of courses in many areas of instruction. Many are non-credit classes, but some may be taken for credit toward a degree or certificate.

Chemeketa also has a three-year farm business management program for farmers and their spouses, a three-year small business management program, and a one-term nursing assistant program.

College transfer courses for students who wish to go on to four-year colleges and universities. Both general studies and liberal art courses in many fields are scheduled throughout the college district for the convenience of part-time students.

A counselor visits Chemeketa centers regularly. Contact the nearest center for information.

Contract services for special programs and courses for business, industry, government, and civic and social groups. Many agencies use this service to provide specialized training for employees at minimal cost. The college encourages business and industrial employees to request specialized training and educational programs.

Classes for older adults are held during daytime hours and at convenient locations.

The college issues Golden Age cards to district citizens 62 years of age and older, allowing reduced tuition for classes and free or reduced admission to college-sponsored films, dramas, concerts, and athletic events.

Eligible adults may apply for Golden Age cards in building 17 on the Salem campus, at Chemeketa centers outside Salem, or at the first class they attend.

Special events include one-day workshops, mini-series, tours, field trips, and informal noon brown bag lectures.

Registration

Persons enrolling in community education classes may register at the first class session, except for limited enrollment courses which require early registration. For the 1982-83 academic year, tuition for credit classes is $18 per credit hour, and for non-credit classes approximately $1 for each hour a class meets with a minimum charge of $5.

Programs of Study

Basic Skill Development and High School Completion

Chemeketa offers instruction in basic academic skills and/or an opportunity for a person to earn a high school diploma or its equivalent.

These programs are for adults. Students between 16 and 18 years of age are admitted only with releases from the high school districts in which they reside.

General Educational Development (GED) (399-5093)

Free development skills classes are taught in many communities in the college district. Persons who lack the equivalent of a high school diploma and/or need to improve their English language skills may enroll any week and progress at their own pace with individual instruction. Classes are free, but there is a charge for materials.

GED tests are given in Salem, McMinnville, and Woodburn. Students who pass GED tests receive high school diploma equivalency certificates.

High School Completion (399-5115)

Persons who wish to earn credits toward a high school diploma may do so at Chemeketa. Some of the classes also carry college credits, but students usually receive more individual help and take more lab hours than in college level classes.

Persons in this program may transfer credits and competencies from former high schools. They may also receive credits for some of their life experiences. Among these might be skills and knowledge they learned on a job, doing volunteer work, managing a home, and serving in a branch of military service. Chemeketa staff evaluate these experiences to award credits.

Twenty-one credits and 44 competencies are required to complete the high school diploma program.

English as a second language (399-5216)

Chemeketa offers classes for adults interested in learning to understand, speak, read, and write English or improve those skills. Emphasis is on pronunciation, vocabulary development, and English structure. Chemeketa offers free day and night classes throughout the district.

Call for information

Salem campus:

English as a Second Language, 399-5142
GED classes, 399-5093
GED testing and information, 399-5120
High school completion, 399-5115
or
call a local Chemeketa center

College Transfer Courses

A number of Chemeketa's credit classes may be transferred to higher education institutions in Oregon.

Students planning to continue at Oregon four-year colleges and universities may transfer lower division credit hours from Chemeketa. (Some of the college's vocational and technical programs also include college transfer credit courses.)

The suggested courses of study listed below are included in alphabetical order in the outlines of college programs in this catalog. The curricula are adapted from the most recent edition of the publication entitled "Transfer Programs," which has been approved by the Oregon State System of Higher Education. However, it is recommended that students inquire at the college they plan to attend to be sure that the information is up-to-date.

Agriculture
Anthropology
Art
Biology
Botany
Business Administration
Business Education
Chemistry
Chiropractic
Computer Science
Economics
Education
Engineering
English
Foreign Languages
Forestry
General Studies
Geology
Health
Health Education
History
Home Economics
Journalism
Mathematics
Nursing
Philosophy
Physical Education
Physics
Political Science
Pre-Professional Study
(medicine, dentistry, veterinary medicine)
Psychology
Sociology
Speech
Zoology

Students wishing to pursue a field not listed in this catalog may be able to work out a satisfactory program of study by consulting with a Chemeketa counselor and the four-year institutions to which they plan to transfer.

Students planning to transfer credits toward bachelor's degrees should

1) Contact the senior college they plan to attend to check entrance requirements and the suggested freshman and sophomore courses required in their chosen fields.
2) Confer with counselors and advisors at Chemeketa prior to registration.
3) Check with the senior college a term or two before completing work at Chemeketa to make sure they are meeting all the requirements.
4) Apply for admission and transfer credits to the senior institution.

Four-year colleges and universities will accept up to 108 lower division credits. In most cases, all of these may be transferred from Chemeketa. The college tries to keep courses current with those at Oregon's four-year institutions.

Associate in Arts Degree

Students taking college transfer classes may also wish to earn an Associate in Arts degree at Chemeketa. The requirements for the Associate in Arts degree are listed on page 6.

Classes which meet AA degree course requirements include:
English composition—six credit hours Wr121, 122, 123 or 227
Personal health—one term He250
Physical education—five terms any PE180, 185, 190, 194, and 294 classes. Students should enroll in only one PE class per term as some four-year institutions accept no more.

Humanities—one sequence
Art115, 116, 117
Art204, 205, 206
Art231, 232, 233
Art255, 256, 257
Art231, plus any six hours of Art280s and/or Art290s
Eng101, 102, 103
Eng104, 105, 106
Eng107, 108, 109
Eng201, 202, 203
Eng253, 254, 255
Eng105, 106, 261
FA255, 256, 257
GL101, 102, 103
GL107, 108, 109
J224, 225, 226
MS251, 252, 253
Mus111, 112, 113
Mus201, 202, 203
Phl201, 202, 203
R201, 202, 203
RL101, 102, 103
RL107, 108, 109
RL201, 202, 203
RL207, 208, 209
Sp111, 112, 113
Sp112, 113, 114
TA121, 122, 123
Wr241, 242, 243

Mathematics or science—one sequence
Mth095, 101, 102, 103, 106, 133B (three make a sequence)
Mth200, 201, 202, 203 (three make a sequence)
Bi101, 102, 103
Bi121, 122, 124
Bot201, 202, 203

Ch204, 205, 206
Ch101, 102, 103
Ch104, 105, 106
Ch204, 205, 206
Ch226, 227, 228

G101, 102, 103
G201, 202, 203
GS104, 105, 106
GS207, 208, 209

Ph201, 202, 203
Zoo201, 202, 203

Social science—one sequence

Anth101, 102, 103
Anth207, 208, 209
BS202, 203, 204
Ec201, 202, 203

Geog105, 106, 107

Hst107, 108, 109
Hst157, 158, 159
Hst201, 202, 203
Hst257, 258, 259

PS201, 202, 203 or 205
Psy201, 202, 203

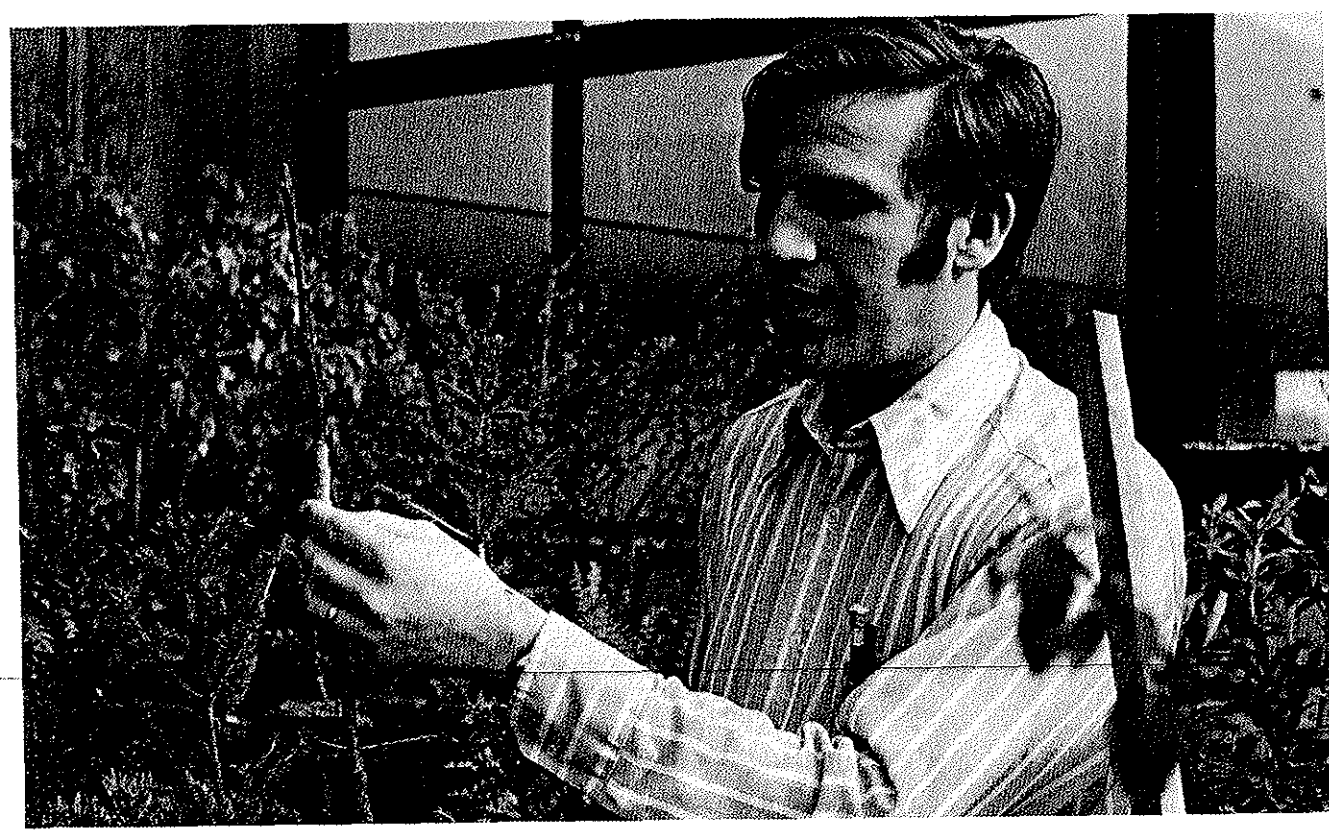
Soc204, 205, 206
WS101, 102, 103

Occupational Programs

Chemeketa emphasizes vocational and technical education. The college offers occupational training in more than 40 areas. In most of these fields students may earn Associate in Science degrees by meeting requirements of two-year programs. There are also a number of one-year programs leading to Certificates of Completion.

These occupational programs are listed on the following pages along with college transfer curricula.

- Accounting
- Agriculture
  - Agribusiness
  - Crop Production
- Automotive Technology
  - Automotive Mechanics
  - Automotive Parts Sales
- Banking and Finance
- Building Inspection
- Civil/Survey Technology
  - Civil-Structural Engineering
  - Survey Technology
- Clerical Technology
- Computer Operations
- Computer Programming
- Criminal Justice
- Dental Assisting
- Drafting Technology
  - Drafting
  - Mechanical Design
- Early Childhood Education
- Educational Aide
- Electronics Technology
- Emergency Medical Technology
- Farm Business Management
- Fire Protection Technology
- Food Service Management and Commercial Food Production
- Forest Technology
- Human Resource
- Industrial Technology
- Machine Technology
  - Machine Tool Operations
  - Machine Mechanical Technology
- Management
  - Records Management
- Medical Assisting
- Nursing
- Office Occupations
- Real Estate
- Secretarial/Office Administration
- Silicon Technology
- Small Business Management
- Visual Communications
- Welding Technology
  - Welding
  - Welding Fabrication



Accounting

The Accounting curriculum offers a core of accounting, business, and general education courses to train graduates for entry level positions as full cycle bookkeepers, accounting clerks or junior accountants in government or private industry. The program emphasizes specialized knowledge of business. All of the classes may be taken at night as well as during the day.

Students in the program must reach certain required proficiencies in English, mathematics, and typing. Initial placement in English and mathematics courses is based upon results of tests administered by Chemeketa's counseling center.

Students may enroll in BA280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

Students may earn an Associate in Science degree upon successful completion of the required 99 credit hours.

Course No.	Course Title	Credit Hours
Term 1		
	English (per placement test)	3
Math061	Business Mathematics	
	or	
	College transfer math elective	3
	Psychology or sociology elective	3
BA211	Financial Accounting I	4
BA101	Business Environment	4
OA061	Introduction to Calculators	2
Term 2		
BA214	Business Communications	3
BA212	Financial Accounting II	4
	Psychology or sociology elective	3
OA121	Typing I	3
Math062	Applied Business Math	
	or	
	College transfer math elective	3
Term 3		
BA252	Office Support Systems	3
BA213	Managerial Accounting	4
	Psychology or sociology elective	3
BA054	Governmental Accounting	
	or	
	Business elective	3
CS131	Introduction to Data Processing	3
Term 4		
BA056	Intermediate Financial Accounting I	4
BA226	Business Law I	3
BA216	Income Tax Accounting	3
Ec201	Principles of Economics	
	or	
Ec100	Outline of Economics	3
	Business elective	3
Term 5		
BA057	Intermediate Financial Accounting II	4
BA222	Financial Management	3
BA206	Business Management Principles	3
BA215	Cost Accounting	3
BA280	Cooperative Work Experience	
	or	
	Business elective	3
Term 6		
BA058	Intermediate Financial Accounting III	4
BA059	Auditing	3
Wr227	Technical Report Writing	3
Sp111	Fundamentals of Speech	
	or	
Sp130	Business and Professional Speaking	3
BA280	Cooperative Work Experience	
	or	
	Business elective	3

Agriculture

(college transfer)

These courses have been suggested by the school of agriculture of Oregon State University. Students may transfer these college credits into most of the major curricula offered by the school of agriculture at the junior level and complete baccalaureate degree programs within an additional two years. Students who wish to major in fisheries science, food science and technology, and wildlife science, should transfer at the end of the first year at Chemeketa.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

Oregon State University will accept 45 credit hours of vocational agriculture courses from the two year program at Chemeketa in its general agriculture or agriculture education programs. These may be accepted as general technical electives.

First Year	Term 1	2	3
Ch104, 105, 106, General Chemistry	5	5	5
Mathematics (per placement test)	4	4	4
Wr121, English Composition	3		
Communication skill requirements		3	3
Physical education	1	1	1
Bot201, 202, 203, General Botany			
or			
Zoo200, 201, 202, 203, General Zoology			
or			
Bi101, 102, 103, General Biology			
or			
Humanities requirements	3-4	3-4	3-4
Second Year	**4**	**5**	**6**
Physical science electives	4	4	4
Ec201, 202, 203, Principles of Economics	3	3	3
Biological science and/or humanities requirements	3-4	3-4	3-4
Mathematics	4	4	4
Electives	3	3	3

Mathematics requirements differ for the various areas of agriculture.

Agriculture Technology

Chemeketa's Agriculture Technology program has two options: agribusiness and crop production. Part of Chemeketa's 160-acre Salem campus is used as an agricultural laboratory, supplementing classroom instruction.

Agribusiness deals with business management in agriculture. The curriculum is for students who plan to return to farming with a sound business management emphasis or who are interested in careers in the broad field of agribusiness or in areas which support agricultural production such as sales, fertilizers and chemicals, credit, record keeping, and others.

Crop Production concentrates on agricultural production or related service occupations such as those listed under Agribusiness.

Students in both options take 47 required credit hours of core curriculum the first year. After successfully completing an additional 47 to 49 required credit hours during the second year, a graduate earns an Associate in Science degree.

Students may enroll in Agr280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

Course No.	Course Title	Credit Hours
Term 1		
Math051	Basic Mathematics (per placement test)	3
Agr050	Introduction to Agriculture	1
Agr051	Introduction to Oregon Soils	4
Agr061	Plant Science	4
Com051	Communication Skills I (per placement test)	3
Term 2		
Math052	Introduction to Algebra and Geometry (per placement test)*	3
Agr052	Soil Management	4
Agr070	Pesticide Safety and Regulations	2
Agr089	Farm Records	3
	Technical electives	4
Term 3		
CS101	Computer Environment	3
Agr071	Weed Identification and Control	3
Agr055	Irrigation and Drainage	4
Agr062	Plant Identification (Agricultural and Ornamental)	3
	Technical electives	3
	Recommended electives: Agr054 Farm Surveying and Measurement	3

Second Year-Agribusiness Option

Term 4		
Agr086	Agricultural Economics and Farm Management	3
Psy101	Psychology of Human Relations	3
Agr053	Fertilizers and Plant Nutrition	4
BA238	Salesmanship	3
	Technical electives and/or	
Agr280	Cooperative Work Experience	3
Term 5		
AH071	Multimedia First Aid	1
Agr087	Agricultural Marketing	3
Com052	Communication Skills II or	
Com053	Technical Report Writing*	3
	Technical electives and/or	
Agr280	Cooperative Work Experience	3
	Agriculture electives	6
	Recommended electives: Agr077 Orchard Production and Practices, Agr057 Farm Equipment Management and Maintenance	4
Term 6		
BA101	Business Environment	4
Agr088	Agricultural Finance and Credit	3
Agr280	Cooperative Work Experience	6
	Technical electives	5

* With approval of program director.

Second Year - Crop Production Option

Term 4		
Agr066	Field Crop Production	4
Agr053	Fertilizers and Plant Nutrition	4
Agr072	Plant Diseases	4
	Technical electives and/or	
Agr280	Cooperative Work Experience	4
	Recommended electives: Agr086 Agricultural Economics and Farm Management, Agr064 Nursery and Greenhouse Operations	3
Term 5		
Com052	Communication Skills II	3
AH071	Multimedia First Aid	1
Agr077	Orchard Production and Practices	4
Agr057	Farm Equipment Management and Maintenance	4
	Technical electives	4
	Recommended electives: Agr087 Agriculture Marketing, Agr065 Nursery & Greenhouse Problems	3
Term 6		
Agr067	Vegetable Crop Production	4
Agr073	Agricultural Insects	4
Agr280	Cooperative Work Experience	6
	Technical electives	3
	Recommended electives: Agr088 Agricultural Finance and Credit, Agr063 Plant Propagation	4
Agriculture electives		
Agr068	Seed Crop Production	4
Agr084	Elevator Operations	2
Agr083	Seed Quality and Testing	4
Agr059	Construction of Farm Building and Codes	3
Agr056	Soil Preparation Equipment Operation and Maintenance	3
Agr058	Spray Equipment Operation and Maintenance	3
Agr064	Nursery and Greenhouse Operations	3
Agr080	Grape Production and Management	3
Agr078	Small Fruit Production	4
Agr079	Christmas Tree Production	3
Agr063	Plant Propagation	4
Agr065	Nursery and Greenhouse Problems	3
Agr069	Introduction to Agricultural Microbiology I	4
Technical electives		
Aum091	Power Systems	4
Wld077	Welding	2

Students may select other technical electives with the approval of the lead instructor.

Anthropology
(college transfer)

These courses have been approved by the University of Oregon, Oregon State University, and Portland State University for students who plan to transfer college credits into a major program in anthropology, and by Eastern Oregon State College for students planning to transfer into a combined major in anthropology and sociology.

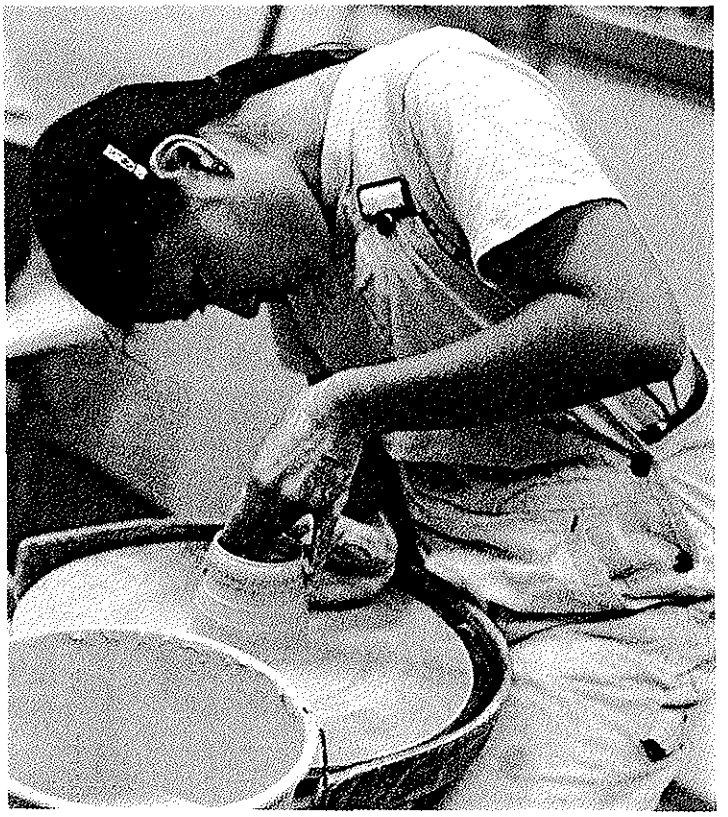
The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
Wr121, 122, 123 English Composition	3	3	3
Anth101, 102, 103 General Anthropology	3	3	3
Bi101, 102, 103 General Biology	4	4	4
Physical education	1		1
He250 Personal Health		3	
Electives		3	3
Second Year	**4**	**5**	**6**
Second-year foreign language	4	4	4
General education-science	3-4	3-4	3-4
General education-social science	3	3	3
Soc204, 205, 206 General Sociology (EOSC) or General education-humanities (UO, OSU, PSU)	3	3	3
Physical education	1	1	1
Electives	3	0-3	0-3

Art
(college transfer)

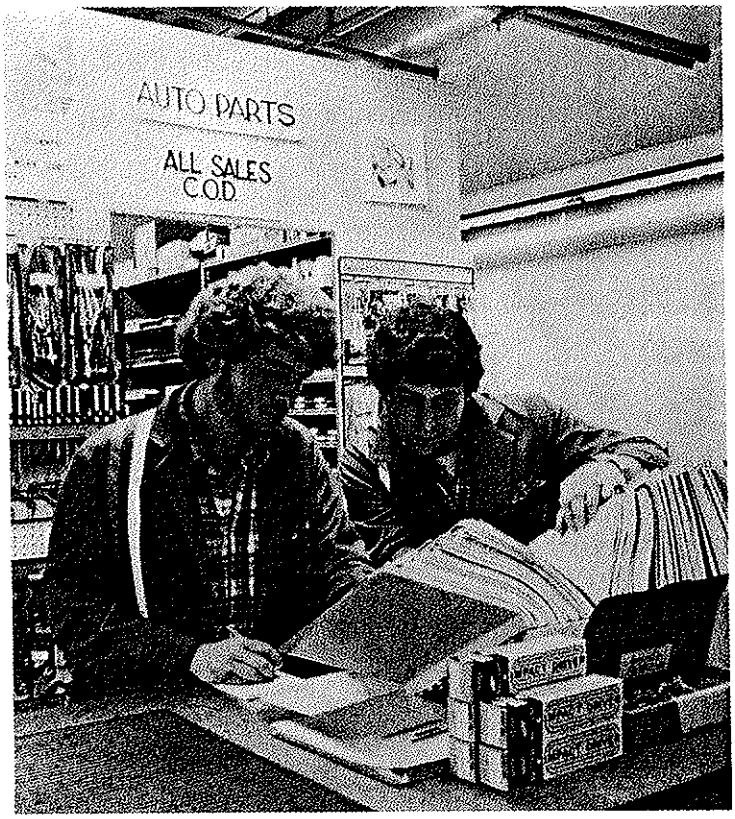
These courses are recommended for students who plan to transfer college credits into a major program in art at the University of Oregon, Oregon State University, Portland State University, Eastern Oregon State College, Southern Oregon State College or Western Oregon State College. Students who satisfactorily complete these courses may be able to complete requirements for a bachelor of arts or bachelor of science degree within two additional years.

A five-year program in art leading to the bachelor of fine arts (BFA) degree is offered at the University of Oregon (ceramics, visual design, jewelry and metal-smithing, painting, printmaking, sculpture, weaving) and a four-year program leading to a BFA in applied visual arts is offered at Oregon State University (advertising design, crafts design or individually approved combinations of areas offered).



The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
Wr121, 122, 123 English Compostion	3	3	3
Art115, 116, 117 Basic Design (OSU, WOSC-4 hours; UO, PSU, SOSC, EOSC-6 hours)	3	3	3
Art231, 232, 233 Drawing (PSU-6 hours; OSU-4 hours; UO, WOSC, SOSC, EOSC-3 hours)	3	3	3
Additional art courses: Art244, 255, 256, 257, 271, 281, 284, 291, 292, 293		3	3
Science or mathematics sequence	3-4	3-4	3-4
Humanities sequence (non-art)	3	3	3
Physical education	1	1	1
Electives		0-3	0-3
Second Year	**4**	**5**	**6**
Social science sequence	3	3	3
Studio art courses: choose from Art244, 255, 256, 257, 271, 281, 284, 291, 292, 293 (See college transfer guide for limits)	3	3	3
Art204, 205, 206 Introduction to History of Art	3	3	3
Physical education	1	1	
He250 Personal Health			3
Electives	6	6	3



Automotive Technology

The Automotive Technology program offers training for automotive maintenance and repair workers and for auto parts salespersons. The classes emphasize technical training and development of skills through the study of the various systems of the automobile.

To help students work effectively with people, the program also includes written and oral communications classes and general education electives. The curriculum emphasizes related scientific, mathematical, and general mechanical principles.

Automotive Mechanics

Automotive Mechanics training may lead to employment in the automotive service and repair field. With an increasing number of makes and models of autos, the demand for auto mechanics with a broad background and diversified training is growing.

Students may enroll in Aum280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

To earn an Associate in Science degree, automotive mechanics students must successfully complete 95 required credits.

Course No.	Course Title	Credit Hours
Term 1		
Aum051	Internal Combustion Engines	6
Aum056	Automotive Shop Safety	1
Wld097	Welding	2
Com051	Communication Skills I	3
Aum057	Auto Chassis I	3
Term 2		
Aum061	Power Trains	5
Aum062	Technical Diagram Interpretation	2
Com052	Communication Skills II	3
Math051	Basic Mathematics	3
Aum058	Auto Chassis II	3
Term 3		
Aum066	Fuel Systems and Carburetion I	3
Aum071	Automotive Repair I	4
Aum052	Automotive Machine Shop	3
Aum076	Automotive Electrical Systems I	4
Term 4		
Aum067	Fuel Systems and Carburetion II	4
Aum063	Automatic Transmission	4
Aum072	Automotive Repair II	4
	General education elective	3
Term 5		
Aum073	Automotive Repair III	4
Aum077	Automotive Electrical Systems II	4
Aum068	Automotive Auxiliary Systems	4
Aum078	Automotive Service Operations	2
	General education elective	3
Term 6		
Aum081	Tune Up and Diagnosis	6
Aum082	New Automotive Developments	3
Aum083	Automotive Materials	2
Aum092	Automotive Diesel Engines	4
Psy100	Introduction to Psychology	3

Automotive Parts Sales

The Automotive Parts Sales program explores aspects of jobber store management in addition to the sales of automotive parts.

Students may enroll in AuP280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

A Certificate of Completion is awarded upon successful completion of 49 required credits.

Term 1		
AuP081	Engine Theory	3
AuP082	Chassis Theory	3
Com051	Communication Skills I	3
Math051	Basic Mathematics	3
AuP083	Auto Parts I	4
Term 2		
AuP086	Power Train Theory	3
AuP087	Auto Electrical Theory	3
Com052	Communication Skills II	3
Math061	Business Mathematics	3
AuP088	Auto Parts II	4
Term 3		
AuP091	Auxiliary Systems	3
AuP093	Fuel Systems	3
BA051	Accounting Procedures I	4
AuP096	Auto Parts III	4
	General education elective	3

Banking and Finance

The Banking and Finance program is for persons seeking training to enter the banking field and for bank clerks and tellers who want to become eligible for advancement or promotion to officer trainee or officer positions. There are banking career opportunities in auditing, personnel administration, public relations, and operations research and control.

The basic core of the curriculum includes general education and general business courses. Students have three options; they may specialize in 1) banking, 2) savings and loan programs, or 3) credit union.

In addition, Chemeketa and two financial organizations, the Willamette chapter of the American Institute of Banking and the Salem chapter of the Institute of Financial Education, interchange credits for specified courses.

The Banking and Finance program has specific English and mathematics requirements. Initial placement in these courses is determined by results of tests administered by Chemeketa's counseling center.

Students may enroll in Ban280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

An Associate in Science degree is granted upon successful completion of the required 92 credit hours.

Course No.	Course Title	Credit Hours
Term 1		
OA084	Business English	
	or	
	General education elective	3
	Mathematics elective (per placement test)	3
BA211	Financial Accounting I	4
BA101	Business Environment	4
Ban073	Financial Institutions Survey	1
Term 2		
OA085	Business Writing	
	or	
	General education elective	3
Math062	Applied Business Mathematics	3
	Social science elective	3
BA212	Financial Accounting II	4
Banking Options (select one):		
BA269	Principles of Banking	3
	or	
Ban087	Introduction to Savings Association	3
	or	
BA286	Credit Union Accounting	3
Term 3		
BA214	Business Communications	3
BA213	Managerial Accounting	4
	Business elective	3
BA223	Principles of Marketing	3
Banking Options (select one):		
BA278	Law and Banking	3
	or	
Ban099	Teller Operations	3
	or	
BA287	Credit Union Directorship	3
Term 4		
Ec201	Principles of Economics	3
BA250	Small Business Management	3
	Social science elective	3
CS101	Computer Environment	3
Banking Options (select one):		
BA275	Bank Management	3
	or	
BA260	Real Estate Principles I	3
	or	
BA288	Credit Union Management	3
Term 5		
Ec202	Principles of Economics	3
BA226	Business Law I	3
	Business elective	
	or	
Ban280	Cooperative Work Experience	3
	Social science elective	
	or	
Ban094	Saving Accounts-IFE	3
Banking Options (select one):		
BA270	Money and Banking	3
	or	
Ban088	Mortgage Lending	3
	or	
BA289	Credit Union Law	3
Term 6		
BA224	Personnel Principles and Supervision	3
BA238	Salesmanship	3
	Social science elective	3
	Business elective	
	or	
Ban280	Cooperative Work Experience	3
Banking Options (select one):		
BA281	Installment Credit	3
	or	
BA292	Savings Association Operation	3
	or	
BA290	Financial Counseling	3

Suggested business electives:

RE050	Real Estate-A Consumer Approach	3
BA227	Business Law II	3
BA229	Consumer Finance	3
BA277	Business Ethics	3
OA220	Business Machines	3
OA121	Typing	3
BA074	Public Relations in Business	3
RE061	Real Estate Appraisal I	3
RE056	Escrow Procedures I	3
BA232	Introduction to Business Statistics	3

Suggested social science electives:

Psy201	General Psychology	3
Psy202	General Psychology	3
Soc204	General Sociology - Intro.	3
Soc205	General Sociology - Insti.	3

Biology, Botany, Zoology

(college transfer)

These courses are recommended for students who plan to transfer college credits into a major program in biology at the University of Oregon, Portland State University, Eastern Oregon State College, Southern Oregon State College or Western Oregon State College or into a major program in biology, botany, entomology, environmental health, general science, industrial hygiene, microbiology, or zoology at Oregon State University. Students may complete the requirements for the baccalaureate degree within two additional years. A normal course load is approximately 15 to 17 credit hours per term for science students.

Students planning to transfer to UO or to OSU with a major in microbiology, will find some advantage in transferring at the end of the freshman year, although combining general botany and general zoology courses with appropriate chemistry and mathematics classes makes a second year of science study at Chemeketa practical.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer. A student's initial mathematics class is determined by a placement test. Additionally, the level and depth of mathematics training varies considerably for different science degrees. Therefore, students are strongly urged to consult an advisor when selecting a mathematics sequence.

First Year	Term 1	2	3
Wr121 English Composition and approved courses in communication skills	3	3	3
Mathematics (approved sequence)	4	4	4
Ch104, 105, 106, or Ch204, 205 206 General Chemistry	5	5	5
Humanities or social science sequence	3	3	3
Physical education	1	1	1
Second Year	**4**	**5**	**6**
Bot201, 202, 203 General Botany and/or	4	4	4
Zoo201, 202, 203 General Zoology	4	4	4
Ch226, 227 Organic Chemistry or		5	5
Ph201, 202, 203 General Physics	4	4	4
Social science or humanities sequence	3	3	3
Electives	3	3	3

Building Inspection

The Building Inspection program has two options. There is a one-year plan for students with experience in the building trades and a two-year option for those new to the field. Graduates of both programs may qualify for state of Oregon certification as building inspectors at the C level or higher, depending upon experience.

There is a need for certified building inspectors working for public agencies. With some experience in the field, graduates of the program also may become construction managers or clerks-of-the-works or perform similar functions in other jobs.

The curriculum covers technical and general education courses. Classes on various codes, plans inspection techniques, and construction materials are complemented by courses in mathematics, communication skills, and public relations.

Students may enroll in Bld280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

Certificate Program

A Certificate of Completion is awarded after successful completion of the required 54 credit hours.

Course No.	Course Title	Credit Hours
Term 1		
Com051	Communication Skills I	3
Psy246	Introduction to Industrial Psychology	3
Bld050	Introduction to Uniform Building Code	3
Math051	Basic Mathematics	3
Bld051	Building Code I	3
FrP060	Fire Prevention Fundamentals	3
Term 2		
Com052	Communication Skills II	3
Math052	Introduction to Algebra and Geometry	3
Bld052	Building Codes II	3
Bld059	Materials of Construction	3
Bld058	Zoning Enforcement and Administration	3
Drf059	Print Reading	3
Term 3		
Bld055	Building Department Administration	3
Bld053	Building Codes III	3
Math053	Introduction to Trigonometry with Geometry	
Com053	Technical Report Writing	3
Bld056	Techniques of Inspection I or	
Bld057	Techniques of Inspection II	3
Bld054	Dwelling Construction Under the UBC	3

Associate in Science Degree

An Associate in Science degree is awarded after successful completion of the required 101 credit hours.

Term 1

Psy199	Introduction to Industrial Psychology	3
Com051	Communication Skills I	3
Math051	Basic Mathematics	3
FrP060	Fire Prevention Fundamentals	3
Bld050	Introduction to the UBC	3

Term 2

Com052	Communication Skills II	3
Math052	Introduction to Algebra and Geometry	3
Drf059	Print Reading	2
Bld058	Zoning Enforcement and Administration	3
Bld059	Materials of Construction	3
Cvl055	Environmental Quality Control	3

Term 3

Com053	Report Writing	3
Drf060	Advanced Print Reading	2
Math053	Introduction to Trigonometry with Geometry	3
Bld054	Dwelling Construction Under UBC	3
Bld056	Techniques of Inspection I	3
Bld061	Structural Inspection-Wood	3

Term 4

FrP064	Hazardous Materials	3
Cvl059	Soil Mechanics Fundamentals	3
Bld051	Building Codes I	3
Bld071	Plumbing Code and Inspection I	3
Bld068	Engineering for Building Inspection	3
Bld063	Structural Inspection-Concrete	3

Term 5

Bld060	Fire Protection for Building Construction	3
Bld052	Building Code II	3
Bld081	Mechanical Code and Inspection I	3
Bld066	Structural Plan Review	3
Bld062	Structural Inspection-Masonry	3
Bld064	Structural Inspection-Steel	3

Term 6

FE205	Job Search Techniques	1
Bld053	Building Codes III	3
Bld067	Non-Structural Plan Review	3
Bld057	Techniques of Inspection II	3
Bld091	Electrical Code and Inspection I	3
Bld055	Building Department Administration	3

Business Administration

(college transfer)

Chemeketa offers college credit transfer courses which satisfy lower division requirements in business administration programs. The courses listed below are typical of those accepted by Oregon institutions of higher education.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
BA101 Business Environment	4		
Wr121, 122, 123 English Composition	3	3	3
Mth101 College Algebra	3		
Mth103 Probability and Statistics		3	
Mth106 Elementary Calculus			3
CS131 Introduction to Data Processing		3	
Psy201, 202 General Psychology	3	3	
Soc204, 205 General Sociology		3	3
He250 Personal Health			3
Physical education	1	1	1
Second Year	**4**	**5**	**6**
Sp111 Speech	3		
BA211, 212, 213 Accounting	4	4	4
Ec201, 202, 203 Economics	3	3	3
Wr227 Technical Report Writing	3		
BA226 Business Law I		3	
BA232 Business Statistics			3
Humanities sequence	3	3	3
CS213 Fortran IV		3	
Elective			3

Business Education

(college transfer)

Chemeketa offers a selection of college transfer credit courses which satisfy the lower division requirements of business education degree programs at Oregon State University and Portland State University. The courses listed below are typical of those accepted by Oregon institutions of higher education.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
Wr121, 122 English Composition, BA214 Business Communications (PSU) or Wr123 English Composition (OSU)	3	3	3
Physical education	1	1	1
Humanities sequence	3	3	3
OA111, 112, 113 Shorthand	3	3	3
OA121, 122, 123 Typing	3	3	3
Mth095, 101 Algebra (PSU) or Mth101 College Algebra (OSU) or Mth103 Probability and Statistics	4	4	
OA061 Introduction to Calculators			2
Second Year	**4**	**5**	**6**
BA211, 212, 213 Accounting (PSU)	4	4	4
OA116 Office Procedures	3		
BA251 Office Management		3	
Science sequence	3	3	3
OA211, 212, 213 Shorthand (OSU) or Ec201, 202, 203 Principles of Economics (PSU)	3	3	3
BA217 Business Machines	3		
CS131 Introduction to Data Processing		3	
BA101 Business Environment			4

Chemistry

(college transfer)

These courses are recommended for students who plan to transfer college credits into a major program in chemistry at the University of Oregon, Oregon State University, Portland State University, Southern Oregon State College, or Eastern Oregon State College.

Because of the highly professional and exacting nature of the instruction in chemistry, students should plan on transferring after one year at Chemeketa. If they transfer more than one year of community college work, it may take them more than four years to complete a degree. The amount of time required to complete a major program depends upon the requirements of the department, the ability and industry of the student, and his or her level of achievement in mathematics at the time of transfer.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
Wr121, 122, 123, or 227 English Composition	3	3	3
Mathematics (per placement test)	4	4	4
Ch204, 205, 206 General Chemistry	5	5	5
GL101, 102, 103 First-year German (UO, PSU)	3-4	3-4	3-4
Bi101, 102, 103 General Biology (OSU)	3-4	3-4	3-4
General education - humanities or social science (SOSC, EOSC)	3-4	3-4	3-4
Physical education	1	1	1

Chiropractic

(college transfer)

The two-year Chiropractic program is recommended for students seeking admission to Western State Chiropractic College in Portland.

For admission, WSCC requires at least 90 credit hours; certain courses, a minimum 2.25 grade point average and a 2.25 grade point average in general chemistry and organic chemistry.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or the admissions office of WSCC for any new requirements.

First Year	Term 1	2	3
Ch204, 205, 206 General Chemistry	5	5	5
Mth101, 102 or Mth023 and 024 Mathematics	4	2-4	
Wr121 English Composition	3		
Other communication skills classes		3	3
Psy201, 202 General Psychology		3	3
Humanities or social sciences	3	3	3
Second Year	**4**	**5**	**6**
Zoo201, 202, 203 Zoology	4	4	4
Ph201, 202, 203 General Physics	4	4	4
Ch226, 227 Organic Chemistry		5	5
Humanities or social science	3		
Electives	4	3	3

Civil/Survey Technology

Civil/Survey Technology offers two options for entry into careers in civil engineering and survey technology. The first two terms, students share a common core of classes so that they may explore, gain insight, and consult with their advisors, to make knowledgeable decisions about their career goals. Each student then selects the option which best fits his or her needs, interests, and career goals.

Students may enroll in Cvl280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

Civil-Structural Engineering Technology Option

This option offers practical training in applying current theory and practices common to the field of civil engineering. Through course work and field experiences students may develop the skills expected of competent engineering technicians for entering and advancing in various related civil-structural fields, such as highway, civil project development and construction inspection.

On construction projects, these technicians may assist in estimating costs or preparing specifications for materials or they may participate in surveying, drafting, or design work. During the construction phase of such projects civil-structural engineering technicians may assist contractors or engineers in scheduling construction activities and inspecting work for conformance with blueprints and specifications.

An Associate in Science degree is awarded upon successful completion of the required 101 credit hours.

Course No.	Course Title	Credit Hours
Term 1		
Cvl060	Plane Surveying I	4
Drf054	Drafting	2
Math081	Technical Mathematics I	4
Cvl099	Engineering Technician Orientation	2
Com051	Communication Skills I	3
Psy100	Introduction to Psychology	3
Term 2		
Ph081	Applied Physics	4
Drf059	Print Reading	2
Cvl061	Plane Surveying II	5
Math082	Technical Mathematics II	4
Cvl050	Applied Mechanics	3
Term 3		
Cvl062	Survey Computations I	2
Cvl051	Strength of Materials I	3
Math083	Technical Mathematics III	4
Com053	Technical Report Writing	3
Cvl055	Environmental Quality Control	3
Term 4		
Drf084	Land Division and Mapping	3
Cvl052	Strength of Materials II	3
Cvl057	Soil Mechanics	3
Bld065	Building Materials	3
Cvl079	Contracts and Specifications	3
Cvl064	Survey Computations II	2
Term 5		
Cvl077	Construction Estimating	3
Drf082	Civil Engineering Drafting	3
Cvl075	Hydraulics	4
Cvl070	Timber and Steel Construction	4
Com052	Communication Skills II	3
Term 6		
Cvl072	Concrete Construction and Design	3
Cvl056	Sanitary Engineering	3
Drf083	Project Development	3
Cvl063	Route Surveying	4
For088	Methods of Supervision	3

Survey Technology Option

The survey technology option focuses on the basic concepts, rules and technical skills associated with surveying and inspection. Graduates may gain sufficient knowledge in technical material to work as surveyor technicians on location on roads or highways and building locations, surveying property, making office computations, and preparing maps. Graduates may also become construction inspectors who represent engineers on job sites and inspect construction work as it progresses to assure its compliance with plans and specifications.

An Associate in Science degree is awarded upon successful completion of the required 94 credit hours.

Course No.	Course Title	Credit Hours
Term 1		
Cvl060	Plane Surveying I	4
Math081	Technical Mathematics I	4
Com051	Communication Skills I	3
Drf054	Drafting I	2
Cvl099	Engineering Technician Orientation	2
	Psychology elective	3
Term 2		
Cvl061	Plane Surveying II	5
Math082	Technical Mathematics II	4
Cvl050	Applied Mechanics	3
Drf059	Print Reading	2
Ph081	Applied Physics	4
Term 3		
Cvl062	Survey Computation I	2
Math083	Technical Mathematics III	4
Com053	Technical Report Writing	3
AH071	Multimedia First Aid	1
Drf081	Mapping and Platting	3
For052	Tools and Equipment	2
Term 4		
Cvl064	Survey Computation II	2
Cvl059	Soil Mechanics Fundamentals	3
Cvl065	Survey Law	3
Mth133B	Introduction to Programming, BASIC	3
	Forestry, civil, science or drafting elective	3
	Speech elective	3
Term 5		
Drf082	Civil Engineering Drafting	3
Cvl067	Public Land Survey	3
Cvl077	Construction Estimating	3
Drf076	Photogrammetry I	3
For061	Tree Identification I	2
Term 6		
Cvl063	Route Surveying	4
Drf077	Photogrammetry II	3
Drf083	Project Development	3
For062	Tree Identification II	2

Clerical Technology

The Clerical Technology curriculum offers practical training for students interested in working as word processing operators, general office clerks, receptionists, typists, file clerks, transcribing machine operators, and accounting clerks. The program is recommended for students who wish to prepare themselves for work in a minimum amount of time.

An advisor works with each student to develop a program to fit the student's needs for a desired position. Approved electives allow flexibility for students to specialize for work in such offices as law, real estate, insurance, accounting, medical, engineering, data processing, and word processing.

Students may enroll in OA280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

A Certificate of Completion is awarded upon successful completion of the required 48 credits.

Course No.	Course Title	Credit Hours
Term 1		
Math061	Business Mathematics	3
OA121	Typing I	3
OA101	Office Careers Survey	1
	Approved electives	6
OA084	Business English or general education elective	3
Term 2		
OA124	Typing Skillbuilding	3
OA061	Introduction to Calculators	2
	Social science elective	3
	Approved electives	6
OA085	Business Writing or general education elective	3
Term 3		
BA214	Business Communications	3
OA116	Office Procedures	3
OA122	Typing II	3
	Electives*	6

*OA280 Cooperative Work Experience is recommended.

Computer Operations

The Computer Operations program features concentrated study and practical experience in aspects of operating different types of computer systems.

The program emphasizes professional performance by students. This includes advanced operating standards and techniques, problem solving, recovery procedures, and working in coordination with other people to help students become efficient and obtain reliable results.

Students must demonstrate proficiency in English on a level equal to completion of OAO85 Business Writing. This may be shown by successfully completing OAO85 or by achieving a comparable score on an English placement test administered by Chemeketa's counseling center.

Students must complete all the courses listed for terms 1, 2, 3, and demonstrate proficiency in each area.

Students may enroll in CS280 Cooperative Work Experience with approval of the lead instructor. For more information, check the catalog index.

A certificate of Completion is awarded upon satisfactory completion of 48 required credit hours.

Course No.	Course Title	Credit Hours
Term 1		
CS131	Introduction to Data Processing	3
OA121	Typing I	3
Math061	Business Mathematics	3
	English (per placement test) or general education elective	3
CS050	Computer Center Operations	5
Term 2		
CS070	Fundamentals of Computer Programming I	4
OA122	Typing II	3
OA200	Introduction to Word Processing	3
OA061	Introduction to Calculators	2
BA244	Records Management	3
FE205	Job Search Techniques	1
Term 3		
BA051	Accounting Procedures I	4
CS066	Computer Applications Using BASIC	4
OA068	Word Processing: CRT Operation and Text Editing	3
	Elective or	
CS280	Cooperative Work Experience	4
Recommended Electives:		
BA214	Business Communications	3
BA101	Business Environment	4
OA116	Office Procedures	3
CS062	RPG II for Operators	4
OA062	Reprographics	3
OA069	Word Processing: Advanced CRT Operation	3
CS072	Systems Analysis I	3

Computer Programming

Chemeketa's Computer Programming curriculum is for men and women who wish to become professional computer programmers. The two-year program includes theory and technical information as well as experience in actual programming tasks. The curriculum emphasizes accounting and management principles, problem solving, and how to work effectively with people.

Students may enroll in CS280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

An Associate in Science degree is awarded upon successful completion of the required 93 credit hours. This degree meets minimum education / experience requirements for persons to qualify for state of Oregon employment classification as a computer programmer trainee and, after six months experience, to qualify as a computer programmer.

Course No.	Course Title	Credit Hours
Term 1		
Com051	Communication Skills I	
	or	
Wr121	English Composition	3
Mth010	Beginning Algebra	4
BA051	Accounting Procedures I	4
CS131	Introduction to Data Processing	3
CS070	Fundamentals of Computer Programming I	4
Term 2		
BA052	Accounting Procedures II	4
CS071	Fundamentals of Computer Programming II	4
CS215	Computer Hardware and Software Concepts	4
CS231	COBOL I	4
Term 3		
CS080	COBOL II	5
CS075	OS/VS Job Control and Utilities	3
CS081	Systems Analysis I	3
FE205	Job Search Techniques	1
Term 4		
CS073	Systems Analysis II	3
CS082	Assembler I	5
CS085	RPG for Programmers	4
CS280	Cooperative Work Experience	
	or	
	Business elective	3
Term 5		
CS076	Data Communications	2
CS081	COBOL III	5
Com053	Technical Report Writing	
	or	
Wr227	Technical Writing	3
BA053	Accounting Procedures III	4
CS280	Cooperative Work Experience	
	or	
	Business elective	3
Term 6		
	Programming elective	3
	General education elective	3
Ec100	Outline of Economics	
	or	
	Social science elective	3
CS280	Cooperative Work Experience	
	or	
	Business elective	3
Sp111	Fundamentals of Speech	
	or	
Sp114	Interpersonal Communications	3

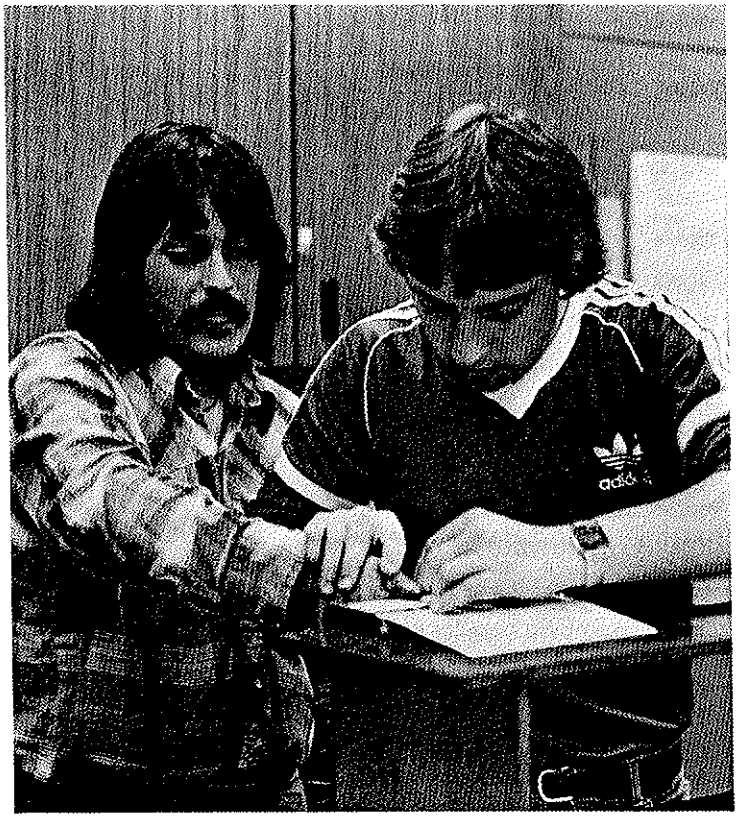
Computer Science

(college transfer)

Chemeketa offers transfer college credit courses which satisfy the lower division requirements of the computer science degree program at Portland State University, Oregon State University, or University of Oregon.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center and an advisor at the institution to which they plan to transfer

First Year	Term 1	2	3
Mathematics (per placement test)	4	4	4
CS211 Introduction to Computer Science		4	
CS212 Techniques for Computer Programming			4
Science requirements	4	4	4
Wr121 English Composition	3		
Physical education health	1-3	1	1
Humanities sequence	3	3	3
Second Year	**4**	**5**	**6**
Mathematics (per placement test)	4	4	4
CS213 Fortran IV	4		
CS215 Computer Hardware and Software Concepts		4	
Communication skills requirements		3	3
Social science sequence	3	3	3
Science requirements or electives	4		4
Physical education, if required	1	1	1



Criminal Justice

The Criminal Justice program is open to persons who want to enter the field as well as employees seeking further education. The program which a full-time student usually may complete in two years (six terms), includes courses in three different degree options: criminal justice administration, corrections, and law enforcement.

Students in all options are required to meet the general education requirements and criminal justice core requirements. Core course requirements in the program include introductory courses in each option, but each option has additional required courses. To complete their degree requirements, students may choose electives from a wide range of general education or criminal justice courses.

Students may enroll in CJ280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

Because many jobs in the field require a bachelor's degree for entry or advancement, courses are planned so that graduates may transfer credits to a four-year institution. Students should meet with an academic advisor for program planning before completing the first term.

An Associate in Science degree is awarded upon successful completion of the required credit hours for each option.

General education requirements (34 hours)

English/communication skills	
Speech	3
Writing	6
Mathematics/science	4
Physical education/health	3
Social science humanities	18

Core course requirements (26 hours)*

Course No.	Course Title	Credit Hours
CJ100	Survey of Criminal Justice System	3
CJ101	Introduction to Criminology	3
CJ110	Introduction to Law Enforcement	3
CJ140	Introduction to Criminalistics	5
CJ201	Juvenile Delinquency	3
CJ210	Introduction to Criminal Investigation	3
CJ220	Introduction to Substantive Law	3
CJ223	Rules of Evidence	3

*All core courses are required in all options except CJ140 which is not required in the corrections option.

Corrections Option

Professional course requirements (21 hours)

CJ131	Introduction to Penology	3
CJ132	Introduction to Probation and Parole	3
CJ215	Criminal Justice Administration	3
CJ227	Introduction to Constitutional Law	3
CJ230	Introduction to Juvenile Corrections	3
CJ231	Introduction to Corrections Process	3
CJ232	Introduction to Corrections Casework	3

General education electives (21 hours)
(see academic advisor)

Total credit hours required 97

Criminal Justice Administration Option

Professional Course Requirements (15 hours)

CJ200	Introduction to Community Relations	3
CJ215	Criminal Justice Administration	3
CJ221	Criminal Law II	3
CJ227	Introduction to Constitutional Law	3
CJ231	Introduction to Corrections Process	
	or	
CJ230	Introduction to Juvenile Corrections	3

General education electives (21 hours)
(see academic advisor)

Total credit hours required 96

Law Enforcement Option

Professional requirements (21 hours)

CJ200	Introduction to Community Relations	3
CJ204	Seminar in Criminal Justice	3
CJ215	Criminal Justice Administration	3
CJ211	Criminal Law II	3
CJ227	Introduction to Constitutional Law	3
CJ228	Moot Court	3
CJ230	Introduction to Juvenile Corrections	3

General education electives (15 hours)
(see academic advisor)

Total credit hours required 96

Dental Assisting

The Dental Assisting program offers technical training to persons who want to work in dental offices and clinics. The program is accredited by the American Dental Association.

The program includes instruction in assisting dentists in private offices or dental health clinics plus clinical and field trip experiences.

Typical duties of dental assistants are preparation of patients for treatment, mixing restoration materials and dental cements, checking and sterilizing equipment, taking inventory, and ordering supplies. Laboratory duties include pouring study models of teeth, fabricating custom trays and temporary crowns, and exposing and developing X-ray films. As office manager, the dental assistant acts as receptionist, schedules appointments, keeps accounts and records, prepares statements, and is responsible for the general appearance of the office.

In order to graduate, students must be able to type at least 35 words per minute and must show a competency in mathemathics equivalent to Math051 Basic Mathematics. A grade of "C" or better is required in all courses. State certificate of radiological proficiency is required prior to graduation.

A Certificate of Completion is awarded upon successful completion of the required 60 credit hours. Graduates are eligible to take the national American Dental Assistants Association certification examination.

Course No.	Course Title	Credit Hours
Term 1		
Bi060	Basic Science for Dental Assistants	3
Den055	Dental Anatomy and Physiology	4
Den050	Introductory Concepts in Dental Assisting	4
Den054	Dental Materials and Instrumentation	4
Den051	Dental Science I	3
Term 2		
Den059	Dental Assisting Practicum I	3
Den052	Dental Sciences II	4
Den066	Expanded Functions I	2
Den060	Dental Office Management	3
Den061	Principles and Basic Application of Dental Radiology	4
Term 3		
Den070	Advanced Lab	4
Den067	Expanded Functions II	2
Den069	Dental Office Practicum II	3
Den062	Applied Radiography II	2
Com051	Communication Skills I	3
AH050	Health Occupations Overview	1
HE261	Cardiopulmonary Resuscitation	1
Term 4		
Den079	Dental Office Practicum III	5
Den080	Dental Assistant Seminar	2
Psy111	Processes in Living	3

Drafting Technology

Drafting Technology offers two paths of entry into careers in drafting—Drafting and Mechanical Design. During the first year students in both areas share many courses so they may explore, gain insight, and consult with advisors to make knowledgeable decisions about their career goals. The selection of either Drafting or Mechanical Design should be made as soon as possible in the first year of college.

Students may enroll in Drf280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

Drafting

The drafting curriculum offers training and knowledge in skills which apply to technical drafting but which normally cannot be gained through experience alone, such as principles of design, materials and processes, mathematics, and physical science concepts.

Drafting courses are selected and planned to train technicians to be proficient in free-hand lettering, preliminary sketching, pencil and ink drawing, shading, use of color media, transfer graphics, map scribing and plotting, and computer-aided drafting. Students practice combining these techniques to produce complete assembled views, working drawings, exploded views, renderings, schematics, plats, maps, and electronically produced images.

An Associate in Science degree is awarded upon successful completion of the required 94 credit hours.

Course No.	Course Title	Credit Hours
Term 1		
Com051	Communication Skills I	3
Mch053	Manufacturing Processes	3
Math052	Introduction to Algebra and Geometry	3
Drf050	Sketching	1
Drf051	Machine Drafting	4
Term 2		
Com052	Communication Skills II	3
Drf052	Machine Drafting II	4
Math053	Introduction to Trigonometry with Geometry	3
Psy100	Introduction to Psychology	3
Drf056	Architectural Drafting	3
Term 3		
Drf068	Introduction to Specifications	1
Drf065	Drafting Room Computations	1
Drf081	Mapping and Platting	3
Cvl060	Plane Surveying I	4
Math081	Technical Mathematics I	4
Drf073	Computer Aided Graphics	2

Term 4

Drf074	Descriptive Geometry	3
Ph082	Applied Physics	4
Cvl061	Plane Surveying II	5
Mth133B	Introduction to Programming, BASIC	3
Drf090	Electronic Drafting	
	or	
Drf057	Architectural Drafting	3

Term 5

Drf082	Civil Engineering Drafting	3
Drf089	Structural Drafting	3
Ph082	Applied Physics	4
Com053	Technical Report Writing	3
Drf061	Technical Illustration	
	or	
Drf076	Photogrammetry I	
	or	
	Course selected from Mechanical Design curriculum by consent of instructor and advisor	3

Term 6

Drf069	Pipe and Flow Systems Drafting	3
	*General education elective	3
	General education elective	3
	(select two):	
Drf062	Technical Illustration	3
	and/or	
Drf055	Architectural Design	3
	and/or	
Drf077	Photogrammetry II	3
	and/or	
	Course selected from Mechanical Design curriculum by consent of instructor and advisor	3

*OA121 Typing is recommended

Mechanical Design

Mechanical Design is a comprehensive drafting program with practical approaches to engineering and design concepts.

Students train to become technicians in machine, electronic, and control systems drafting. The use of the computer as a problem-solving tool and the basic concepts of computer-aided drafting are emphasized.

Instruction in design stresses the use of manufacturer's technical catalogs, technical handbooks, and practical applications of theoretical and mathematical concepts studied in courses taken concurrently.

An Associate in Science degree is awarded upon satisfactory completion of the required 95 credit hours.

Course No.	Course Title	Credit Hours
Term 1		
Com051	Communication Skills I	3
Drf051	Machine Drafting	4
Drf050	Sketching	1
Math081	Technical Mathematics I	4
Mch056	Machine Shop I	3
	Physical education elective	1
Term 2		
Com052	Communication Skills II	3
Drf065	Drafting Room Computations	1
Mch072	Industrial Materials and Processing	3
Drf052	Machine Drafting	4
Math082	Technical Mathematics II	4
Drf073	Computer Aided Graphics	2
Term 3		
Com053	Technical Report Writing	3
Drf074	Descriptive Geometry	3
Cvl050	Applied Mechanics	3
Math083	Technical Mathematics III	4
	Physical education elective	1
	General education elective	3
Term 4		
Drf090	Electronic Drafting	3
Drf075	Applied Descriptive Geometry	2
Cvl051	Strength of Materials I	3
Ph081	Applied Physics	4
Mth133B	Introduction to Programming, BASIC	3
Term 5		
Drf086	Power Transmission Design	3
Drf066	Tool Design Lab I	3
Drf071	Machine Design Lab I	3
Cvl052	Strength of Materials II	3
Wld098	Metallurgy	3
Term 6		
Drf070	C.A.D. Pipe Systems	2
Drf087	Industrial Control Systems Design Lab	3
Drf067	Tool Design Lab II	3
Drf072	Machine Design Lab II	3
	Physical education elective	1
	General education elective	3

Early Childhood Education

Early Childhood Education is a comprehensive program of both theoretical and practical experiences designed to prepare individuals to work with young children. Many of the courses may be helpful to parents of preschool-age children and to persons working with families, children, and individuals. Graduates may qualify as child care aides, assistants, and teachers in nursery schools, day care centers, kindergartens, and Head Start programs.

Students may enroll in ECE280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

Students who successfully complete 60 required credit hours may be awarded Certificates of Completion. Students who successfully complete 95 required hours may earn an Associate in Science degree.

Course No.	Course Title	Credit Hours
Term 1		
ECE061	Development in Childhood I	3
ECE060	Introduction to Early Childhood Education	3
Com051	Communication Skills I	
	or	
Wr121	English Composition	3
Psy100	Introduction to Psychology	
	or	
Psy201	General Psychology	3
ECE066	Observing and Recording in the Preschool	3

Term 2

ECE062	Development in Childhood II	3
FL290	Perspectives on Effective Parenting	3
ECE067	Observing and Guiding Behavior	3
Com052	Communication Skills II	
	or	
Wr122	English Composition	3
Psy101	Psychology of Human Relations	
	or	
Psy202	General Psychology	
	or	
Psy111	Processes in Living	3

Term 3

ECE079	Child Nutrition	2
	or	
FN225	Nutrition	4
ECE071	Creative Activities	3
ECE091	Supervised Field Experience I	3
	Physical education elective	1
	General education elective*	5
He264	Childhood Emergencies	1
	(valid first aid card required as prerequisite)	

Term 4

ECE074	Children's Literature	3
ECE070	Environments for Young Children	3
FL223	Family Living	
	or	
FL222	Partner Relationships	3
ECE092	Supervised Field Experience II	4
	General education elective*	3

Term 5

ECE084	The Exceptional Child	3
ECE075	Music for Young Children	3
ECE072	Learning Experiences for Young Children	4
ECE096	Directed Participation I	7

Term 6

ECE080	Home, School, Community	3
ECE085	Administration of Child Care Centers	3
ECE097	Directed Participation II	8
	General education elective*	3

*Suggested electives: ECE Cooperative Work Experience and courses listed under these categories in the course descriptions in this catalog: art, business (consumer finance), health, history (ethnic), home economics—clothing and textiles, home economics—family living, home economics—foods and nutrition, Spanish, science, speech, and sociology.

Economics

(college transfer)

The curriculum below is recommended for students who plan to transfer college credits into a major program in economics at the University of Oregon, Oregon State University, Portland State University, Southern Oregon State College, or Western Oregon State College. Students may complete requirements for the baccalaureate degree within two additional years.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
Wr121, 122, 123 or 127 English Composition	3	3	3
Humanities sequence (WOSC: Eng104, 105, 106 or Eng107, 108, 109)	3	3	3
Mathematics (per placement test)	4	4	4
Social Science sequence (WOSC: Hst107, 108, 109)	3	3	3
Physical education	1		1
He250 Personal Health		3	
Electives	0-3	0-6	3-6
Second Year	**4**	**5**	**6**
Ec201, 202, 203 Principles of Economics	3	3	3
BA211, 212, 213 Principles of Accounting (SOSC, PSU I term) or Humanities sequence	3	3	3
Science (PSU I term; fill out year with humanities)	4	4	4
Physical education	1	1	1
Electives (SOSC: Mth103 or BA232)	6	6	6

Education (Elementary)

(college transfer)

Upon successful completion of these courses students may transfer college credits to any institution of the Oregon State System of Higher Education offering a program in elementary education and, upon admission to the professional teacher education program, they may complete the requirements for a baccalaureate degree within two additional years. Programs in elementary education are offered at Eastern Oregon State College, Western Oregon State College, Oregon State University, Portland State University, Southern Oregon State College, and the University of Oregon.

Admission to the professional program is based upon several qualifications, including academic background and demonstrated ability to speak and write adequately. Application procedures and admission criteria are given in the Oregon college transfer guide.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

The 12 credits of theory and practicum (sophomore block) required at OSU can be satisfied by successful completion of Ed110 Psychology of Learning, Ed133 Instructional Media and Equipment and Ed210 Education Practicum included in the Educational Aide program. Educational Aide courses may also meet requirements for recommended electives for transfer. The program also offers a one-term orientation for students exploring education as a career (Ed209B Practicum, Introductory Observation and Experience).

First Year	Term 1	2	3
Wr121, 122, 123 English Composition	3	3	3
Mth191, 192, 193 Mathematics for Elementary Teachers (EOSC, WOSC, SOSC, PSU: 9 hours; OSU: 6 hours; UO: third term equivalent) or physical science sequence	4	4	4
Humanities sequence	3	3	3
Physical science sequence	4	4	4
Humanities sequence	3	3	3
Physical education		1	1
He250 Personal Health	3		
Recommended electives (see transfer guide)		2-6	2-8
Second Year	**4**	**5**	**6**
Psy201, 202, 203 General Psychology (all but UO, SOSC, EOSC; OSU one term only)	3	3	3
Sp111 Fundamentals of Speech (all but UO, EOSC)			3
Social science sequences (PSU: 9 hours history or geography; OSU: Hst201, 202, 203, Geog105, Soc204; WOSC: Psy201, 202, 203)	6	6	6
Bi101, 102, 103 General Biology	4	4	4
Physical education	1	1	1
Electives (except UO; see transfer guide)	3-6	3-6	3-6

Education (Secondary)

(college transfer)

Students planning to become junior or senior high school teachers should enroll in the transfer program for the subject they plan to teach, adding Sp111 Fundamentals of Speech. Admission to the professional program in education is based upon several qualifications, including academic background and demonstrated ability to speak and write adequately. Application for admission should be made immediately upon transfer to the four-year institution. See the Oregon college transfer guide for admission information.

All students interested in becoming teachers are urged to discuss career planning and placement with a counselor in order that they may make informed career decisions in view of the job market.

Educational Aide courses may meet requirements for recommended electives for transfer. The Educational Aide program also offers Ed209B Practicum, Introductory Observation and Experience, a one-term orientation for students exploring education as a career.

Educational Aide

The Educational Aide program offers training for persons who wish to become classroom aides.

First year students take a core of required courses, including a practicum. Classes are in four general areas: instruction, non-instructional support, human relations, and communication/computation. Students are also required to demonstrate certain competencies in writing, speaking, mathematics, and typing.

Second year students specialize in working with children at certain grade levels (kindergarten, elementary or secondary) or in helping with bilingual or handicapped children or in working in vocational-technical education.

The program is planned so that a student may continue to work toward earning a baccalaureate degree and a professional teaching certificate. A number of the courses may be transferred for credit to four-year colleges and institutions in Oregon.

The program also offers Ed209B Practicum, Introductory Observation and Experience, a one-term orientation for students exploring education as a career.

After successfully completing the required 48 credit hours in the one-year program, a student earns a Certificate of Completion. An Associate in Science degree is awarded upon successful completion of 96 required credits in the two-year program.

Course No.	Course Title	Credit Hours
Term 1		
Ed131	Teaching Techniques	3
Ed133	Instructional Media and Equipment	3
Ed209A	Practicum: Introduction to Observation and Experience	3
	Writing Course	3
	or	
	Electives*	6
Term 2		
Ed123	Tutoring and Instructional Practices for Paraprofessionals I	3
Ed110	Psychology of Learning	3
Ed210	Education Practicum, Theory and Practice	6
AH071	Multimedia First Aid	1
	Speech course	
	or	
	Elective*	3
Term 3		
Ed124	Tutoring and Instructional Practices for Paraprofessionals II	3
Ed111	Contemporary Education	3
Ed211	Advanced Practicum	6
	Mathematics course	
	or	
	Elective	3
	Typing course	
	or	
	Elective*	2

*Students are required to demonstrate competencies in reading, writing, speaking, typing, and mathematics equivalent to Rd010 Basic Reading Tactics II, Com051 Communications Skills I, OA121 Typing I, and Math051 Basic Mathematics.

Second Year Options

Second year students complete the general courses for all options (nine credits) and 18 hours of general education courses. They also take 15 credits in the option they select, including at least six credits in practicum experience.

General Courses for all options:

HR154	Community Resources	3
Ed251	Introduction to Special Learner Problems	3
Psy299	Growth and Development	3

Classroom Aide

Kindergarten/Lower Elementary

Mth191	Math for Elementary Teachers	3
Mth192	Math for Elementary Teachers	3
Mth193	Math for Elementary Teachers	3
Ed212	Practicum Specialized Education	6-18
ECE071	Creative Activities	3
ECE061	Development in Childhood I	3
ECE062	Development in Childhood II	3
ECE070	Environments for Young Children	3
ECE072	Learning Experiences for Young Children	4
ECE075	Music for Young Children	3
ECE074	Children's Literature	3
FL260	Kindergarten Education	3

Junior/Senior High
Subject Matter Courses

	Social science sequence	9
	Humanities sequence	9
Ed212	Practicum Specialized Education	6-18

Bilingual/Bicultural Aide

Ed257	Second Language Teaching Techniques for Paraprofessionals	3
Ed258	Multicultural Children's Activities and Literature for Paraprofessionals	3
Ed259	Bilingual Methodology for Paraprofessionals	3
	Language requirement	9-12
Ed212	Practicum Specialized Education	6-18
Hst257	Introduction Ethnic History-American Indian	3
Hst258	Introduction to Ethnic History-Black	3
Hst259	Introduction to Ethnic History-Chicano	3
Eng256	Minority Literature-American Indian	3
Eng257	Minority Literature-Black	3
Eng258	Minority Literature-Chicano	3

Handicapped Learner Aide

Deaf/Blind

Ed201, Ed202, Ed204	American Sign Language Beginning, I, II, III	9
Ed206	Conversational Sign	3
Ed213	Beginning Interpreting for the Deaf	3
Ed266	Studies in Deafness	3
Ed212	Practicum Specialized Education	6-18

Mentally Retarded, Physically Disabled, Emotionally Disturbed

Ed267	Introduction to the Education of Mentally Retarded, Physically Handicapped and Emotionally Disturbed	3
Ed268	Introduction to Classroom Management of the Mentally Retarded and Physically Handicapped	3
Ed269	Introduction to Classroom Management of the Emotionally Disturbed	3
Ed212	Practicum Specialized Education	6-18

Vocational-Technical Education Aide

Ed281	Introduction to Vocational Technical Education	3
Ed292	Occupational Analysis and Curriculum Development	3
Ed210	Education Practicum, Theory and Practice	6-18

Electronics Technology

Electronics Technology offers three options for persons who want to enter the broad area of electronic engineering, electromechanical, and the electronic servicing/communication technologies. Students in all the options share a common core of classes for three terms so they may explore, gain insight, and receive an advisor's help in making knowledgeable decisions about their career goals. Students then select the option which best fits their needs, interests, and career goals.

Students may enroll in Elt280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

Course No.	Course Title	Credit Hours
Term 1		
Elt051	Electrical Theory DC	4
Elt056	Applied Electronic Calculations I	
	or	
Math081	Technical Mathematics I	4
Com051	Communication Skills I	3
Elt061	Engineering Orientation	1
Elt058	Introduction to Electronics	1
Drf091	Basic Drafting for Electronics	2
Term 2		
Elt052	Electrical Theory AC	4
Elt054	Transistors	5
Elt057	Applied Electronic Calculations II	
	or	
Math082	Technical Mathematics II	4
Elt062	Engineering Problems	1
Term 3		
Elt053	Electrical Circuits	4
Elt071	Introduction to ICs	4
Elt055	Semiconductors	3
Elt064	Wave Generation and Shaping	3
Elt066	Digital Applications	3

Second-Year Options

Electromechanical Technology Option

This option in industrial electronics offers courses in technical knowledge and engineering technology skills so that graduates may assist in designing and developing electromechnical devices or systems; work as field engineers; design and install industrial control systems; and operate, maintain, and repair equipment. Other job opportunities are in field engineering, research, quality control, technical writing, industrial control, automation, sales technical representation, instrumentations, medical devices, and automatic production.

An Associate in Science degree is awarded upon successful completion of the required 94 credit hours.

Term 4

Elt067	Electronic Data Processing	3
Elt065	Electronic Circuits Concepts	4
Elt086	Electromechanical Devices I	3
Elt075	Industrial Electronics	4

Term 5

Ph081	Applied Physics	4
Com052	Communication Skills II	3
Elt087	Electromechanical Devices II	4
Elt078	Computer Programming	3
Elt072	Linear IC Applications	2
Elt079	Fluid Systems	3

Term 6

Ph082	Applied Physics	4
Elt068	Microprocessor Systems	3
Elt073	Advanced Electronic Circuits	2
Elt080	Measurement and Instrument Systems	3
Elt084	Servos and Regulator Systems	3

Electronic Engineering Option

This option offers students a comprehensive program balancing theory with techniques so they may enter the electronics industry as specialized technicians. Graduates may be employed as radio communications technicians, electronics technicians, electronic laboratory technicians, electronic instrument technicians, electronic computer technicians, microwave radio technicians, and electronic engineering technicians.

An Associate in Science degree is awarded upon successful completion of the required 98 credit hours.

Term 4

Elt065	Electronic Circuit concepts	4
Elt067	Electronic Data Processing	3
Elt075	Industrial Electronics	4
Elt078	Computer Programming	3
Elt076	Antennas and Transmission Lines	2

Term 5

Ph081	Applied Physics	4
Com052	Communication Skills II	3
Elt070	Video Display Circuits	5
Elt072	Linear IC Applications	2
Math083	Technical Mathematics III	
	or	
GS200	Computer Applications in Science and Technology	4

Term 6

Ph082	Applied Physics	4
Com053	Technical Report Writing	3
Elt068	Microprocessor Systems	3
Elt073	Advanced Electronic Circuits	2
Elt077	Telecommunications	3
	Approved electronics elective	3

Electronic Servicing/ Communication Technician Option

This option offers students broad technical training, theory, and skills development. Graduates may be employed as technicians in home electronics and two-way radio communications servicing and maintenance, and other servicing areas in the electronics field such as electronics service shops and electronics industries. Other opportunities are technical writing, sales engineering, service training, and self-employment.

An Associate in Science degree is awarded upon successful completion of the required 96 credit hours.

Term 4

Elt067	Electronic Data Processing	3
Elt065	Electronic Circuit Concepts	4
Elt069	Communication Systems	3
Elt070	Video Display Circuits	5
Elt076	Antennas and Transmission Lines	2

Term 5

Com052	Communication Skills II	3
Elt078	Computer Programming	3
Elt081	Logical Trouble Shooting	4
Elt059	Consumer Electronics Systems	4
Elt072	Linear IC Applications	2

Term 6

Elt068	Microprocessor Systems	3
Elt082	Advanced Servicing	4
Elt060	Analysis of Electronic Systems	4
Elt074	FCC License Preparation	3
	Approved electronics elective	3

Emergency Medical Technology

The Emergency Medical Technology program offers continuing education for practicing Emergency Medical Technicians for their personal development and career advancement, and entry level training for students who want to become EMT's. Efforts are made to keep the program up-to-date with current community practices and with new technology.

Trained workers may be employed by police and fire departments, ambulance companies, and industries.

Students take training in three areas: clinical skills defined by state law as levels of certification (EMT I, III, IV), organizational skills (management of finance, personnel, supplies, and equipment), and public interactive skills (laws, public agencies, and community relations). The program emphasizes the relationship of EMT to other health care and emergency services providers and the role and responsibilities of the EMT in the community. A grade of C or better is required in all medical-related courses.

Six credit hours of EMT280 Cooperative Work Experience may be granted as business electives with approval of the lead instructor. To participate in CWE, student must have a valid driver's license and be a certified EMT I. For more CWE information, check the catalog index.

An Associate in Science degree is awarded upon successful completion of the required 101 credit hours. This usually takes two full-time years.

Satisfactory completion of clinical courses helps prepare students for certification examinations administered by the Emergency Medical Sevices section of the Oregon State Board of Health and by the State Board of Medical Examiners. Further information on current regulations regarding eligibility in Oregon or other states is available from appropriate state agencies.

Course No.	Course Title	Credit Hours
Term 1		
EMT050	Emergency Medical Technology I	6
	Psychology elective	3
Bi071	Body Structure and Function I	3
	or	
Bi121	Human Anatomy and Physiology	4
Med051	Medical Terminology I	3
	Communication Elective	3
Term 2		
EMT069	Rescue Fundamentals	3
EMT060	Emergency Medical Technology III-A	4
EMT074	Dispatching and Radio Communications	2
Bi072	Body Structure and Functions II	3
	or	
Bi122	Human Anatomy and Physiology	4
Med052	Medical Terminology II	3
Math051	Basic Mathematics	3
Term 3		
EMT061	Emergency Medical Technology III-B	6
Med055	Medical Law and Ethics	3
BA101	Business Environment	4
	Social science elective	3
FrP056	Fire Service Rescue	4
Term 4		
EMT062	Emergency Medical Technology III-C	6
EMT075	Introduction to Emergency Medical Services	4
AH059	Survey of Human Disease	
	or	
Med064	Introduction to Medical Science	3
Term 5		
EMT063	Emergency Medical Technology III-D	5
AH050	Health Occupations Overview	1
He268	Pharmacodynamics	3
BA206	Business Management Principles	3
	or	
BA250	Small Business Management	3
He262	CPR Instruction	1
EMT070	Emergency Response Driving	1
Term 6		
EMT064	Emergency Medical Technology IV	8
FE205	Job Search Techniques	1
	Business elective	3
	Business elective	3
AH080	Crisis Intervention	3

Communication electives

Sp114	Interpersonal Communication	3
Sp130	Business and Professional Speaking	3
Wr121	English Composition	3
Com051	Communication Skills I	3
Com052	Communication Skills II	3

Psychology electives

Psy101	Psychology of Human Relations	3
Psy111	Processes in Living	3
Psy114	Career Development, Personal Perspective	3
HR150	Self-Awareness and Interpersonal Skills	3

Social science electives

Ec100	Outline of Economics	3
Ec201	Principles of Economics	3
Ec202	Principles of Economics	3
PS199	Political Power and Political Action	3
PS201	American Government	3
PS203	State and Local Governments	3
WS101	Introduction to Women's Studies	3
EMT079	Disaster Planning and Management	3

Business electives

BA226	Business Law I	3
BA227	Business Law II	3
BA211	Financial Accounting I	4
BA212	Financial Accounting II	4
PA250	Introduction to Public Administration	3
PA255	Public Personnel Administration	3
PA266	Public Personnel Supervision	3
BA074	Public Relations in Business	3
BA224	Personnel Principles and Supervision	3
EMT079	Disaster Planning and Management	3
HR154	Community Resources	3
EMT280	Cooperative Work Experience	6

EMT electives

AH199C, D, E, F EMT Issues, 1, 2, 3, 4

Engineering
(college transfer)

Acceptance to a professional engineering program at the university level is usually competitive, and certain course requirements must be completed before admittance will be considered.

Chemeketa offers a two-year preprofessional program for students who plan to transfer to a university to earn a bachelor of science degree in engineering. This program provides basic course requirements including general engineering courses. However, specific fields of engineering may require additional or alternate courses. Most students require more than four years to complete requirements for a bachelor's degree.

Students must complete the first term of Ph211 Physics Engineering, and two terms of Mth200 and Mth201 Calculus, in order to start second-year engineering courses. Both Mth241 Linear Algebra, and Mth221 Differential Equations, are available for second year students.

The following recommendations are based on information available as this catalog goes to press. Students with interest in engineering are urged to consult with an engineering advisor at Chemeketa to plan their program.

First Year	Term 1	2	3
Mathematics (per placement test)	4	4	4
Ch104, 105, 106 or 204, 205, 206 General Chemistry	5	5	5
GE101 Engineering Orientation	2		
Ph211 Engineering Physics			4
CS211 Introduction to Computer Science		4	
Wr121 English Composition	3		
Humanities/social science	3	3	3
GE115 Graphics		3	
Physical education	1		
Second Year	**4**	**5**	**6**
Mathematics	4	4	4
Ph212, 213 Engineering Physics		4	4
GE211, 212, 213 Mechanics of Solids	3	3	3
GE221 Electrical Circuit Fundamentals		4	
CS213 Fortran IV	4		
Humanities/social science	3	3	3
Communication skills	3		3
Physical education	1		

English
(college transfer)

These courses are recommended for students who plan to transfer college credits into a major program in English at the University of Oregon, Oregon State University, Portland State University, Eastern Oregon State College, or Southern Oregon State College or into a major program in English or humanities at Western Oregon State College. Requirements for the baccalaureate degree may be completed within two additional years.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
Wr121, 122, 123 English Composition	3	3	3
Literature sequence	3	3	3
Science sequence	4	4	4
Foreign language sequence	4	4	4
Physical education	1	1	1
Electives	0-3	0-3	0-3
Second Year	**4**	**5**	**6**
Eng201, 202, 203 Shakespeare	3	3	3
Hst107, 108, 109 History of World Civilization	3	3	3
Social science sequence (Psy 201, 202, 203 for teachers)	3	3	3
Foreign language sequence (second year)	4	4	4
Physical education	1		1
He250 Personal Health		3	
Electives (Sp111 for teachers)	2-3		2-3

Farm Business Management

The three-year Farm Business Management program assists farm operators with the financial aspects of farm management. Farm operators and their spouses who lease or manage a farm and who have access to the financial records of the farm may enroll.

Instructors make farm visitations and hold monthly class sessions on basic farm records, annual computer analyses, cost production summaries, and applications of analysis information for improving the management and organization of each business.

Tuition covers instruction, record book, farm visits, and a year-end computer farm business analysis. For information, contact the Community Education office in Salem 399-5088 or the Chemeketa McMinnville Center, 472-9482.

The program includes the following:

9801 Farm Management I
Includes a survey of farm management skills and family goals, uses of farm records-net worth statements, enterprise record keeping, inventories and depreciation, farm income and

expenses, budgeting, cash flow projections, business principles, closing account books for analysis, credit planning, tax management, and development of profit and loss statements.

9802 Farm Management II
Covers monitoring goal achievements, interpreting and analyzing farm records, monitoring cash flow, measuring efficiency and business size, crop and livestock costs and return, labor costs and return, understanding government regulations affecting payroll, capital costs and returns, legal aspects of farm management-contracts, rental agreements, liabilities use of computerized farm records system and tax management, closing accounts for analysis, profit and loss statements, and the process of making decisions.

9803 Farm Management III
Includes evaluating the farm business, net worth, credit planning and budgeting, optimum production levels, studying income possibilities, developing crop and livestock plans, planning investments in building and equipment, purchasing or leasing land. Begins considerations of wills and estate planning, farm business organization (proprietorship vs. partnership vs. corporations), use of futures, hedging, future contracting or marketing tools, developing alternative farm plans, and closing accounts for analysis.

9804 Farm Management IV
Focuses on analyzing effects of farm reorganization, updating current year's income tax laws, re-evaluating farm and family goals, treating farm real estate as an investment, risk and uncertainty, and using programmable calculators in decision-making.

9805 Farm Management V
Emphasizes advanced estate planning, income tax management strategies, use of supplementing records, computers in farm management, advanced cash flow analysis, and role of government agencies and programs in farm management.

Fire Protection Technology

The Fire Protection program includes two options for persons interested in careers in protecting life and property from fire. The program offers training for those wanting to enter the career field and for those already employed, who want to expand their knowledge.

The **fire suppression** option offers training for firefighters. Instruction focuses on developing required skills, attitudes, and work habits. Students work a 24-hour shift, each sixth day, each term. Students enrolled in Fire Incident Related Experience courses respond to actual fires, under the supervision of district fire officers. Public fire departments are the chief employers of firefighters.

The **fire prevention** option offers training for inspectors who may be employed by insurance companies, industrial plants, and some public fire departments.

An Associate in Science degree is awarded upon satisfactory completion of 106 required credit hours in the option selected. Course work is accredited by the Oregon Fire Standard and Accreditation Board.

Fire Suppression Option

Course No.	Course Title	Credit Hours
Term 1		
	General education elective	3
Math051	Basic Mathematics	3
FrP050	Introduction to Fire Protection	3
FrP051	Fire Incident Related Experience	3
EMT051	Emergency Medical Technology I Part A	2
PE185FM	Fitness Appreciation	1
Com051	Communication Skills or	
Wr121	English Composition	3
Term 2		
Math052	Introduction to Algebra and Geometry	3
FrP055	Elementary Science for Firefighters	4
FrP054	Fire Service Hydraulics	4
FrP052	Fire Incident Related Experience	3
EMT052	Emergency Medical Technology I Part B	3
PE185FM	Fitness Appreciation	1
Term 3		
Com052	Communication Skills II or	
Sp111	Fundamentals of Speech	3
FrP057	Fire Science I	4
FrP058	Fire Pump Construction and Operation	3
FrP056	Fire Service Rescue Practices	4
FrP053	Fire Incident Related Experience	3
PE185FM	Fitness Appreciation	1
Term 4		
FrP059	Fire Science II	4
	Technical elective	3
Com053	Technical Report Writing or	
Wr227	Technical Writing	3
FrP060	Fundamentals of Fire Prevention	3
FrP064	Hazardous Materials	3
FrP061	Fire Incident Related Experience	3
PE185CA	Conditioning-Beginning	1
Term 5		
FrP065	Hazardous Material II	3
FrP062	Fire Incident Related Experience	3
FrP066	Building Construction for Fire Suppression	3
PE185FM	Fitness Appreciation	1
	Technical electives*	6
Term 6		
Psy101	Psychology of Human Relations	3
FrP063	Fire Incident Related Experience	3
PE185FM	Fitness Appreciation	1
	Technical electives*	9

Continued next page

***Technical electives**

FrP071	Fire Protection Systems and Extinguishers
FrP074	Fire Investigation
FrP076	Fire Department Organization and Management
FrP070	Fire Fighting Tactics and Strategy
FrP072	Fire Codes and Ordinances
FrP083	Water Distribution Systems
FrP082	Evidence Photography for Fire and Arson Investigators
FrP075	Aircraft Crash/Fire Rescue
EMT053	EMT I Practicum
For071	Natural Cover Fire Protection
FrP073	Fire Fighters Law
FrP077	Fire Service Instructor Training
FrP078	Introduction to Training Programs
Bld081	Mechanical Code and Inspection I
He262	CPR Instruction

Fire Prevention/Insurance Risk Inspection Option

Students may enroll in FrP280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

Term 1

Math051	Basic Mathematices	3
Com051	Communication Skills I	3
FrP050	Introduction to Fire Protection	3
FrP080	Fire Prevention Fundamentals	3
Bld050	Introduction to Uniform Building Code	3
	General education elective	3

Term 2

Math052	Introduction to Algebra and Geometry	3
Com052	Communication Skills II	3
FrP055	Elementary Science for Firefighters	4
FrP071	Fire Protection Systems and Extinguishers	3
FrP072	Fire Codes and Ordinances	3
FrP073	Firefighters' Law	2

Term 3

Psy101	Psychology of Human Relations	3
FrP074	Fire Investigation	3
Bld067	Non-structural Plan Review	3
FrP083	Water Distribution Systems	3
FrP057	Fire Science I	4
FrP280B	Cooperative Work Experience	2

Term 4

FrP064	Hazardous Materials I	3
Bld051	Building Code I	3
FrP059	Fire Science II	4
FrP084	Building Construction-Fire Protection	3
FrP081	Fire Prevention Inspection	3

Term 5

FrP065	Hazardous Materials II	3
FrP085	Industrial Fire Protection	3
Bld052	Building Code II	3
FrP280C	Cooperative Work Experience	3
	Technical electives*	6

Term 6

Com053	Technical Report Writing	3
FrP086	Advanced Detection and Protection Systems	3
FrP087	Fire Insurance Fundamentals	3
Bld081	Mechanical Code Inspection I	3
FrP280C	Cooperative Work Experience	3
	Technical elective*	3

***Technical electives:** FrP280C Cooperative Work Experience, FrP076 Fire Department Organization and Management, FrP070 Firefighting Tactics and Strategy, FrP066 Building Construction for Fire Suppression, For071 Natural Cover Fire Protection, FrP082 Evidence Photography for Fire and Arson Investigators.

Food Service Management and Commercial Food Production

Chemeketa offers a career ladder program for students interested in training for food service occupations. Students may complete 51 credits (usually three terms or one year) to earn a Certificate of Completion in Commercial Food Production, or they may complete 98 credits (usually six terms or two years) to earn an Associate in Science degree in Food Service Management. The first 51 credits are the same for both programs.

Students may enroll in FS280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

Commercial Food Production Option

The Commercial Food Production program trains workers in quality food production and service.

The program includes preparatory training for students planning to enter the food trades industry and supplememtary training for persons already employed in the occupation who wish to increase their knowledge and skills.

A Certificate of Completion is awarded upon successful completion of the required 51 credit hours.

Course No.	Course Title	Credit Hours
Term 1		
FS060	Basic Food and Nutrition	2
FS050	Quantity Food Production I	8
FS055	Dining Room Operation I	2
FS061	Sanitation and Safety	2
OA084	Business English Fundamentals	3
Term 2		
FS051	Quantity Food Production II	8
FS056	Dining Room Operation II	2
FS062	Menu Planning and Culinary Terms	2
FS070	Purchasing and Stores Control	3
Math051	Basic Mathematics	3
Term 3		
FS052	Quantity Food Production III	8
FS063	Elementary Food Cost Analysis	2
FE205	Job Search Techniques	1
FS280C	Cooperative Work Experience	3
AH071	First Aid	1
He261	Cardiopulmonary Resuscitation	1

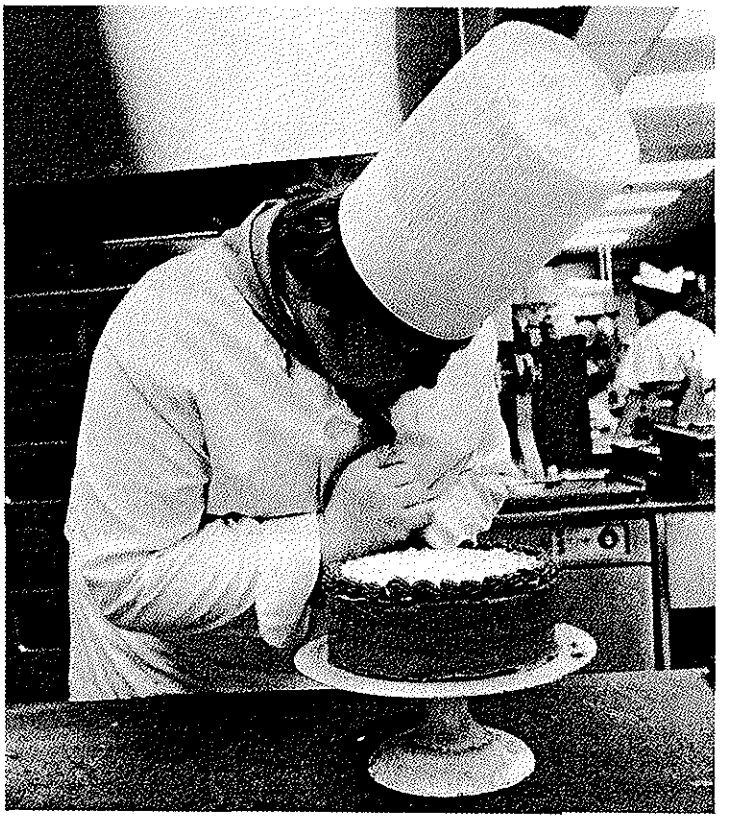
Food Service Management Option

Completion of second-year requirements for Food Service Management provides background training for persons who want to enter food service occupations and eventually become managers.

Graduates of the program may become managers or assistant managers of food service establishments, dining room supervisors, hosts or hostesses, food production managers, kitchen stewards, pantry supervisors, sanitation supervisors, production chefs, or sous chefs.

Upon successful completion of the required 98 credit hours, an Associate of Science degree is awarded.

Term 4		
FS071	Hospitality Beverages	3
BA26	Business Law I	3
BA051	Accounting Procedures I	4
BA074	Public Relations in Business	3
	Psychology elective	3
Term 5		
FS072	Food Service Facilities	3
BA052	Accounting Procedures II	4
FS077	Food Service Maintenance	3
	Approved general education elective	3
BA206	Business Management Principles or	
BA250	Small Business Management	3
Term 6		
FS280F	Cooperative Work Experience	6
BA224	Personnel Principles and Supervision	3
CS101	Computer Environment	3
FS073	Food Service Management	3



Foreign Languages

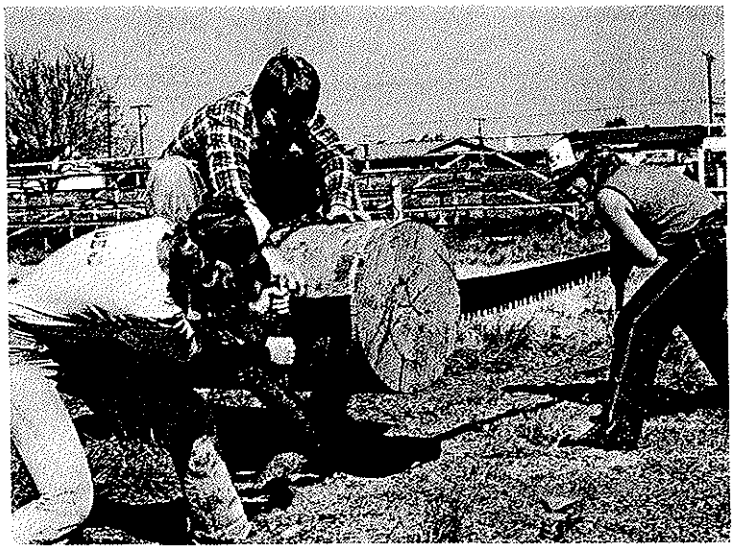
(college transfer)

These courses are recommended for students who plan to transfer college credits into a major program in foreign languages at the University of Oregon, Portland State University, or Oregon State University; into a major program in Spanish at Southern Oregon State College; or into a program for the preparation of foreign language teachers at Western Oregon State College, Southern Oregon State College, or Eastern Oregon State College. Students may complete requirements for the baccalaureate degree within two additional years.

Although foreign language students may begin their study of language in college, it is more common and desirable for prospective language majors to begin their studies with two to four years of work in high school, since major requirements stipulate 30-45 hours in the language beyond the second-year course. Students completing second-year course work in language their first year should transfer to a four-year institution for their sophomore year. Students should not plan to transfer more than 24 lower-division hours of credit in any one language.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	**Term**		
	1	**2**	**3**
Wr121, 122, 123 English Composition	3	3	3
Humanities sequence	3	3	3
Science sequence	4	4	4
Foreign language sequence	4	4	4
Physical education	1	1	
He250 Personal Health			3
Electives	0-3	0-3	0-6
Second Year	**4**	**5**	**6**
Foreign language sequence (second year)	4	4	4
Social science (Hst107, 108, 109 History of World Civilization recommended)	3	3	3
Social science or humanities sequence (Psy201, 202, 203 for teachers) (PSU, UO)	3-5	3-5	3-5
Physical education	1	1	1
Electives (Sp111 for teachers)	0-3	0-3	0-3



Forest Technology

The Forest Technology curriculum includes instruction in the basic knowledge and technical skills required for employment as a forest technician.

There are job opportunities in log scaling, timber management, fire control, recreation, timber stand improvement, and forest engineering.

Students may enroll in For280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

Upon satisfactory completion of the required 106 credit hours the student is awarded an Associate in Science degree.

Course No.	Course Title	Credit Hours
Term 1		
For051	General Forestry	3
For052	Tools and Equipment	2
For056	Industrial Accident Prevention	3
For053	Introduction to Engineering Calculators	1
Com051	Communication Skills I	3
Drf054	Drafting	2
Math052	Introduction to Algebra and Geometry	3
Term 2		
For061	Tree Identification I	2
For066	Forest Products	4
Psy100	Introduction to Psychology	3
Com052	Commmunication Skills II	3
Drf085	Project Graphics	2
Math053	Introduction to Trigonometry with Geometry	3
AH071	Multimedia First Aid	1
Term 3		
For062	Tree Identification II	2
For068	Forest Photogrammetry	3
For067	Forest Sciences	3
For076	Forest Mensuration I	4
Cvl060	Plane Surveying I	4
Term 4		
For081	Logging Practices	4
For071	Natural Cover Fire Protection	4
Cvl061	Plane Surveying II	5
For077	Forest Mensuration II	4
Term 5		
For093	Forestry Seminar	1
For078	Scaling Practices	4
For091	Silviculture	3
For083	Forestry Reports	3
For092	Wood Industry Economics	3
For087	Wood Structure and Identification	3
Ec100	Outline of Economics	3
Term 6		
For088	Methods of Supervision	3
For096	Forest Road Survey	4
Aum091	Power Systems	4
Ph052	Practical Physics	4
	General education elective	3

Forestry

(college transfer)

Students who complete these courses may qualify to enter the professional curricula in forestry or the program in resource recreation management offered by the School of Forestry at Oregon State University at the sophomore level. Students planning to enter a professional program of forestry at OSU or another institution, should transfer immediately upon completion of the one-year pre-forestry program at Chemeketa. Students who complete this program, followed by at least three years at a professional school of forestry, may earn a baccalaureate degree.

The program outlined below is especially recommended for students who begin their study at a community college, and takes full advantage of course work available there to provide the broadest possible transferability. The program does not necessarily parallel programs recommended for students who begin their work at a four-year institution.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
Bot201 and 202 General Botany or Bi101, 102 and 103 General Biology	4	4	4
Ch104, 105, 106 General Chemistry	5	5	5
Mathematics (per placement test)	4	4	4
Wr121 English Composition and approved communication skills	3	3	3
Physical education	1	1	1
Electives			0-4

General Studies
(college transfer)

The General studies emphasizes either the humanities or the sciences or social sciences. Upon completion of this Associate in Arts degree program, students may transfer college credit hours into many general studies programs in four-year institutions and complete requirements for baccalaureate degrees within two additional years. The Associate in Arts degree requires 93 credit hours.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling enter or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
Wr121, 122, 123, 227 English Composition	3	3	3
Social science sequence	3-4	3-4	3-4
Math or science sequence	4-5	4-5	4-5
Physical education	1	1	
He250 Personal Health			3
Electives (foreign language if bachelor of arts degree desired)	3-4	3-4	0-4
Second Year	**4**	**5**	**6**
Humanities sequence	3	3	3
Second sequence in humanities (for humanities emphasis) or mathematics or science (for math-science emphasis) or social science (for social science emphasis)	3-5	3-5	3-5
Physical education	1	1	1
Electives (see an advisor for options-may include up to 12 hours career program credits)	8-10	8-10	8-10

Geography
(college transfer)

These courses are recommended for students who plan to transfer college credits into a major program in geography at the University of Oregon, Southern Oregon State College, Portland State University, Oregon State University, or Western Oregon State College. Students may complete requirements for a baccalaureate degree within two additional years.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
Wr121, 122, 123 or 227 English Composition	3	3	3
Geog105, 106, 107 Introductory Geography	3	3	3
G201, 202, 203 Geology (not required at SOSC) or humanities sequence (SOSC)	3	3	3
G204, 205, 206 Geology Laboratory (not required at SOSC)	1	1	1
Mathematics (per placement test)	3-4	3-4	3-4
Physical education	1		1
He250 Personal Health		3	
Electives	0-3	0-3	0-6
Second Year	**4**	**5**	**6**
Science sequence (SOSC, PSU, UO)	4-5	4-5	4-5
Social science sequence (SOSC: Ec201, 202, 203)	3	3	3
Humanities sequence	3	3	3
Bi101, 102, 103 or social science sequence (PSU) or foreign language (UO) or Bi101, 102, 103 (OSU)	3-4	3-4	3-4
Physical education	1	1	1
Electives	0-3	0-3	0-3

Geology
(college transfer)

These courses are recommended for students who plan to transfer college credits into a major program in geology at the University of Oregon, Oregon State University, Southern Oregon State College, or Portland State University. Students may complete requirements for the baccalaureate degree within two additional years.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institutions to which they plan to transfer.

First Year	Term 1	2	3
Wr121, 122, 123 or 227 English Composition	3	3	3
Humanities sequence	3	3	3
Mathematics (per placement test)	4	4	4
G201, 202, 203 Geology	3-4	3-4	3-4
G204, 205, 206 Geology Laboratory	1	1	1
Physical education	1		1
He250 Personal Health		3	
Electives		0-3	0-3
Second Year	**4**	**5**	**6**
Social science sequence (SOSC: Ec201, 202, 203)	3	3	3
Ph201, 202, 203 General Physics	4	4	4
Ch204, 205, 206 General Chemistry	5	5	5
Physical education	1	1	1
Electives (OSU, UO, SOSC, Bi101, 102, 103)	3-4	3-4	3-4

Health, Health Education

(college transfer)

These courses are recommended for students interested in completing a major program in health or health education at Oregon State University, Portland State University, the University of Oregon or Western Oregon State College. All of these programs lead to teacher certification in health.

The OSU program in health also offers major options in community health, environmental health, school health and safety and safety studies. The PSU program, combined with PSU's certificate program in public health studies, prepares students in community health. The UO program offers opportunities for specialization in community health, gerontology, traffic safety, school health, and comprehensive health. The Oregon college transfer guide lists course recommendations for these options. Students completing the appropriate program outlined below may complete a major program of study within two additional years.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
Wr121, 122, 123 or 227 English Composition	3	3	3
Bi101, 102, 103 General Biology	4	4	4
Ch104, 105, 106 or Ch204, 205 206 General Chemistry	4-5	4-5	4-5
Mth106 (OSU environmental health major)	4		
He252 First Aid		3	
FN225 Nutrition			4
Physical education	1	1	1
Electives	0-3	0-3	0-3
Second Year - UO, PSU, WOSC	**4**	**5**	**6**
Psy201, 202, 203 General Psychology	3	3	3
Soc204, 205, 206 General Sociology	3	3	3
Humanities sequence (UO, WOSC-literature sequence)	3	3	3
Phl201, 202, 203 Philosophy- (PSU: any one course)	3		
Sp111 Fundamentals of Speech (PSU, WOSC)			3
Physical education	1	1	1
He250 Personal Health (UO, WOSC)			3
Electives	0-6	3-6	0-6

Second Year - OSU	Term 4	5	6
Psy201, 202 203 General Psychology	3	3	3
Soc204, 205, 206 General Sociology	3	3	3
PS202 American Government (school health, community health) or Anth101, 102, 103 General Anthropology (environmental health)			3
Ch226 Organic Chemistry (environmental health)	5		
Ph201, 202, 203 General Physics (environmental health)	4	4	4
Sp111 Fundamentals of Speech			3
He250 Personal Health			3
Electives	0-9	0-9	0-6

History

(college transfer)

These courses are recommended for students who plan to transfer college credits into a major program in history at the University of Oregon, Oregon State University, Portland State University, Eastern Oregon State College, Southern Oregon State College or Western Oregon State College. Students may complete requirements for the baccalaurate degree within two additional years.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
Wr121, 122, 123 English Composition	3	3	3
Hst107, 108, 109 History of World Civilization	3	3	3
General education-science sequence	4	4	4
Humanities or foreign language sequence	3-4	3-4	3-4
Physical education	1		1
Electives	0-3	0-3	0-3
Second Year	**4**	**5**	**6**
Hst201, 202, 203 History of the United States	3	3	3
General education-humanities sequence (UO, EOSC, SOSC) or humanities or social science sequence (OSU) or humanities sequence (PSU) or Psy 201, 202, 203 General Psychology (PSU)	3	3	3
Social science sequence other than history or second year foreign language	3-4	3-4	3-4
Physical education	1	1	1
Electives	0-3	0-3	0-3

Home Economics

(college transfer)

These courses are recommended for students attending Chemeketa who plan to transfer into a major program in home economics at Oregon State University. Students may complete requirements for the baccalaureate degree with three additional years of work at the four-year institution.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
Wr121 English Composition	3		
Mth095 Intermediate Algebra		4	
Art115, 116 Basic Design	2	2	
Social science or humanities electives (see OSU catalog)	3	3	3
Sp111 Fundamentals of Speech			3
Ch104, 105, 106 General Chemistry	5	5	5
Physical education	1	1	
Electives*	0-3	0-3	2-6

College transfer home economics courses are listed in the course descriptions section of this catalog under these categories: Home Economics—Clothing and Textiles, Home Economics—Family Living, Home Economics—Foods and Nutrition.

Human Resource

The Human Resource program offers training for entry-level positions in human service agencies. The program combines academic work with five terms of practicum (supervised field work in human service agencies).

The curriculum includes courses in basic skills in observing, interviewing, and counseling (individual and group), and students may gain a working knowledge of the various health, social, and welfare services in the community.

Students must meet admission criteria for both the college and the Human Resource program. The program has a limited enrollment and early application is encouraged.

The Associate in Science degree is awarded upon successful completion of the required 93 credit hours.

Course No.	Course Title	Credit Hours
Term 1		
Psy201	General Psychology	3
Wr121	English Composition	3
HR150	Self-Awareness and Interpersonal Skills	3
HR154	Community Resources	3
HR170	Introduction to Field Experience	3
Term 2		
Psy202	General Psychology	3
He261	Cardiopulmonary Resuscitation	1
Math051	Basic Mathematics	3
HR155	Interviewing Theory and Techniques	3
HR291-296	Practicum	3-8
Term 3		
Psy203	General Psychology	3
Psy229	Growth and Development	3
Sp111	Fundamentals of Speech	3
HR260	Group Dynamics	3
HR291-296	Practicum Experience	3-8
Term 4		
	Vocational electives*	3-6
AH071	Multimedia First Aid	1
Soc204	General Sociology-Introduction	3
HR264	Major Models of Personality	3
HR291-296	Practicum Experience	3-8
Term 5		
	Vocational electives*	3-6
Soc205	General Sociology-Institutions	3
HR265	Intervention Strategies	3
HR291-296	Practicum Experience	3-8
Term 6		
	Vocational electives*	3-6
SSc102	Minority Experience in Contemporary America	3
FE205	Job Search Techniques	1
HR291-296	Practicum Experience	3-8

*Vocational electives (14 hours total) to be selected from classes in mental retardation, gerontology, educational aide, early childhood education, juvenile corrections, sign language or independent studies, etc. with the approval of Human Resource advisor.

Industrial Technology/ Apprenticeship

Industrial Technology

Chemeketa Community College grants an Associate in Science degree in industrial technology. Credit may be earned for on-the-job training and related instruction. The degree is awarded to students who meet the following requirements:

1. Be a journeyman level tradesman in a skilled occupation.

Continued next page

2. Complete a minimum of 30 credit hours at Chemeketa Community College.
3. Complete at least 18 credit hours of general education courses.
4. Complete at least 6 credit hours of communication skills.
5. Compile a total of at least 90 credit hours. Up to 45 credit hours may be awarded for journeyman status and 27 credit hours may be awarded for trade-related training.

Apprenticeship

Apprenticeship training as a method of vocational education is administered by the Oregon Bureau of Labor. It combines full-time, on-the-job work experience with trade-related theoretical instruction.

The instruction at Chemeketa is for persons working at particular trades who need to improve their knowledge of trade theory. Classes generally consist of apprentices registered with the Oregon Bureau of Labor, journeymen who wish to upgrade their skills and knowledge, pre-apprenticeship students, and others as approved by local committees.

Chemeketa has apprenticeship classes for plumbers, industrial workers, electricians, sheet metal workers, radio and television technicians, automotive mechanics, machinists, welders, bakers, and mechanical systems specialists.

Journalism

(college transfer)

These courses are recommended for students who plan to transfer college credits into a major program in journalism at the University of Oregon. Students who complete this program and meet grade requirements may complete requirements for the baccalaureate degree within two additional years. See Chemeketa's journalism advisor for information on those requirements.

J224, 225, 226 Introduction to Journalism is offered at Chemeketa and students may wish to enroll in it as an elective. Lower-division course work in journalism taken at other institutions is not required in the UO major but may be transferred as electives.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
Wr121, 122, 123 English Composition	3	3	3
Eng101, 102, 103 Survey of English Literature or Eng104, 105, 106 Introduction to Literature	3	3	3
Science sequence	4	4	4
Foreign language sequence (recommended)	4	4	4
Physical education	1	1	
He250 Personal Health			3
J224, 225, 226 Introduction to Journalism (elective)	3	3	3
Second Year	**4**	**5**	**6**
Hst107, 108, 109 History of World Civilization or Hst201, 202, 203 History of the United States	3	3	3
Eng253, 254, 255 Survey of American Literature or Eng201, 202, 203 Shakespeare	3	3	3
Ec201, 202, 203 Principles of Economics	3-4	3-4	3-4
Foreign language (recommended)	4	4	4
Physical education	1	1	1
Electives	0-3	0-3	0-3

Technical Journalism

(college transfer)

These courses are recommended for students who plan to transfer college credits into a major program in technical journalism at Oregon State University. Students may complete requirements for the baccalaureate degree with three additional years of work.

A technical minor is required as part of this major program. Consisting of 27-36 hours of work, this minor may be in aerospace studies, agriculture, applied economics, applied safety studies, business administration, civil engineering technology, forestry, health sciences, home economics, military science, naval science, oceanography, pharmacy, or science and may be completed after transfer. Consult the Oregon college transfer guide for prerequisites for the selected minor.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
Wr121 English Composition	3		
J224, 225, 226 Introduction to Journalism	3	3	3
J216 Newswriting		3	
Science sequence with laboratory	4	4	4
Social science sequence other than history	3	3	3
Literature or history sequence	3	3	3
Physical education	1	1	1
Electives		3-4	3-4

Machine Technology

Chemeketa's Machine Technology program offers training in machine trades skills. Workers may become involved in research and development, make prototypes, do routine manufacturing, or complete simple to complex repairs. Students may enroll in either the three-term Machine Tool Operations option or the six-term Machine Mechanical Technology option.

Machine Tool Operations Option

The Machine Tool Operations option features training in operating lathes, milling, drilling, and doing bench work. Graduates may become machine tool operators and entry level machinists.

A Certificate of Completion is awarded upon successful completion of the required 35 credit hours.

Course No.	Course Title	Credit Hours
Term 1		
Math051	Basic Mathematics	3
Mch062	Shop Safety	1
Mch061	Machine Tool Processes I	4
Mch063	Shop Drawings and Layout I	3
Term 2		
Mch072	Industrial Materials and Processes	3
Mch058	Machine Shop Operations Lab	2
Mch067	Machine Tool Processes II	4
Mch068	Shop Drawings and Layout II	2
Term 3		
Mch058A	Machine Shop Operations Lab	2
Mch071	Machine Tool Processes III	5
Mch076	Machine Shop Practices	6

Machine Mechanical Technology Option

The Machine Mechanical Technology option offers training in the knowledge and skills used by workers in machine shops and related occupations. The curriculum includes courses in industrial materials, drafting, print reading, sketching, layout practices, and in written and verbal communication skills.

Students set up and operate machine and shop tools including drill presses, engine and turret lathes, milling machines, grinders, and saws. Students work from prints or sketches to make mechanical items in a variety of materials. This requires planning layout operations, making and using jigs, fixtures, and patterns; and using automated control equipment.

Graduate machinists may qualify for positions in job shops, doing production, specialty, maintenance, tool setup, and layout work.

Students may enroll in Mch280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

Upon satisfactory completion of the required 103 credit hours, the student is awarded an Associate in Science degree.

Course No.	Course Title	Credit Hours
Term 1		
Math051	Basic Mathematics*	3
Com051	Communication Skills I*	3
Psy100	Introduction to Psychology	3
Mch061	Machine Tool Processes I	4
Mch062	Shop Safety	1
Mch063	Shop Drawing and Layout I	3
Term 2		
Math052	Introduction to Algebra and Geometry*	3
Ph051	Practical Physics	4
Mch067	Machine Tool Processes II	4
Wld077	Welding	2
Mch068	Shop Drawing and Layout II	2
Term 3		
Math053	Introduction to Trigonometry with Geometry*	3
Com052	Communication Skills II*	3
Mch071	Machine Tool Processes III	5
Ph052	Practical Physics	4
Mch072	Industrial Materials and Processes	3
Term 4		
Mch077	Mechanical Systems	4
Mch073	Machine Shop Problems	3
Mch076	Machine Shop Practices	6
Mch078	Hydraulic and Pneumatic Systems	3
	Approved elective or	
Mch280	Cooperative Work Experience	3
Term 5		
Mch088	Hydraulic and Pneumatic Systems II	3
Mch083	Metal Fabrication and Finishing	4
Mch081	Advanced Lathe Practices	4
Mch082	Advanced Milling Machine Practices	3
	Approved elective or	
Mch280	Cooperative Work Experience	3
Term 6		
Mch093	Machine Shop Automation	2
Mch091	Job Machining Practices	8
Mch092	Tool and Fixture Design and Application	4
Mch097	Employer-Employee Relations	3

*College transfer courses may be substituted with approval of the lead instructor.

Management

Chemeketa's Management program has two options: Management and Records Management.

Management Option

Graduates of Chemeketa's Management program may become management trainees or other entry level employees of small businesses or large retail firms.

The curriculum offers a core of business courses. Also included are specific mathematics and English levels of achievement which students must meet in order to graduate.

Initial placement in English and mathematics coures is determined by results of tests administered by Chemeketa's counseling center.

Students may enroll in BA280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

An Associate in Science degree is awarded upon successful completion of 97 required credit hours.

Course No.	Course Title	Credit Hours
Term 1		
	English (per placement test) or general education elective	3
	Mathematics (per placement test)	3
BA211	Financial Accounting I	
	or	
BA051	Accounting Procedures I	4
BA101	Business Environment	4
CS131	Introduction to Data Processing	3
Term 2		
BA214	Business Communications	3
CA121	Typing I	3
Math062	Applied Business Mathematics	3
BA212	Financial Accounting II	
	or	
BA052	Accounting Procedures II	4
	Psychology or sociology elective	3
Term 3		
BA213	Managerial Accounting	
	or	
BA053	Accounting Procedures III	4
	Psychology or sociology elective	3
BA223	Marketing Principles	3
BA206	Business Management Principles	3
	Approved business elective	3
Term 4		
	Psychology or sociology elective	3
BA226	Business Law I	3
BA215	Cost Accounting	3
	Approved business electives	6
Term 5		
	Elective	3
BA222	Financial Management	3
Ec100	Outline of Economics	
	or	
Ec201	Principles of Economics	3
	Approved business electives	6
BA280	Cooperative Work Experience	
	or	
	Business elective	3
Term 6		
	Elective	3
OA061	Personnel Principles and Supervision	3
Sp130	Business and Professional Speaking	
	or	
Sp111	Fundamentals or Speech	3
	Approved business elective	3
BA280	Cooperative Work Experience	
	or	
	Approved business elective	3

Records Management Option

The Records Management option offers training to students who wish to enter or advance in the expanding field of control and management of records for offices and businesses.

The curriculum includes such specific technical courses as records storage, forms, analysis and control, data processing, micrographics, and records administration as well as personnel selection, office organization and general business and education courses. Some of the courses may be transferred to four-year educational institutions in Oregon. All of the classes are offered at night as well as during the day.

The program has specific mathematics and English skill level requirements. Initial placement in these courses is determined by results of tests administered by Chemeketa's counseling center.

Students may enroll in BA280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

The program includes preparation for the national Certified Records Manager examination. An Associate in Science degree is awarded upon successful completion of the required 93 credit hours.

Course No.	Course Title	Credit Hours
Term 1		
Com051	Communication Skills I	3
Math061	Business Mathematics	3
OA061	Introduction to Calculators	2
BA101	Business Environment	4
	Psychology elective	3
BA081	Records Career Survey	1
Term 2		
OA085	Business Writing	3
Math062	Applied Business Math	3
OA121	Typing	3
CS131	Introduction to Data Processing	1
BA244	Principles of Records Management	3
Term 3		
BA211	Financial Accounting I	4
OA122	Typing	3
	Elective	3
OA116	Office Procedures	3
CS072	Systems Analysis I	3
Term 4		
BA214	Business Communications	3
	Elective	3
	Psychology elective	3
BA206	Business Management Principles	3
BA247	Forms Design, Analysis, and Control	3
BA082	Records Storage and Retrieval	3

Term 5		
BA260	Business Law	3
Com053	Report Writing	3
BA251	Technical Office Management	3
BA246	Micrographics	3
BA280	Cooperative Work Experience	3
Term 6		
BA224	Personnel Principles	3
BA245	Records Administration	3
BA280	Cooperative Work Experience	3
	Business elective	3
	Sociology elective	3

Mathematics

(college transfer)

These courses are recommended for students who plan to transfer college credits into a major program in mathematics at the University of Oregon, Oregon State University, Portland State University, Eastern Oregon State College, Southern Oregon State College or Western Oregon State College. Students who complete a basic sequence in calculus by the end of the sophomore year may normally complete requirements for the baccalaureate degree within two additional years.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's couseling center or an advisor at the institution to which they plan to transfer.

First Year	**Term**		
	1	**2**	**3**
Wr121, 122, 123 or227 English Composition	3	3	3
Humanities sequence	3	3	3
Non-math science (OSU, PSU, SOSC) or foreign language or non-math science or social science (UO, EOSC)	3-4	3-4	3-4
Mathematics (per placement test)	4	4	4
Physical education	1		1
He250 Personal Health		3	
Electives	0-3	0-3	3
Second Year	**4**	**5**	**6**
Mathematics	4	4	4
Second non-math science sequence	4	4	4
Social science (EOSC: Non-math science if social science taken first year)	3-4	3-4	3-4
Physical education	1	1	1
Electives	3-4	3-4	3-4

Medical Assisting

The Medical Assisting program includes options for persons who wish to become medical office assistants, ward clerks, health records technicians, and medical transcriptionists. The program offers clinical experience as well as theory and laboratory courses. Students in the program must earn grades of C or better in all medical related courses. OA121 Typing I is required for all students.

Medical Office Assistant Option

The Medical Office Assistant option prepares students for a wide range of duties in medical offices. Business responsibilities may include scheduling and receiving patients, keeping medical records, handling telephone calls and correspondence, and purchasing and maintaining supplies and equipment. Medical office assistants may be responsible for an office and process insurance matters, accounts, fees, and collections. Their medical duties may include assisting with examinations and treatments, taking medical histories, performing certain diagnostic tests and laboratory procedures in a physician's office, and sterilizing instruments and equipment.

Students are awarded Certificates of completion upon successful completion of 53 credit hours. This option is accredited by the Council on Medical Education of the American Medical Association in collaboration with the American Association of Medical Assistants which certifies graduates by examination.

Course No.	**Course Title**	**Credit Hours**
Term 1		
Med056	Medical Assisting, Basic Procedures	3
AH050	Health Occupations Overview	1
Med055	Medical Law and Ethics	3
Med051	Medical Terminology I	3
Math051	Basic Mathematics	3
Bi071	Body Structure and Function I	3
OA121	Typing	3
Term 2		
Bi072	Body Structure and Function II	3
Med054	Medical Office Procedures	4
AH071	Multimedia First Aid	1
Med052	Medical Terminology II	3
Med060	Medical Transcription	2
He261	Cardiopulmonary Resuscitation	1
Med057	Medical Office Assisting, Advanced Procedures	4
Term 3		
Med064	Medical Science	3
OA083	Medical Office Management	3
Med079	Medical Office Practice	6
Med078	Medical Practice Seminar	1
Psy100	Introduction to Psychology	3

Continued next page

Ward Clerk Option

Graduates of Ward Clerk option many become members of a nursing unit team who relay telephone messages and doctors' orders; chart vital signs; perform clerical tasks for admission, discharge and transfer of patients; and prepare patient charts before surgery and various diagnostic procedures. Ward clerks work with physicians, various hospital departments, patients' relatives and friends, and other allied health professionals. Students are awarded Certificates of Completion upon successful completion of 36 credit hours.

Term 1

AH050	Health Occupations Overview	1
Bi071	Body Structure and Function I	3
Med051	Medical Terminology I	3
Med061	Health Information Systems Procedures I	4
Med055	Medical Law and Ethics	3
He261	Cardiopulmonary Resuscitation	1
OA121	Typing I	3

Term 2

Bi072	Body Structure and Function II	3
Med052	Medical Terminology II	3
Med062	Health Information Systems Procedures II	5
Med079	Medical Office Practicum	6
Med078	Medical Practice Seminar	1

Health Records/Medical Transcriptionist Option

Graduates of the Health Records/Medical Transcriptionist option may become health record technicians, medical transcriptionists, or may continue their education in Medical Record Technology and administration programs at other schools.

Health records technicians primarily perform the technical skills of handling medical records such as classifying diseases and operations, qualitatively and quantitatively analyzing current and discharged records, assisting in the collection of data for research and special studies, compiling vital and health statistical information, transcribing various medical reports, abstracting medical information for correspondence purposes, admitting patients to hospitals, filing and retrieving medical information, and many other duties related to medical records and health information keeping.

Medical Transcriptionists must be familiar with medical terminology and proficient in transcribing, using transcription machines, preparing medical reports of all types with accuracy and speed, using the telephone, and performing clerical duties in medical record offices.

A Certificate of Completion is awarded upon successful completion of 47 credit hours.

Students transferring to Portland Community College to earn an associate degree in medical records technician are required to take an additional nine credit hours in general education, including CS131 Introduction to Data Processing or an equivalent.

Term 1

AH050	Health Occupations Overview	1
Bi071	Body Structure and Function I	3
Med051	Medical Terminology I	3
Med061	Health Information Systems Procedures I	4
Med055	Medical Law and Ethics	3
He261	Cardiopulmonary Resuscitation	1
OA121	Typing I	3

Term 2

Bi072	Body Structure and Function II	3
Med052	Medical Terminology II	3
Med062	Health Information Systems Procedures II	5
Med060	Medical Transcription	2
Med054	Medical Office Procedures	4

Term 3

Med063	Health Records Processing	5
Med064	Introduction to Medical Science	3
Med078	Medical Practice Seminar	1
Math051	Basic Mathematics	
	or	
Com051	Communication Skills I	
	or	
Wr121	English Composition	
	or	
Psy201	General Psychology	3

Nursing

Chemeketa offers a career ladder program in nursing for those students who want to become licensed practical nurses or registered nurses.

The nursing curriculum is designed to prepare men and women for positions as licensed personnel at the following levels:

Nursing Assistant

The student who successfully completes the required first-term courses and leaves the program is eligible to receive a certificate as a nursing assistant.

The nursing assistant works under the direction and supervision of a registered nurse or licensed practical nurse. He or she assists licensed nursing personnel in meeting normal patient needs for safety, comfort, hygiene, activity, rest, sleep, nutrition, elimination and fluid balances, oxygen, and emotional support.

Level I

Licensed Practical Nurse

The licensed practical nurse is a member of a nursing or health team and gives nursing care to patients of all ages in simple nursing situations. The licensed practical nurse assists the RN in complex nursing situations.

Completion of the one-year program entitles the student to take the Oregon licensure examination to become a licensed practical nurse. A Certificate of Completion is awarded upon successful completion of the required 53 credit hours. Students must earn grades of C or better in all required courses.

Course No.	Course Title	Credit Hours
Term 1		
Nur106	Nursing	10
Bi121	Human Anatomy and Physiology	4
Psy201	General Psychology	3
He261	Cardiopulmonary Resuscitation	1
Term 2		
Nur108	Nursing	10
Wr121	English Composition	3
Bi122	Human Anatomy and Physiology	4
AH050	Health Occupations Overview	1
Term 3		
Nur109	Nursing	10
Bi124	Medical Microbiology	4
Psy299	Growth and Development	3

Level II

Registered Nurse

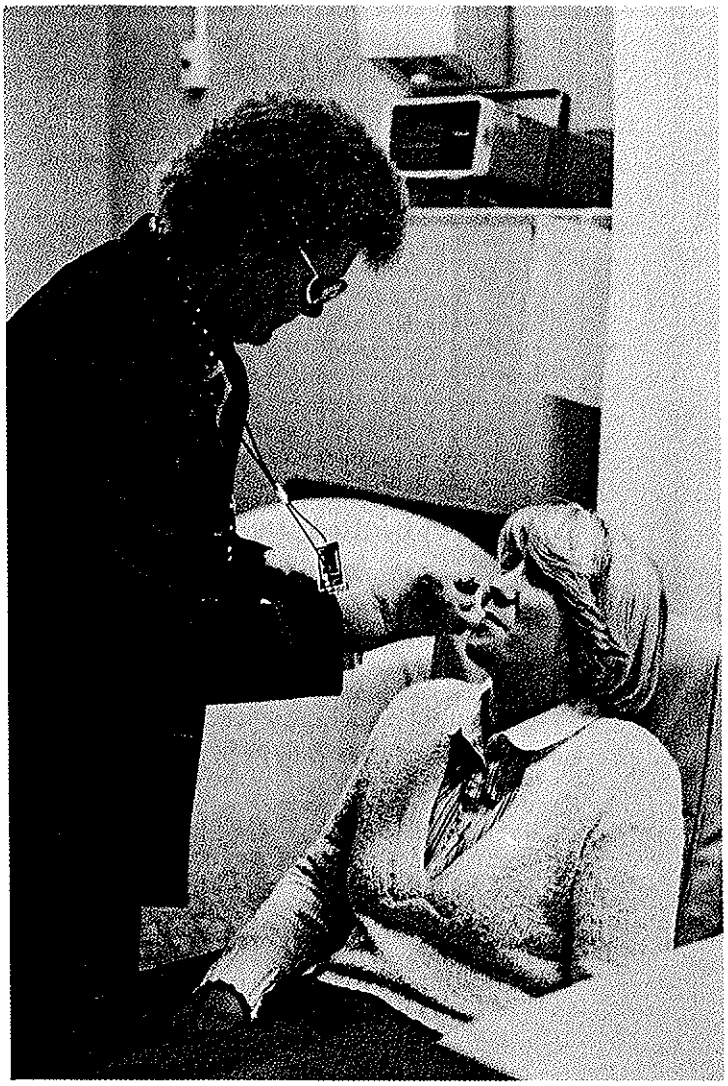
The registered nurse, or RN, applies knowledge drawn from broad, indepth education in the social and physical sciences in assessing, planning, ordering, giving, delegating, teaching, and supervising care which promotes a patient's optimum health and independence.

The RN guides other team members with less education and/or experience, evaluates the need for patient instruction, plans and participates in health teaching, and applies mental health principles to nursing care and function. RNs must also assume responsibility for their professional development.

Upon successful completion of the required 112 credit hours, the student is awarded an Associate in Science degree. In this two-year program, students must earn grades of C or better in all courses required.

Chemeketa advises and helps students plan their pre-nursing programs for transfer to a school of nursing which grants the baccalaureate degree and offers general education courses applicable to the bachelor of science program. Licensed nursing personnel who want to continue their education may take general education courses for transfer into a senior college.

Term 4		
Nur205	Nursing	6
Ch140	Physiological Chemistry	3
He261	Cardiopulmonary Resuscitation or	
AH071	Multimedia First Aid	1
Term 5		
Nur206	Nursing	10
	Elective*	3
Nur204A	Nurse at Work	1
	Elective*	3
Term 6		
Nur208	Nursing	10
	Elective*	3
Nur204B	Nurse at Work	1
	Sociology elective	3
Term 7		
Nur209	Nursing	11
Nur204C	Nurse at Work	1
	Elective*	3



*Electives combined with required courses must meet these Oregon State Board of Nursing minimum requirements: 6 credit hours-Humanities or social science (anthropology, art, composition, economics, foreign language, geography, history, journalism, literature, music, philosophy, political science, psychology, religion, speech, sociology, women's studies).
6 credit hours-Recommended: He268 Pharmacodynamics in Health Care, FN225 Nutrition, Med051 Medical Terminology I, Nur280 Cooperative Work Experience, and other health related courses.

Specialized and Re-entry Courses

The college also offers specialized and re-entry courses to help registered nurses, licensed practical nurses, and other health care personnel keep abreast of current knowledge and new developments in their field (see course descriptions for Nur111 and 211).

Students may enroll in Nur280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

Nursing
(college transfer)

Oregon Health Sciences University School of Nursing in Portland offers a bachelor of Science degree in nursing. Applicants for admission to the four-year program must complete the courses below at an accredited college or university or community college. Admission to the professional nursing program is competitive. Application materials and information concerning the National League for Nursing, Prenursing, and Guidance Examination, required of all students with no previous preparation in nursing, are available at the Registrar's Office, OHSU, Portland, OR 97201.

Registered Nurses Seeking Baccalaureate Degrees

The OHSU School of Nursing provides an opportunity for registered nurses, including those completing Chemeketa's registered nurse program, to complete requirements for the baccalaureate degree in nursing. A part-time or full-time program of study is available. Preprofessional course requirements are 45 credit hours of course work which must include one course in nutrition, one course in mathematics, and one year of general chemistry. Information regarding earning credit through College Level Examination Program (CLEP) is available in registrars' offices of all colleges and universities. Registered nurses are strongly encouraged to complete the basic science requirements (anatomy and physiology, biochemistry, microbiology) before entering the baccalaureate program.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
Wr121 English Composition		3	
Ch104, 105, 106 or Ch204, 205, 206 General Chemistry	5	5	5
FN225 Nutrition			3-4
Mth095 Intermediate Algebra	4		
Physical education	1	1	1
Humanities sequence	3	3	3
Social science sequence	3	3	3
Electives	0-3	3	3

Office Administration/ Secretarial

The Office Administration/Secretarial program is designed for persons who want to become secretaries, administrative assistants, or other administrative support specialists. It is also for employed office support personnel who want further training to increase or add to their skills in order to advance in their careers.

Office support workers are vital to the workings of a company or institution. Many jobs are interesting and challenging. The work is varied. It may be highly specialized, or it may be closely related to management-level personnel concerned with policy decisions.

The Office Administration/Secretarial program has four options: Engineering Secretary, Legal Secretary, Medical Secretary, and Office Administration.

Students may enroll in OA280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

Upon successful completion of the required credit hours in each option, the student is awarded an Associate in Science degree.

Engineering Secretary Option

Graduates of the engineering secretary option may become employees of consulting firms, civil or structural engineering businesses or drafting and architectural companies. In these offices, a secretary may have a variety of duties such as typing contracts and specifications, billing, handling correspondence, drafting, keeping financial records, and maintaining technical reference materials and manuals.

To prepare students for these jobs, the program includes classes in written communication skills, technical mathematics, and civil and structural engineering as well as secretarial skills.

The Associate in Science degree is awarded upon successful completion of 95 credit hours.

Course No.	Course Title	Credit Hours
Term 1		
OA111	Shorthand I	
	or	
OA114	Briefhand I	3
OA121	Typing	3
BA101	Business Environment	4
OA101	Office Careers Survey	1
	Mathematics (per placement test) or general education elective	3
	English (per placement test) or general education elective	3

Term 2		
OA112	Shorthand II	
	or	
OA072	Briefhand II	3
OA122	Typing II	3
OA062	Reprographics	3
Math081	Technical Math I	4
	English (per placement test) or general education elective	3
Term 3		
OA113	Shorthand III	
	or	
OA073	Briefhand III	3
OA116	Office Procedures	3
Math082	Technical Math II	4
BA214	Business Communications	3
Cvl099	Engineering Technician Orientation	2
Term 4		
OA113	Typing III	3
OA225	Machine Transcription I	3
OA256	Secretarial Practicum	3
For053	Introduction to Engineering Calculators	1
	or	
OA061	Introduction to Calculators	2
	Engineering elective	3
	Business elective	3
Term 5		
BA211	Financial Accounting	
	or	
BA051	Accounting Procedures	4
Cvl079	Contracts and Specifications	3
BA244	Records Management	3
OA200	Introduction to Word Processing	3
	Social science elective	3
Term 6		
Ec100	Outline of Economics	
	or	
Ec201	Principles of Economics	3
BA226	Business Law	3
CS131	Introduction to Data Processing	3
	Engineering elective	3
	Business elective (OA280 Cooperative Work Experience recommended)	3

Legal Secretary Option

Legal secretary graduates may qualify for beginning secretarial positions in law offices or in legal departments of companies or agencies.

The program emphasizes training in shorthand dictation, machine transcription, typing legal documents and correspondence, managing legal files, answering telephones, and keeping office records. Students work with documents in real estate and property transfer, litigation, wills and estates, and corporations and partnerships.

Supervised on-the-job training gives students opportunities to use the skills, knowledge, and attitudes required in a legal environment.

An Associate in Science degree is awarded upon successful completion of the required 95 credit hours.

Course No.	Course Title	Credit Hours
Term 1		
OA084	Business English	
	or	
	General education elective	3
OA101	Office Careers Survey	1
Math061	Business Mathematics	3
OA111	Shorthand I	
	or	
OA114	Briefhand I	3
OA121	Typing I	3
	Social science elective	3
Term 2		
OA085	Business Writing	
	or	
	General education elective	3
OA112	Shorthand II	
	or	
OA072	Briefhand II	3
OA075	Legal Terminology	3
OA122	Typing II	3
OA116	Office Procedures	3
Term 3		
BA214	Business Communications	3
OA113	Shorthand III	
	or	
OA073	Briefhand III	3
OA225	Machine Transcription	3
OA062	Reprographics	3
OA061	Introduction to Calculators	3
OA076	Legal Office Procedures	3
Term 4		
OA211	Shorthand IV	3
OA200	Introduction to Word Processing	3
BA244	Records Management	3
OA077	Legal Transcription I	3
BA101	Business Environment	4
Term 5		
OA212	Shorthand V	
	or	
	Approved elective*	3
OA078	Legal Transcription II	3
BA251	Office Management	3
BA226	Business Law I	3
BA211	Financial Accounting	
	or	
BA051	Accounting Procedures I	4
Term 6		
OA213	Shorthand VI	
	or	
	Approved elective*	3
CS131	Introduction to Data Processing	3
OA280	Cooperative Work Experience	
	or	
	Business elective	6
OA123	Typing III	3

*Students may substitute an approved elective if they have the required skill (ability to take dictation at a minimum of 80 wpm for three minutes and transcribe with 95 percent accuracy).

Continued next page

Medical Secretary Option

The Medical Secretary curriculum helps to prepare persons to work in medically-related offices where they make appointments, manage patient records, meet patients, type correspondence, transcribe patient records, maintain financial records, and complete insurance forms.

The Associate in Science degree is awarded upon successful completion of the required 95 credit hours.

Term 1

OA084	Business English	
	or	
	General education elective	3
Math061	Business Mathematics	3
OA111	Shorthand I	
	or	
OA114	Briefhand I	3
OA101	Office Careers Survey	1
Med051	Medical Terminology I	3
OA121	Typing I	3

Term 2

OA085	Business Writing	
	or	
	General education elective	3
OA122	Typing II	3
OA112	Shorthand II	
	or	
OA072	Briefhand II	3
OA225	Transcribing Machine Operation	3
Med052	Medical Terminology II	3
OA061	Introduction to Calculators	2

Term 3

BA214	Business Communications	3
OA113	Shorthand III	
	or	
OA073	Briefhand III	3
OA080	Medical Machine Transcription I	3
	Business elective	3
Med055	Medical Law and Ethics	3
AH071	Multimedia First Aid	1

Term 4

Bi071	Body Structure and Function I	3
OA081	Medical Machine Transcription II	3
CS131	Introduction to Data Processing	3
	Business elective	3
BA244	Records Management	3

Term 5

Bi072	Body Structure and Function II	3
OA082	Medical Secretary Practicum	3
	or	
Med054	Medical Office Procedures	4
BA051	Accounting Procedures I	
	or	
BA211	Financial Accounting I	4
BA251	Office Management	3
	Business or medical elective	3

Term 6

Med064	Introduction to Medical Science	3
	Social science elective	3
Ec100	Outline of Economics	
	or	
Ec201	Business Economics	3
OA280	Cooperative Work Experience (recommended)	
	or	
	Elective	3
	Business or medical elective	3

Suggested Electives:
OA123 Typing III, OA089 Filing, OA200 Introduction to Word Processing.

Office Administration Option
(Professional Secretary)

Graduates of the Office Administration option may be employed in a variety of office positions as secretaries or administrative assistants, or other administrative support jobs. This work requires the ability to organize a variety of tasks, to accept responsibility, and to use initiative as a member of a team. Responsibilities may include office management and use of skills in human relations, English usage, typing, transcription from machine or shorthand dictation, operation of business machines, records management, word processing, data processing, accounting, and general office procedures.

Students who satisfactorily complete the curriculum requirements are eligible to sit for the Certified Professional Secretary examination in the spring of the second year during the final term of study.

The Associate in Science degree is awarded upon satisfactory completion of a minimum of 99 credit hours.

Course No.	Course Title	Credit Hours
Term 1		
OA084	Business English	
	or	
	General education elective	3
Math061	Business Mathematics	3
OA111	Shorthand I	
	or	
OA114	Briefhand I	3
OA121	Typing I	3
OA101	Office Careers Survey	1
	Social science elective	3
Term 2		
OA085	Business Writing	
	or	
	General education elective	3
OA112	Shorthand II	
	or	
OA072	Briefhand II	3
CS131	Introduction to Data Processing	
	or	
CS101	Computer Environment	3
OA122	Typing II	3
OA200	Introduction to Word Processing	3
OA061	Introduction to Calculators	2
Term 3		
BA214	Business Communications	3
OA113	Shorthand III	
	or	
OA073	Briefhand III	3
OA116	Office Procedures	3
OA062	Reprographics	3
BA217	Business Machines	3
OA225	Machine Transcription I	3

Second Year—Option A

This option requires successful completion of 99 required credit hours for the Associate in Science degree.

Term 4

OA211	Shorthand IV	3
BA244	Records Management	3
BA101	Business Environment	4
OA123	Typing III	3
Ec100	Outline of Economics	
	or	
Ec201	Principles of Economics	3

Term 5

OA212	Shorthand V	
	or	
	Approved elective*	3
BA251	Office Management	3
BA211	Financial Accounting I	
	or	
BA051	Accounting Procedures I	4
BA226	Business Law	3
	Business elective	3

Term 6

OA213	Shorthand VI	
	or	
	Approved elective*	3
BA212	Financial Accounting II	
	or	
BA052	Accounting Procedures II	4
OA256	Secretarial Practicum	3
	Business electives**	6

*Students may substitute an approved elective if they have the required skill (ability to take dictation at a minimum of 80 wpm for three minutes and transcribe with 95 percent accuracy).
**OA280 Cooperative Work Experience recommended for one term.

Second Year—Option B

This option allows the student to be employed in a full-time paid position while earning 12 term units. This enables the student to integrate secretarial skills and knowledge with practical and valuable on-the-job experience with business or governmental agencies.

An Associate in Science degree is awarded upon successful completion of the required 107 credit hours.

Term 4

OA280	Cooperative Work Experience	12

Term 5

OA211	Shorthand IV	3
OA123	Typing III	3
BA211	Financial Accounting I	
	or	
BA051	Accounting Procedures I	4
BA217	Business Machines	3
BA226	Business Law	3

Term 6

OA280	Cooperative Work Experience	12

Term 7

OA212	Shorthand V	
	or	
	Approved elective*	3
BA251	Office Management	3
BA212	Financial Accounting II	
	or	
BA052	Accounting Procedures II	4
OA256	Secretarial Practicum	3
Ec100	Outline of Economics	
	or	
Ec201	Principles of Economics	3

*Students may substitute an approved elective if they have the required skill (ability to take dictation at a minimum of 80 wpm for three minutes and transcribe with 95 percent accuracy).

Office Occupations

Office Occupations is an open-entry, open-exit program for people who want to develop or refresh their clerical skills in order to qualify for office work. Training is completed when a student attains certain competency goals.

The Office Occupations program is offered on the Salem campus, the Chemeketa McMinnville Center, and the Chemeketa Dallas Center. Students may enroll each Monday when openings exist. For additional information, call 399-5114 in Salem, 472-9482 in McMinnville, and 623-5567 in Dallas.

The program concentrates on developing basic skills required of receptionists, file clerks, typists, and other related positions. Independent study and individualized instruction give students a comprehensive review of typing, filing, business English and mathematics, calculators, and machine transcription.

The average length of time to complete the full program is two terms (22 weeks) if the student attends 30 hours per week. Students who wish to refresh specific skills may enroll on a weekly basis.

Students may enroll in OA280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

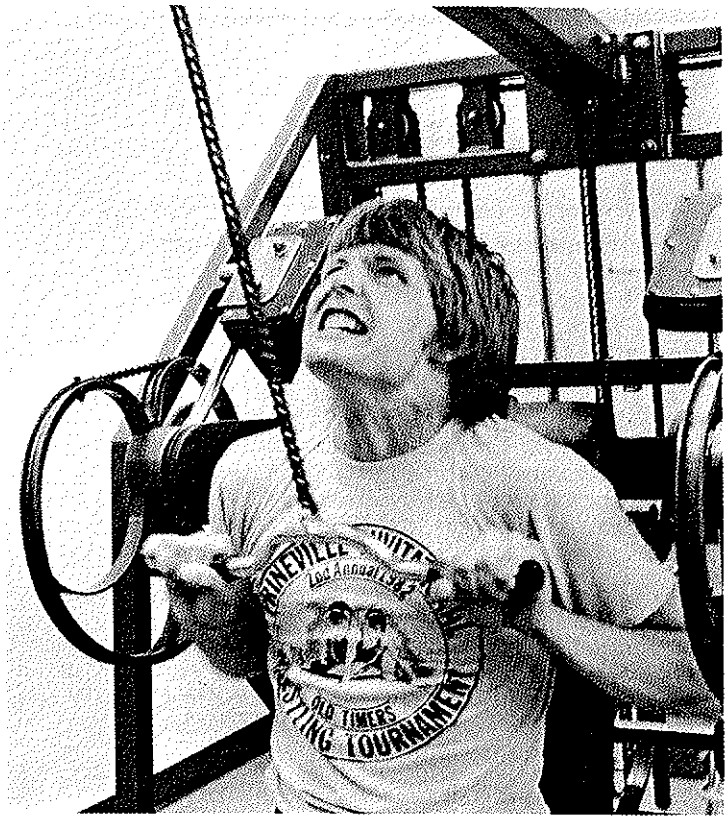
After successfully completing the required courses, students receive a Certificate of Completion and a proficiency statement for the subjects studied. Those who enroll on a weekly basis receive proficiency statements.

Required Courses:

Course No.	Course Title	Credit Hours
OA056A	Typing I	1
OA056B	Typing I	1
OA056C	Typing I	1
OA053	Individualized Filing	3
OA050	Civil Service Exam Prep I	3
OA051	Civil Service Exam Prep II	3
OA052	Civil Service Exam Prep III	3
OA55A	Introduction to Calculators	1
OA55B	Introduction to Calculators	1
OA054A	Introduction to Machine Transcription	1
OA054B	Introduction to Machine Transcription	1

Optional Courses:

OA057A	Typing II	1
OA057B	Typing II	1
OA057C	Typing II	1
OA058A	Shorthand Refresher I	2
OA058B	Shorthand Refresher II	2
OA280	Cooperative Work Experience	6 maximum



Philosophy

(college transfer)

These courses are recommended for students who plan to transfer college credits into a major program in philosophy at the University of Oregon, Oregon State University, or Portland State University. Students may complete requirements for the baccalaureate degree within two additional years.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
Wr121, 122, 123 English Composition	3	3	3
Humanities sequence	3	3	3
Science or mathematics sequence	3-4	3-4	3-4
Social science sequence	3	3	3
Physical education	1	1	1
Electives	3	3	3
Second Year	**4**	**5**	**6**
Hst107, 108, 109 History of World Civilization	3	3	3
Ph201, 202, 203 Problems of Philosophy	3	3	3
Science or foreign language sequence	3-4	3-4	3-4
Humanities sequence	3	3	3
Physical education	1		1
He250 Personal Health		3	
Electives	3		3

Physical Education

(college transfer)

Students who wish to become physical education instructors, athletic coaches, recreational directors or dance majors should begin their professional course work during their first college year in order to complete requirements for a baccalaureate degree in four years. These courses below may be transferred into a professional physical education and/or teacher preparation program offered by Oregon state four-year institutions.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
Wr121, 122, 123 English Composition	3	3	3
Bi101, 102, 103 General Biology	4	4	4
PE194 Professional Activities	2	2	2
PE131 Introduction to Physical Education		3	
Sp111 Fundamentals of Speech	3		
He252 First Aid			3
Humanities sequence	3	3	3
Electives	0-3	0-3	0-3
Second Year	**4**	**5**	**6**
PE294 Professional Activities	2	2	2
Psy201, 202, 203 General Psychology	3	3	3
Social science sequence	3	3	3
He250 Personal Health	3		
FE280A Cooperative Work Experience			4
Electives (PE185 Weight Training, Badminton or Racquetball, He199E Nutrition and weight control and physical fitness classes recommended.)	0-6	0-6	0-6

A one-year pre-professional program is designed for two different groups of students: those who must transfer to a four-year institution before completing requirements for an Associate in Arts degree and those who are interested in alternative careers in physical education or recreation.

One-Year Pre-Professional Program

	Term 1	2	3
Wr121 English Composition	3		
Bi101, 102, 103 General Biology	4	4	4
Science or social science sequence	3-5	3-5	3-5
Humanities sequence	3	3	3
Physical Education PE194 or 294 Professional Activities	2	2	2
Electives	0-3	3-6	3-6

Physics

(college transfer)

These courses are recommended for students who plan to transfer college credits into a major program in physics at Oregon State University, the University of Oregon, or Portland State University.

Students who are prepared to start calculus on entrance should transfer after one year. Those students should consult with an advisor to select the proper courses.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
Mathematics (per placement test)	4	4	4
Ch204, 205, 206 General Chemistry	5	5	5
Wr121 English Composition	3		
Humanities or social science	3	3	3
CS211 Computer Science		4	
English requirement			3
Physical education/health	1-3	1	1
Second Year	**4**	**5**	**6**
Mathematics	4	4	4
Ph211, 212, 213 Physics with calculus	4	4	4
Humanities or social science	3	3	3
English requirement			3
Biological science requirements/ electives	4	4	
Physical education, if required	1	1	1

Political Science

(college transfer)

These courses have been approved by Oregon State University, the University of Oregon, Portland State University, and Southern Oregon Oregon State College for students who plan to transfer college credits into a major program in political science. Students may complete requirements for the baccalaureate degree within two additional years.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
Wr121, 122, 123 English Composition	3	3	3
Humanities sequence	3	3	3
Science sequence	3-4	3-4	3-4
Physical education	1		1
He250 Personal Health		3	
Electives (include Psy201, 202; Sp111 for teachers)	6	3-6	6-9
Second Year	**4**	**5**	**6**
PS201, 202, 203 American Government and State and Local Governments	3	3	3
Physical education	1	1	1
General education sequence in mathematics-science or humanities	3-6	3-6	3-6
Social science sequence other than political science	3	3	3
Electives	3-6	3-6	3-6

Pre-professional Study (medicine, dentistry, veterinary medicine)

(college transfer)

Admission into professional schools of medicine, dentistry, and veterinary medicine is highly competitive, and pre-professional studies must include stipulated courses in basic sciences and general education. Students in pre-professional programs should plan to transfer to an accredited, four-year institution after completing one year at Chemeketa.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
Wr121 English Composition and approved communication skills	3	3	3
Ch104, 105, 106 or Ch204, 205, 206 General Chemistry	5	5	5
Mathematics (per placement test)	4	4	4
Humanities or social science sequence	3	3	3
Physical education	1		1
He250 Personal Health		3	
Electives			3

Psychology

(college transfer)

These courses are recommended for students who plan to transfer college credits into a major program in psychology at the University of Oregon, Oregon State University, Eastern Oregon State College, Portland State University, Western Oregon State College or Southern Oregon State College. Students may complete requirements for the baccalaureate degree within two additional years.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
Wr121, 122, 123 English Composition	3	3	3
Humanities sequence	3	3	3
Science sequence	3-4	3-4	3-4
Social science (Anth101, 102, 103 or Soc204, 205, 206 recommended)	3	3	3
Physical education	1		1
He250 Personal Health		3	
Electives	3	0-4	0-6
Second Year	**4**	**5**	**6**
Psy201, 202, 203 General Psychology	3	3	3
Science or social science sequence	3-4	3-4	3-4
Humanities sequence (foreign language recommended)	3-4	3-4	3-4
Physical education	1	1	1
Electives (OSU: BA232 recommended; UO: Mth095 recommended)	6	6	6

Real Estate

The goal of the Real Estate program is to develop in students an awareness of the complexities of real estate. The required courses cover factors affecting the value, control, use, appreciation, responsibilities, and privileges associated with real property.

Students may specialize in three basic areas: appraisal, brokerage, or escrow and loan officer training.

Men and women with this technical training may fill a variety of jobs in county assessors' or county recorders' offices, city planning departments, the federal housing administration, veterans affairs, title insurance companies, escrow departments, state highway departments, mortgage companies, savings and loan associations, commercial banks, state tax commissions, federal land banks, farm credit administration, building/subdivision firms, real estate brokerages, and appraising offices.

Proficiency in communication skills and mathematics is required for graduation. Placement tests administered by Chemeketa's counseling center assist students in choosing courses consistent with their abilities.

Students may enroll in RE280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

An Associate in Science degree is awarded upon satisfactory completion of the required credit hours for each option.

Appraisal Option

The Associate in Science degree requires 101 credits.

Course No.	Course Title	Credit Hours
Term 1		
	English (per placement test) or general education elective	3
Math061	Business Mathematics	3
BA101	Business Environment	4
BA260	Real Estate Principles I	3
BA211	Financial Accounting I or	
BA051	Accounting Procedures I	4
Term 2		
OA121	Typing I	3
Mth10	Beginning Algebra	4
BA264	Real Estate Finance	3
RE051	Legal Descriptions, Platting and Map Reading	2
CS131	Introduction to Data Processing	3
BA263	Real Estate Law	3
Term 3		
RE055	Applied Mathematics in Real Estate	3
BA262	Real Estate Practices	3
BA214	Business Communications	3
BA226	Business Law I	3
RE061	Real Estate Appraisal I	3
Ec100	Outline of Economics or	
Ec201	Principles of Economics	3
Term 4		
BA232	Introduction to Business Statistics	3
RE062	Real Estate Appraisal II	3
RE056	Escrow Procedures I	3
RE066	Real Estate Investment Analysis I-Principles	3
BA261	Land Use Economics	3
RE280	Cooperative Work Experience or Approved elective	3

Term 5

RE065	Appraisal Report Writing	3
RE069	Elements of Design and Construction	3
RE067	Real Estate Investment Real Estate Appraisal III	3
RE280	Cooperative Work Experience or Approved elective	3

Term 6

RE070	Zoning, Subdivision, and Community Planning	3
RE064	Real Estate Appraisal IV	3
Psy101	Psychology of Human Relations	3
Bld054	Dwelling Construction Under the UBC	3
RE280	Cooperative Work Experience or Approved elective	3

Brokerage Option

The Associate in Science degree requires 101 credits.

Term 1

	English (per placement test) or General education elective	3
Math061	Business Mathematics	3
BA101	Business Environment	4
BA260	Real Estate Principles I	3
BA211	Financial Accounting I or	
BA051	Accounting Procedures I	4

Term 2

BA212	Financial Accounting II or	
BA052	Accounting Procedures II	4
RE055	Applied Mathematics in Real Estate	3
OA121	Typing I	3
BA264	Real Estate Finance	3
RE051	Legal Descriptions, Platting and Map Reading	2
BA263	Real Estate Law	3

Term 3

BA214	Business Communications	3
BA262	Real Estate Practices	3
	Approved elective	3
BA226	Business Law I	3
RE061	Real Estate Appraisal I	3
Ec100	Outline of Economics or Approved elective	3
BA261	Land Use Economics	3

Term 4

RE083	Real Estate Effective Selling	3
RE062	Real Estate Appraisal II	3
RE056	Escrow Procedures I	3
RE066	Real Estate Investment Analysis I-Principles	3
RE280	Cooperative Work Experience or Approved elective	3
BA261	Land Use Economics	3

Term 5

RE057	Escrow Procedures II	3
RE069	Elements of Design and Construction	3
RE067	Real Estate Investment Analysis II-Taxation	3
RE063	Real Estate Appraisal III	3
RE280	Cooperative Work Experience or Approved elective	3

Term 6

RE058	Escrow Procedures III	3
RE070	Zoning, Subdivision and Community Planning	3
RE068	Real Estate Investment Analysis III-Exchange	3
Bld054	Dwelling Construction Under UBC	3
RE280	Cooperative Work Experience or Approved elective	3

Escrow Option

The Associate in Science degree requires 105 credits.

Term 1

	English (per placement test) or General education elective	3
	Math (per placement test)	3
BA101	Business Environment	4
BA260	Real Estate Principles	3
BA211	Financial Accounting or	
BA051	Accounting Procedures	4

Term 2

	English (per placement test) or General education elective	3
	Math (per placement test)	3
BA261	Real Estate Principles II	3
BA264	Real Estate Finance	3
RE051	Legal Descriptions	2
OA061	Introduction to Calculators	2
BA263	Real Estate Law	3

Term 3

BA214	Business Communications	3
BA262	Real Estate Practices	3
OA121	Typing I	3
BA226	Business Law I	3
RE061	Real Estate Appraisal I	3
Ec100	Outline of Economics or	
Ec201	Principles of Economics	3

Term 4

Sp130	Business and Professional Speaking or	
Sp111	Fundamentals of Speech	3
RE056	Escrow Procedures I	3
Psy101	Psychology of Human Relations	3
OA122	Typing II	3
RE066	Real Estate Investment Analysis I-Principles	3
RE280	Cooperative Work Experience or Approved elective	3

Term 5

RE057	Escrow Precedures II	3
RE067	Real Estate Investment Analysis II-Taxation	3
OA116	Office Procedures	3
RE280	Cooperative Work Experience or Approved electives	6

Term 6

RE058	Escrow Procedures III	3
RE068	Real Estate Investment Analysis III-Sales and Exchange	3
RE084	Real Estate Seminar	3
BA074	Public Relations in Business	3
RE280	Cooperative Work Experience or Approved electives	6

Silicon Technology

The short-term Silicon Technology program includes training both in theory and specific skills for men and women seeking careers in the silicon manufacturing industry. The curriculum features self-paced learning laboratories and individualized instruction.

Through a cooperative effort of the college and Siltec Corporation, a laboratory facility on Chemeketa's Salem campus simulates three production departments:

The crystal growing department, using high technology equipment, grows and further processes cylindrical silicon ingots.

The slicing department slices processed silicon ingots into wafers, which then undergo a series of quality operations and checks.

In the polishing department, wafers are polished to a mirror-like finish on one side. They are then cleaned, quality checked, and shipped to customers.

Small Business Management

Small Business Management is a three-year program for owners and spouses who operate small businesses and have access to the financial records of the business. The purpose is to teach record keeping, decision-making and management skills.

Class meetings are held each month, and the instructor visits each business monthly. Instruction includes keeping records, computer analysis of records, cost of operations summaries, and use of records for management decision-making.

Tuition covers the instruction and an annual computer analysis. For enrollment information, call 399-5088.

First Year
9298 Small Business Management I—In-service

Discusses the importance of keeping records, how to measure the progress of a small family business, the uses of business and home records, the importance of inventories and how to keep business accounts current. Also covers balance sheets and monthly summaries, cash flow and cash flow projections, employer's records, social security and income taxes, unemployment compensation, workers' compensation and fair labor standards act, employee relations, and Occupation Safety and Health Administration and safety considerations. Includes depreciation schedules, income tax management and tax planning, end-of-year inventory, and record book closings for computer analysis.

Second Year
9298A Small Business Management II

How to calculate income, self-employment and social security taxes; how to measure business profit and size; the importance of inventories; how to analyze customer service departments and mechanization; labor, equipment and building costs; analysis of major department efficiencies; income tax planning and management; and closing business account books for analysis.

Third Year
9298B Small Business Management III

Covers attributes of successful small business entrepreneurs, determining the most profitable levels of operation, selection of departments, evaluation of customer service and other major departments, evaluation of overhead and general business costs, maximizing income, building sites, merchandise handling, planning and transitional stages, and analysis of records for closing the business year.

Sociology
(college transfer)

These courses are recommended for students who plan to transfer college credits into a major program in sociology at the University of Oregon, Oregon State University, Portland State University, Southern Oregon State College or a program in anthropology and sociology at Eastern Oregon State College. Students enrolling in the SOSC program may complete areas of specialization in sociology, anthropology or social work. EOSC students may specialize in sociology, anthropology or social welfare.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
Wr121, 122, 123 English Composition	3	3	3
Humanities sequence	3	3	3
Science (EOSC: Mth103 recommended)	4	4	4
Social science (EOSC: Anth101, 102, 103; SOSC: Anth207, 208, 209)	3	3	3
Physical education	1		1
He250 Personal Health		3	
Electives	3	0-6	0-6

Second Year	4	5	6
Soc204, 205, 206 General Sociology	3	3	3
Ec201, 202, 203 Principles of Economics	3	3	3
Humanities or science (second sequence)	3-4	3-4	3-4
Physical education	1	1	1
Electives (PSU: Mth103 recommended; PSU, OSU: Mth095 competency recommended; SOSC: Sp111 recommended)	6	6	6

Speech
(college transfer)

These courses are recommended for students who plan to transfer college credits into a major program in speech at the University of Oregon, Oregon State University, Portland State University, or Southern Oregon State College. Students following the program outlined below may complete requirements for the baccalaureate degree within two additional years.

The following recommendations are based on information available as this catalog goes to press. Prior to enrollment, students should consult with Chemeketa's counseling center or an advisor at the institution to which they plan to transfer.

First Year	Term 1	2	3
Wr121, 122, 123 English Composition	3	3	3
Sp111, 112, 113 Fundamentals of Speech	3	3	3
Humanities sequence	3	3	3
First year foreign language	4	4	4
Physical education	1	1	
He250 Personal Health			3
Electives	0-3	0-6	3
Second Year	**4**	**5**	**6**
Social science sequence	3	3	3
Second year foreign language (BA students)	4	4	4
Science	3-4	3-4	3-4
Physical education	1	1	1
Electives	3-6	3-6	3-6

Visual Communications

The Visual Communications curriculum offers students opportunities to gain knowledge, skills, and experience to become press operators, process photographers, and graphic designers. Students may learn to operate a variety of graphic equipment including process cameras, printing presses, densitometers, enlargers, and phototypesetters.

Students may take lower division college transfer courses instead of general education, mathematics and science classes to complete program requirements. Any other deviations from the program must be approved by the department.

Students may enroll in VC280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

An Associate in Science degree is awarded upon satisfactory completion of the required 92 credit hours.

Course No.	Course Title	Credit Hours
Term 1		
	Communication elective	3
Math051	Basic Mathematics	3
Com051	Communication Skills I	3
	Select one*:	
VC051	Graphic Design and Character Generation	
	or	
VC052	Process Photography, Stripping and Platemaking	
	or	
VC053	Presswork and Reproduction Systems	6
Term 2		
Math052	Introduction to Algebra and Geometry	3
Com052	Communication Skills II	3
VC067	Basic Technical Photography	5
	Select one (see term 1):	
	VC051, VC052, VC053	6
Term 3		
Psy100	Introduction to Psychology	3
VC070	Science of Photography	4
	Select one (see term 1):	
	VC051, VC052, VC053	6
Term 4		
VC068	Intermediate Technical Photography	6
	General education elective	3
	Select one*:	
VC061	Advanced Graphic Design	
	or	
VC062	Image Conversion and Image Carriers for Offset Lithography	
	or	
VC063	Advanced Presswork	6
Term 5		
	General education elective	3
	Select one:	
	VC061, VC062 or VC063 (see term 4)	6
	VC071, VC072, VC081, VC082 Special Problems in Graphic Communication** to equal	7
Term 6		
	VC071, VC072, VC081, VC082 Special Problems in Graphic Communication** to equal	16

*VC051, VC052, VC053, VC061, VC062, and VC063 are offered concurrently each term. Students are counseled individually on enrollment.

**VC071, VC072, VC081, and VC082 are offered concurrently each term. Students are counseled individually on enrollment.

Welding Technology

The Welding Technology program has two options: Welding, which requires three terms, and Welding Fabrication, which requires six terms.

Welding Option

The welding option combines training with classes in the background knowledge needed by workers in welding occupations. Students practice and develop their welding skills in the laboratory and may take the Oregon State Department of Commerce examination for certification in arc welding.

Graduates may fill a variety of positions in job specialty production, and maintenance shops, including oxyacetylene burner, MIG welder, arc welder, oxyacetylene welder, semiautomatic welding equipment operator and TIG welder.

A Certificate of Completion is awarded upon successful completion of the required 44 credit hours.

Course No.	Course Title	Credit Hours
Term 1		
Wld051	Basic Arc Welding	5
Wld071	Basic Oxyacetylene Welding	2
Wld056	Blueprint Reading and Sketching	2
Math051	Basic Mathematics	3
Mch062	Shop Safety	1
Wld072	Oxyacetylene Cutting	2
Term 2		
Wld052	Intermediate Arc Welding	6
Wld057	Layout Practices	1
Wld061	Basic Gas Metal Arc Welding (MIG)	2
Wld073	Basic Gas Metal Arc Welding (TIG)	3
Wld081	Welding Metallurgy I	2
Term 3		
Wld062	Advanced Gas Metal Arc Welding (MIG)	3
Wld053	Advanced Arc Welding	3
Wld058	Weld Shop Problems	7
Wld082	Welding Metallurgy II	2

Welding Fabrication Option

The welding fabrication option is for persons who want to acquire the technical knowledge and skills required of workers in welding, fabrication, and related occupations.

Welding fabrication technicians are skilled in the use of oxyacetylene welding and cutting equipment, manual arc, tungsten inert gas and metallic inert gas processes and have a working knowledge of shop blueprints and welding symbols, jig fabrication, and assembly processes.

Graduates may qualify for several types of positions in business and industry such as machinery fabrication, structural fabrication, welding fitting and layout, automatic and semiautomatic welding, automatic flame cutter operation, millwright welding, plant maintenance, and quality control and development.

The program offers students a background in manufacturing materials, processes, and systems including shear and press brake operation, blueprint reading, and shop drawing and layout. The curriculum includes written and oral communications and general education classes and emphasizes related scientific, mathematical, and general mechanical principles.

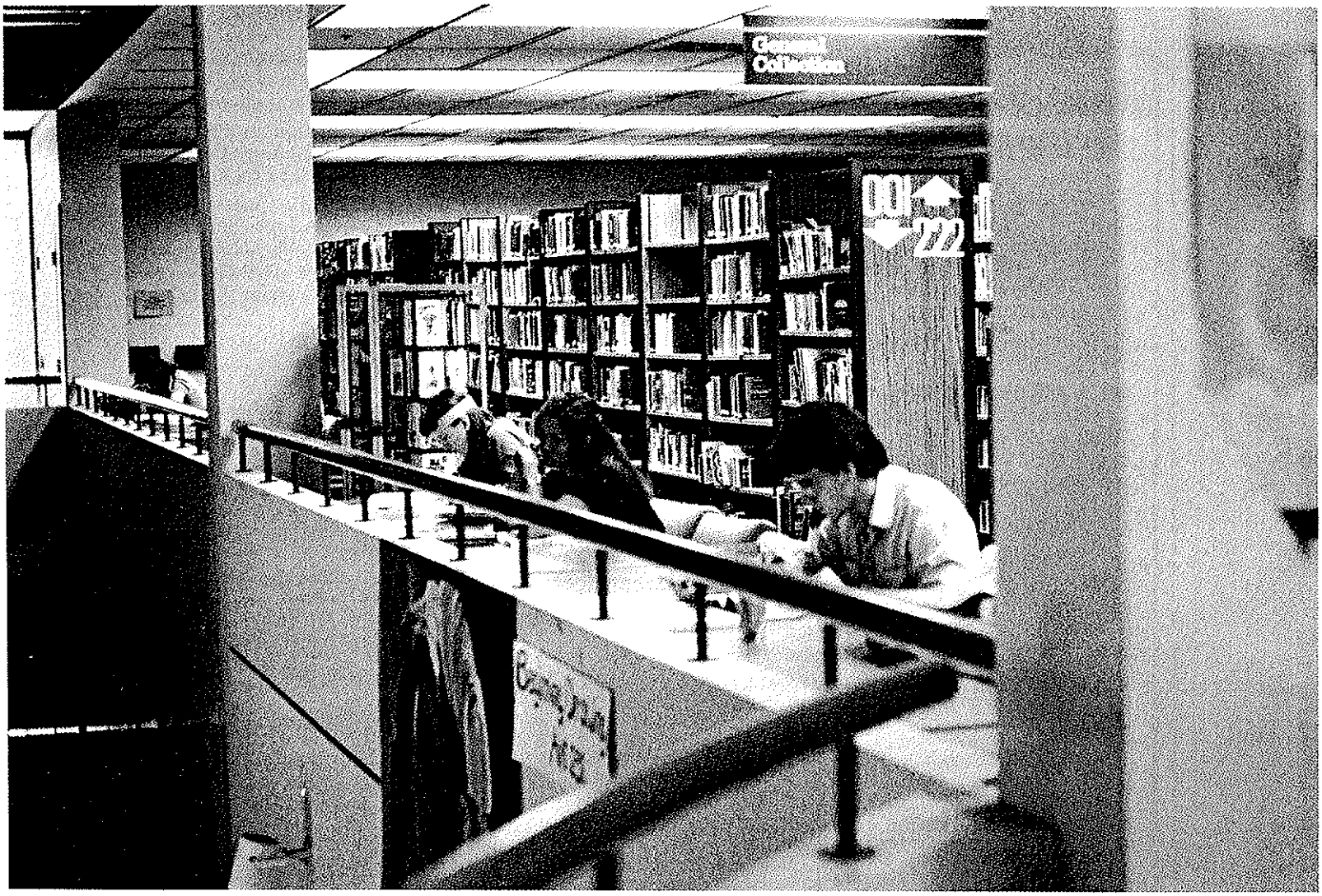
Students may enroll in Wfb280 Cooperative Work Experience with the approval of the lead instructor. For more information, check the catalog index.

At the end of the sixth term students may take the plant and/or pipe certification test administered by the Oregon State Department of Commerce. The fee for this test is determined by the number of students involved and the type of test.

Upon satisfactory completion of the required 101 credit hours the student is awarded an Associate in Science degree.

Course No.	Course Title	Credit Hours
Term 1		
Wld051	Basic Arc Welding	5
Wld056	Blueprint Reading and Sketching	2
Mch056	Machine Shop I	3
Math051	Basic Mathematics*	3
Com051	Communication Skills I*	3
Mch062	Shop Safety	1
Term 2		
Wld071	Basic Oxyacetylene Welding	2
Psy100	Introduction to Psychology*	3
Com052	Communication Skills II*	3
Math052	Introduction to Algebra and Geometry*	3
Wfb091	Fabrication Procedures	2
Mch068	Shop Drawing and Layout II	2
Ph051	Practical Physics*	4
Term 3		
Wfb083	Fabrication Practice I	2
Wld061	Basic Gas Metal Arc Welding (MIG)	2
Wld073	Basic Gas Metal Arc Welding (TIG)	3
Math053	Introduction to Trigonometry with Geometry*	3
Ph052	Practical Physics*	4
Mch097	Employer-Employee Relations	3
Wfb081	Elements of Metallurgy	3
Term 4		
Wfb082	Heat Treatment of Steel	3
Wld052	Intermediate Arc Welding	6
Wfb086	Fabrication Practice II	3
Wfb092	Fabrication Shop Problems I	3
Term 5		
Wfb087	Fabrication Practice III	3
Wfb093	Fabrication Shop Problems II	3
Wld062	Advanced Gas Metal Arc Welding (MIG)	3
Mch057	Machine Shop II	3
	General education elective	
	or	
Wfb280	Cooperative Work Experience	3
Term 6		
Wfb053	Welding for Certification	4
Wfb088	Fabrication Practice IV	3
Wfb063	Production MIG Welding	3
Wfb096	Shop Projects	2
	General education elective	
	or	
Wfb280	Cooperative Work Experience	3

*College transfer courses may be substituted with approval of the lead instructor.



Course Descriptions

Course Descriptions

How courses are numbered

Courses in this catalog are numbered to conform with course numbers used throughout the Oregon state system of higher education.

The numbers following the letters of course numbers indicate these classifications:

001 to 049 Basic skills courses. Credits for these courses do not apply toward a degree and, except for certain mathematics courses, those credits may not be transferred to a four-year college or university.

050 to 099 Occupational courses. Credits for most of these courses may be applied toward an Associate in Science degree. Credits for some of these courses may be transferred as elective credit to Oregon four-year colleges and universities.

100 to 199 Freshman level college courses. Normally, these credits may be transferred to higher education institutions in Oregon.

200 to 299 Sophomore level college courses. Normally, these credits may be transferred to higher education institutions in Oregon.

The list below reflects the diversity and scope of the many credit courses Chemeketa currently offers. All current courses may not be included here; the college may add new classes after this catalog is published.

The numbers in parentheses which follow the titles of some courses indicate the former course numbers. (Chemeketa renumbered many courses in the past year.) The letters **F, W, Sp** and **Su** at the end of a description indicate the term (fall, winter, spring, and summer) the course is usually offered.

For information on when and where classes meet, consult the schedule of classes published each term.

Chemeketa also offers many non-credit personal enrichment and occupational courses not included here. They are also listed in the quarterly schedules of classes.

Accounting, see Business Administration

Agriculture

Agr050 Introduction to Agriculture (6531), 1 class hr/wk, 1 cr. Survey of employment opportunities in agricultural fields, including marketing, sales, management processing, and production. Guest speakers discuss employment, training, the nature of the work activities, salary, etc. **F**

Agr051 Introduction to Oregon Soils (6530), 2 class hrs and 4 lab hrs/wk, 4 cr. Survey of types of soils, problems of soil preparation, drainage, organic matter, soil supplement, pH and soil microorganisms, etc. How to evaluate soil and correct major soil problems for crop production. **F**

Agr052 Soil Management (6536), 2 class hrs and 4 lab hrs/wk, 4 cr. Soils-crop relationship. How to collect soil samples for nematode, insect, and chemical analysis. Crop yield with relation to fertilizer recommendations and methods of applications. How to read and interpret soil and leaf analysis by Oregon State University soil lab. **Prerequisite:** Agr051. **W**

Agr053 Fertilizers and Plant Nutrition (6556), 2 class hrs and 4 lab hrs/wk, 4 cr. Types of fertilizers, fertilizer requirements and regulations, fertilizers and crop problems, and fertilizer calculations and analysis. **Prerequisites:** Math051, Math052, Agr051, and Agr052 (if possible) or consent of instructor. **F**

Agr054 Farm Surveying and Measurement (6539), 2 class hrs and 2 lab hrs/wk, 3 cr. Methods of surveying and equipment used to measure distance, directions and elevations. Includes ground measurements, aerial photography, mapping, legal descriptions of deeds. Includes computation skills used in farm management. **Prerequisite:** Math052 or equivalent, concurrent registration in Agr055 or placement test and consent of instructor. **Sp**

Agr055 Irrigation and Drainage (6540), 2 class hrs and 4 lab hrs/wk, 4 cr. Basic methods of irrigation and drainage. How to plan a sprinkler system, select sprinkler heads, pumps and pipes. Basic water laws. Irrigation and drainage systems. **Prerequisites:** Math051, Math052, and Agr054 or consent of instructor. **Sp**

Agr056 Soil Preparation, Equipment Operation, and Maintenance (6574), 2 class hrs and 3 lab hrs/wk, 3 cr. Review of basic soil preparation, equipment operation and maintenance, and the timing of fall and spring activities. **Offered as needed.**

Agr057 Farm Equipment Management and Maintenance (6557), 2 class hrs and 4 lab hrs/wk, 4 cr. A review of the principles of maintenance and repair of farm equipment emphasizing locally used equipment. **Prerequisites:** Aum091, Math051, and Math052. **W**

Agr058 Spray Equipment, Operation, and Maintenance (6575), 2 class hrs and 3 lab hrs/wk, 3 cr. Basic operations, calibrations, and maintenance of power equipment. How to assemble and calibrate different types of power sprayers. **Prerequisite:** Math051, Math052 or consent of instructor. **Offered as needed.**

Agr059 Construction of Farm Buildings and Farm Building Codes (6561), 3 class hrs/wk, 3 cr. Proper design and material selection for agriculture building construction. Includes pole buildings, greenhouses, fencing, and other farm structures. Covers land use and building code regulations related to agriculture. **Offered as needed.**

Agr061 Plant Science (6532), 2 class hrs and 4 lab hrs/wk, 4 cr. A basic course in anatomy, physiology, morphology, and genetics of agricultural plants. Covers basics of plant identification. **F**

Agr062 Plant Identification (Agricultural and Ornamental) (6542), 2 class hrs and 2 lab hrs/wk, 3 cr. How to recognize common agri-

cultural and ornamental plants. Students prepare a plant collection. **Prerequisite:** Agr061 or consent of instructor. **Sp**

Agr063 Plant Propagation (6570), 2 class hrs and 4 lab hrs/wk, 4 cr. Methods of propagation of fruit and ornamental crops. **Offered as needed.**

Agr064 Nursery and Greenhouse Operations (6577), 2 class hrs and 4 lab hrs/wk, 3 cr. Management aspects of a commercial nursery or improving an existing nursery business. Covers three major areas of greenhouse production, container production, and field-grown nursery production. **F**

Agr065 Nursery and Greenhouse Problems (6568), 3 class hrs/wk, 3 cr. Basic study of pest management (weeds, insects, and diseases), nutrition, soil mixes, and water and other plant cultural requirements. Includes information on selling, salesmanship, and state laws and regulations of nursery stock. Prepares students to take the Certified Nurseryman's test sponsored by the Oregon Association of Nurserymen. **W**

Agr066 Field Crop Production (6548), 2 class hrs and 4 lab hrs/wk, 4 cr. Management and production of grain and legume crops. Includes preparation and management of field crops and harvesting equipment. **Prerequisites:** Agr051, Agr061, Agr062 or consent of instructor. **F**

Agr067 Vegetable Crop Production (6553), 2 class hrs and 4 lab hrs/wk, 4 cr. Production and management of vegetable and seed crops, preparation, fertilization, weed and pest control, and harvesting equipment. **Sp**

Agr068 Seed Crop Production (6571), 3 class hrs and 4 lab hrs/wk, 4 cr. Production and management of seed crops, their requirements, operations, and marketing. Reviews rules and regulations governing seed production. **Offered as needed.**

Agr069 Introduction to Agricultural Microbiology (6567), 2 class hrs and 4 lab hrs/wk, 4 cr. Basic study of such microorganisms as fungi, bacteria, nematode, and viruses related to agricultural crops. **Offered as needed.**

Agr070 Pesticide Safety and Regulations (6537), 2 class hrs/wk, 2 cr. Covers major topics in pesticide safety and current state and federal regulations. Preparation for both private and commercial pesticide applicators, license exams. **W**

Agr071 Weed Identification and Control (6538), 2 class hrs and 2 lab hrs/wk, 3 cr. How to recognize most of the common weeds in the valley. Methods of weed control and management. Students prepare weed collections. **Sp**

Agr072 Plant Diseases (6559), 2 class hrs and 4 lab hrs/wk, 4 cr. Survey and management of common diseases responsible for damage to crops. Recognition of diseases of agricultural crops through laboratory and field studies. **F**

Agr073 Agricultural Insects (6558), 2 class hrs and 4 lab hrs/wk, 4 cr. Common insects and their damage to crops. Insect survey and management, lab and field study. Students prepare insect collections. **Sp**

Agr077 Orchard Production and Practices (6544), 2 class hrs and 4 lab hrs/wk, 4 cr. Management and production of new and established orchard crops. Includes basic production principles and basic skills in layout, fertilization, pest management, pruning and training, grafting, harvesting, marketing and orchard equipment. **Prerequisite:** Agr051, Agr061 or consent of instructor. **W**

Agr078 Small Fruit Production (6573), 2 class hrs and 4 lab hrs/wk, 4 cr. Fundamentals of the establishment, operation, management, and marketing of small fruits. **Offered as needed.**

Agr079 Christmas Tree Production (6560), 2 class hrs and 3 lab hrs/wk, 3 cr. Methods of establishing, operating, and managing Christmas tree farms. **Offered as needed.**

Agr080 Grape Production and Management (6566), 2 class hrs and 3 lab hrs/wk, 3 cr. Establishing, training, managing, and marketing grapes in the Willamette Valley. **Offered as needed.**

Agr081 Plant Clinic (6569), 1 class hr and 3 lab hrs/wk, 2 cr. How to recognize problems associated with agricultural crops. **Offered as needed.**

Agr083 Seed Quality and Testing (6572), 2 class hrs and 4 lab hrs/wk, 4 cr. Study of seed cleaning, processing, grading, and testing techniques. Basic identification of weed seeds, insects, and diseases associated with seeds. Reviews programs of seed certification and phytosanitary certificate requirements. **Offered as needed.**

Agr084 Elevator Operations (6564), 2 class hrs/wk, 2 cr. A study of elevator operations and maintenance and methods used for storage, fumigating, and cleaning. **Offered as needed.**

Agr086 Agricultural Economics and Farm Management (6543), 3 class hrs/wk, 3 cr. Introduction to farm management, marketing, finance and land economics. **Prerequisite:** Math051, Math052, BA051 or equivalent or consent of instructor. **F**

Agr087 Agricultural Marketing (6550), 3 class hrs/wk, 3 cr. Methods of marketing agricultural products, cooperative marketing, price determination, margins, costs, profits, marketing agreements, and commodity markets. **Prerequisites:** Math051, Math052 or consent of instructor. **W**

Agr088 Agricultural Finance and Credit (6552), 3 class hrs/wk, 3 cr. Farm finance requirements, credit arrangements and sources, cash flow, cost analysis, taxes, insurance, and farm capital management. **Sp**

Agr089 Farm Records (6565), 3 class hrs/wk, 3 cr. Farm record keeping and budget analysis. Cost accounting of different farm operations. **W**

Agr090 Agriculture Seminar (6554), 1 class hr/wk, 1 cr. Formal presentation and discussions of topics in agriculture technology. Includes students and instructors. **Offered as needed.**

Agr280A-L Cooperative Work Experience (Ag280A-L), 1-12 cr. Places students in a business, industry or agency for on-the-job training and experience related to instruction. Field experience supervised by college instructors and work experience coordinators. **Offered as needed.**

Allied Health, see also Dental Assisting, Emergency Medical Technology, Health Education, Medical Assisting, and Nursing.

AH050 Health Occupations Overview (5700), 1 class hr/wk, 1 cr. Concepts for organization of resources for health care and services, the role of health workers as members of a health team, and the rights and responsibilities of patients as members of a health team. **F, W, Sp, Su**

AH059 Survey of Human Disease (5150), 3 class hrs/wk, 3 cr. An overview of human pathology, including etiology, injury and illness. **Offered as needed.**

AH071 Multimedia First Aid (5513), 1 class hr/wk, 1 cr. Fundamentals of first aid theories and procedures. Upon satisfactory completion, student receives American National Red Cross Multimedia First Aid card. Meets Occupational Safety and Health Administration requirements. **F, W, Sp, Su**

AH080 Crisis Intervention (5147), 3 class hrs/wk, 3 cr. Intervention in behavioral crises of sudden death, suicide, rape, murder, vehicle accidents, disease, trauma, and child abuse. Resources supporting behavioral patterns and handling emotional stress of the individual. Coping with emotional conflict within oneself. **Sp**

AH199 Issues in Allied Health, 3 class hrs/wk, 3 cr. A review of contemporary issues and developments in health care and related fields. **Offered as needed.**

AH199C-F EMT Issues, variable class hrs/wk, variable cr. Focuses on important current topics in emergency medical technology such as laws, practices, equipment, techniques, and recent developments. **Prerequisite:** Consent of instructor. **Offered as needed.**

AH199N The Nation's Health, 3 class hrs/wk, 3 cr. A survy of issues surrounding the American health care system and the role of medical care in relation to the health of Americans, from historical, ethical, political, economic, social, and personal perspectives. **W**

Anthropology

Anth101 Human Evolution, 3 class hrs/wk, 3 cr. Study of the human species and its place in nature. Covers physical and cultural human evolutionary development, evolutionary theory and evidence for human evolution in the hereditary process, the fossil record, primate evolution, human morphology, and the nature of race. **F, W, Su**

Anth102 Archeology, 3 class hrs/wk, 3 cr. A study of unrecorded human history. Examines human's prehistoric development, archeological method and theory, and techniques for dating the past. Emphasizes the agricultural revolution and the rise of such civilizations as the Sumarians, Egyptians, Harappans, Chinese, Mayans, Aztecs, and Incas. **W**

Anth103 Introduction to Cultural Anthropology, 3 class hrs/wk, 3 cr. A survey of culture and how it structures "human nature." Examines cross-cultural methodology and anthropological theory, language, economic systems, technology, social orientation, political systems, art, religion, warfare, the nature of play, and the problem of controlling culture and managing society. **Sp**

Anth199 Introduction to Semantics, 3 class hrs/wk, 3 cr. The function of language and its symbols. Includes consideration of how adequately language can represent man's total environment and whether analysis of language use can increase our understanding of human behavior. **Offered as needed.**

Anth207 Cultural Anthropology, 3 class hrs/wk, 3 cr. An analysis of the significance of culture for humans, its diverse forms and degrees of elaboration among different groups of people. Emphasizes the divisions of anthropology and the rise of anthropological theory, the structure of language and how it transmits culture, the varieties of human subsistence patterns and technologies, and interdependence of heredity, society, and environment. **F**

Anth208 Cultural Anthropology, 3 class hrs/wk, 3 cr. A study of human social orgainizations and political forms, the nature of cross-cultural belief systems, art, and ritual. **W**

Anth209 Cultural Anthropology, 3 class hrs/wk, 3 cr. Cultural growth and expansion, the nature of culture change and adaptation of new culture patterns, effects of technical assistance to developing nations, and ethics of applied anthropology. **Sp**

Art

Art115, 116, 117 Basic Design, 2 class hrs and 2 lab hrs/wk, 3 cr. An introduction to basic principles of design. Art115: form, line, shape, value, texture. Art116: color. Art117: three-dimensional design. **Prerequisite:** Courses taken in sequence or with consent of instructor. **Art115: F; 116: W; 117: Sp**

Art204, 205, 206 Introduction to Art History, 3 class hrs/wk, 3 cr. Visual arts from prehistoric to modern times. Studies selected works of painting, sculpture, architecture, and other arts in relation to the cultures that produced them. **Art 204: F; 205: W; 206: Sp**

Art231 Beginning Drawing, 6 lab hrs/wk, 3 cr. Basic principles of drawing, seeing, observing and developing traditional skills with a variety of drawing media. Subject matter ranges from still life to photographic imagery. Includes brief introduction to figure drawing. **F, W**

Art232 Intermediate Drawing: The Figure, 6 lab hrs/wk, 3 cr. Continuation of Art231, concentrating on life drawing. **Prerequisite:** Art231. **W, Sp**

Art233 Advanced Drawing, 6 lab hrs/wk, 3 cr. Continuation of Art232 emphasizing development of personal style and expression, personal imagery, and mixed media approaches. **Prerequisite:** Art232. **Sp**

Art244 Stained Glass, 6 lab hrs/wk, 3 cr. Basic techniques of stained glass construction, choosing materials and tools, designing, cutting, leading, foiling, soldering, and finishing. Emphasis on design. May be repeated. **F, W, Sp**

Art255 Pottery I-Handbuilding, 6 lab hrs/wk, 3 cr. Three-dimensional design, shape, form, basic construction techniques for beginners. Lab fee, $8. **F, W, Sp**

Art256 Pottery II-Wheel Throwing, 6 lab hrs/wk, 3 cr. Wheel throwing methods, glaze calculations, and kiln firing techniques. **Prerequisite:** Art255 or consent of instructor. Lab fee, $8. **W**

Art257 Pottery III-Advanced Pottery, 6 lab hrs/wk, 3 cr. Individual development of techniques, directions and ideas. Includes marketing, sales, and public showings. **Prerequisite:** Art 256. Lab fee, $8. **Sp**

Art260 General Photography, 2 class hrs and 4 lab hrs/wk, 3 cr. Fundamental and technical aspects of photography. Covers types of cameras, f/systems, shutter speeds, film types and specifications, developing, basic enlarging, composition, familiarity with basic materials and processing, vocabulary, and equipment. Directed photographic assignments and photo lab work. Students supply cameras, film, paper, exposure meters, tripods, and flash equipment. College furnishes enlargers, chemicals, and other incidental darkroom equipment for students interested in photography as a part of general education. **W, Sp, Su**

Art261 Intermediate Photography, 2 class hrs and 4 lab hrs/wk, 3 cr. Covers varied materials and processing techniques, such as light measuring, gamma, densitometry, interpretation of and uses of technical data, improving design, and aesthetic approaches to photography. Incorporates use of darkroom techniques, densitometers, special films, and special developers into project-oriented assignments. **Prerequisite:** Satisfactory completion of VC067 or Art260 or a passing score on the final exam, and acceptance of student's portfolio or consent of instructor. **W, Sp, Su**

Art271 Beginning Silkscreen Printing, 6 lab hrs/wk, 3 cr. An introduction to techniques of silkscreen printing. **Prerequisite:** Art231 or consent of instructor. Lab fee $8. **F, W, Sp**

Art272 Intermediate Silkscreen Printing, 6 lab hrs/wk, 3 cr. Mastery of the techniques of silkscreen printing introduced in Art271. **Prerequisite:** Art271. **F, W**

Art273 Advanced Silkscreen Printing, 6 lab hrs/wk, 3 cr. Continuation of Art272. Mastery of the techniques of silkscreen printing. **Prerequisite:** Art272. **F, W**

Art281 Painting, 6 lab hrs/wk, 3 cr. An introduction to basic painting of traditional subject matter. Stresses disciplined study, observation and representation, composition, attention to detail, use of color, and personal expression. May be repeated. **Prerequisite:** Art231 or consent of instructor. **W, Sp**

Art284 Watercolor, 6 lab hrs/wk, 3 cr. An introduction to problems and techniques of watercolor painting. Fundamental skills and approaches to traditional subject matter, characteristics of watercolor, compositional problems, color problems, observation of detail, and personal expression. **Prerequisite:** Art231 or consent of instructor. **Sp**

Art285 Intermediate Watercolor, 6 lab hrs/wk, 3 cr. Continuation of Art284 to develop technical control and acquire formal knowledge of art in general. **Prerequisite:** Art284 or consent of instructor. **F, W, Sp**

Art286 Advanced Watercolor, 6 lab hrs/wk, 3 cr. A continuation of problems and explorations begun in Art284 and Art285. A self-motivated contract class. **Prerequisite:** Art284 and Art285 or consent of instructor. **F, W, Sp**

Art291 Sculpture, 6 lab hrs/wk, 3 cr. Introduces the properties and characteristics of selected materials of sculpture. Elementary considerations of form through technical and compositional exercises. **F**

Art292 Ceramic Sculpture, 6 lab hrs/wk, 3 cr. An introduction to the potential and characteristics of clay as a creative sculptural medium. **W**

Art293 Intermediate Sculpture/Foundry Casting 6 lab hrs/wk, 3 cr. An introduction to lost wax casting processes using non-ferrous metals as casting materials. **Prerequisite:** One of the following: Art117, 255, 291, 292 or consent of instructor. Lab fee, $8. **Sp**

Atmospheric Sciences, see also General Science

AtS101 Rudiments of Meterology, 3 class hrs/wk, 3 cr. A descriptive treatment of winds, air masses, fronts, clouds, precipitation, storms, and weather forecasting. **Offered as needed.**

Automotive Technology

Aum050 Introduction to Automotive (3000), 4 class hrs and 8 lab hrs/wk, 3 cr. An in-depth look at automotive mechanics' duties and job opportunities, including present and future employment needs. Discusses complex and rapidly changing expectations of auto mechanics. **Su**

Aum051 Internal combustion Engines (3300), 3 class hrs and 9 lab hrs/wk, 6 cr. Construction, working principles, and methods of servicing internal combustion engines. Proper use of tools and equipment. Engines are disassembled, studied, serviced, and reassembled properly, using accepted rebuilding and servicing procedures. Lab fee, $12. **F**

Aum052 Automotive Machine Shop (3308), 2 class hrs and 3 lab hrs/wk, 3 cr. Automotive machine shop operations including cylinder head and block reconditioning. Stresses precision machining such as knurling, boring, honing, and bearings fitting. **Prerequisite:** Aum051 or consent of lead instructor. Lab fee, $8. **Sp**

Aum056 Automotive Shop Safety (3303), 1 class hr/wk, 1 cr. A survey of principles of safety for the auto industry. Uses films and case studies to develop awareness of hazards and positive attitudes toward the prevention of accidents. **F**

Aum057 Auto Chassis I (3306), 2 class hrs and 3 lab hrs/wk, 3 cr. Theory and service of automotive drum and disk brake systems, manual and power brakes. Service and rebuilding of brake system components. Lab fee, $5. **F**

Aum058 Auto Chassis II (3307), 2 class hrs and 3 lab hrs/wk, 3 cr. Theory and service of automotive front and rear suspension systems, power and manual steering mechanisms, wheel balancing, and front-end alignment. Lab fee, $5. **W**

Aum061 Power Trains (3305), 3 class hrs and 6 lab hrs/wk, 5 cr. Theory and service of automotive power trains. Covers drive shafts and universal joints, clutches and linkage, manual transmissions, rear axles, and differentials, open and limited slip. Lab fee, $8. W

Aum062 Technical Diagram Interpretation (3309), 1 class hr and 3 lab hrs/wk, 2 cr. Communication through discussion and sketches relating to the automotive field. Includes use of manuals, work orders, wiring and vacuum diagrams, and metric systems. W

Aum063 Automatic Transmissions (3325), 3 class hrs and 4 lab hrs/wk, 4 cr. Fundamentals of automatic transmission operation, including methods of gear change, power flows, and basic hydraulic principles used in automatic transmissions. Emphasizes servicing and proper overhaul of automatic transmissions. **Prerequisite:** Aum061, Aum057 or consent of lead instructor. Lab fee, $15. F

Aum066 Fuel Systems and Carburetion I (3301), 2 class hrs and 3 lab hrs/wk, 3 cr. Principles of carburetion and carburetor circuits, fuel systems, gasoline and engine variables pertinent to gasoline, one- and two-barrel carburetor service and adjustment, and fuel pumps. Sp

Aum067 Fuel Systems and Carburetion II (3316), 3 class hrs and 4 lab hrs/wk, 4 cr. Theory and service of fuel systems; selected one-, two-, and four-barrel carburetors; multiple carburetion; and automotive fuel injection (introduction). Includes service and adjustment of carburetors, manifolding, carburetor special features, gasoline and air-fuel ratios coverage. **Prerequisite:** Aum066 or consent of lead instructor. F

Aum068 Automotive Auxiliary Systems (3319), 3 class hrs and 2 lab hrs/wk, 4 cr. Theory and service of automotive auxiliary units including power windows, power seats, windshield wiper units, cruise controls, vacuum systems and controls, air conditioning, and other automotive assist units. W

Aum071 Automotive Repair I (3327), 1 class hr and 9 lab hrs/wk, 4 cr. Work experience on prescribed automobile repair jobs using acquired skills. **Prerequisite:** Third term standing or approval of lead instructor. Lab fee, $10. Sp

Aum072 Automotive Repair II (3328), 1 class hr and 9 lab hrs/wk, 4 cr. Continuation of Aum071, with other jobs to provide experience and develop speed. **Prerequisite:** Fourth term standing or approval of lead instructor. Lab fee, $10. Sp

Aum073 Automotive Repair III (3329), 1 class hr and 9 lab hrs/wk, 4 cr. A continuation of Aum072. **Prerequisite:** Fifth term standing or consent of lead instructor. Lab fee, $10. W

Aum076 Automotive Electrical Systems I (3304), 3 class hrs and 4 lab hrs/wk, 4 cr. Basic automotive electrical fundamentals and principles, theory and service of conventional ignition systems, charging systems except solid state, starting systems and batteries, meters, gauges, and instruments. Sp

Aum077 Automotive Electrical Systems II (3317), 3 class hrs and 4 lab hrs/wk, 4 cr. Theory and service of automotive ignitions, conventional and electronic; charging systems; starting systems and batteries; pertinent solid-state, devices, oscilloscopes and instruments. **Prerequisite:** Aum076 or consent of lead instructor. Lab fee, $5. W

Aum078 Automotive Service Operations (3320), 2 class hrs/wk, 2 cr. Duties and responsibilities of parts and service managers. Covers methods of organizing service personnel and shop facilities, introduction to shop layout, operation of parts rooms, and problems common to both parts and service departments. W

Aum081 Tune-up and Diagnosis (3330), 3 class hrs and 9 lab hrs/wk, 6 cr. Tune-up and diagnosis precedures of gasoline internal combustion engines. Includes use of diagnostic equipment on vehicles during laboratory practices, repair and diagnosis of electrical and fuel systems in relation to tune-up. Keyed to experience on components and vehicles during lab periods. **Prerequisite:** Aum067 and Aum077 or consent of lead instructor. Lab fee, $10. Sp

Aum082 New Automotive Developments (3326), 3 class hrs/wk, 3 cr. Changes in the automotive field, including various emission control devices of major brand automobiles. Covers fuel injection systems, turbo-charging, and electronic engine control devices. Sp

Aum083 Automotive Materials (3302), 2 class hrs/wk, 2 cr. Materials and material production commonly associated with the automobile. Includes uses and application of materials. Sp

Aum091 Power Systems (4172), 3 class hrs and 4 lab hrs/wk, 4 cr. The operation, maintenance, and minor repair of two-cycle and four-cycle gasoline and diesel engines. Includes proper procedures in making minor service adjustments and repairs. Laboratory and classroom experience in the theory of operation and the component parts of these engines. Lab fee, $5. Sp

Aum092 Automotive Diesel Engines (3310), 3 class hrs and 2 lab hrs/wk, 4 cr. Construction, working principles, and methods of servicing automotive diesel engines. **Prerequisite:** Aum051. Lab fee, $5. Sp

Aum280 Cooperative Work Experience, see Agr280.

Auto Parts Sales

AuP081 Engine Theory (3340), 2 class hrs and 3 lab hrs/wk, 3 cr. Construction, working principles, and methods of servicing internal combustion engines. Emphasizes location and identification of various parts and components. Compares after-market parts with original equipment. Students take engines apart, study internal parts and reassemble engines. F

AuP082 Chassis Theory (3341), 2 class hrs and 3 lab hrs/wk, 3 cr. Fundamental principles of automotive fluid power systems relating to brakes. Covers basic components of fluid power systems and how to combine them to build circuits. Emphasizes location and identification of various parts and components. Compares after-market parts with original equipment. F

AuP083 Automotive Parts I (3335), 2 class hrs and 6 lab hrs/wk, 4 cr. An in-depth study of the automotive parts industry, from manufacturer and rebuilder to retail automotive parts outlet. Includes methods of parts catalog layout, supplements, revisions, catalog indexing, price sheets, identification of serviceable parts, and filling of parts orders. F

AuP086 Power Train Theory (3343), 2 class hrs and 3 lab hrs/wk, 3 cr. Covers the operation and some repair procedures of essential power train components of automobiles. Emphasizes location and identification of various parts and components. Compares aftermarket parts with original equipment. W

AuP087 Auto Electrical Theory (3344), 2 class hrs and 3 lab hrs/wk, 3 cr. Basic electrical terminology, fundamentals, and principles of operation applying to circuitry of automobiles. Covers theory of operation of ignition, charging, cranking, and lighting systems. Emphasizes location and identification of various parts and components. Compares aftermarket parts with original equipment. W

AuP088 Automotive Parts II (3338), 2 class hrs and 6 lab hrs/wk, 4 cr. Instructions on automotive parts catalog and catalog indexing systems, inventory systems, and parts classification. Use of telephone, merchandise displays, and contacts with customers. Observations of automotive parts systems and methods of wholesale and retailing automotive parts at area dealerships and parts outlets. W

AuP091 Auxiliary Systems (3345), 2 class hrs and 3 lab hrs/wk, 3 cr. Operation and identification of parts and components in auxiliary systems including vacuum controls, power steering, and other assist units. Stresses new developments in areas of emission controls and electronic ignitions. Sp

AuP093 Fuel Systems (3348), 2 class hrs and 3 lab hrs/wk, 3 cr. An introduction to automotive fuel injection. Covers fundamental principles of carburetion and the basis of fuel systems with detailed instruction on basic carburetor circuits. Emphasizes location and identification of various parts and components of single barrel, two-barrel and four-barrel carburetors. Sp

AuP096 Automotive Parts III, 2 class hrs and 6 lab hrs/wk, 4 cr. Parts salesmanship and the operation of an automotive parts store. Covers automotive service tools and equipment, shop supplies, chemicals, and related automotive items. Includes practical work experience. Sp

AuP280 Cooperative Work Experience, see Agr280.

Banking and Finance, see also Business Administration

Ban054 Inside Commercial Banking (9033), 3 class hrs/wk, 3 cr. Identifies topics and issues pertinent to bankers and discusses solutions and responses. Includes an historical overview of American banking, demands made on banks by changing constituencies, and modern approaches to planning and to obtaining and utilizing funds. **Prerequisite:** background of experience or training in banking recommended. **Offered as needed.**

Ban055 Interviewing/Counseling (9283), 1 class hr/wk, 1 cr. An in-depth study of various aspects of interviewing and counseling. May help students in supervising others and improving management skills. **Offered as needed.**

Ban056 Introduction to Commercial Lending (9244), 3 class hrs/wk, 3 cr. A survey of a bank's commercial lending division and its functions. Includes aspects of commercial lending: economic, lending, management of loan portfolios, and influence of regulation and business development. **Prerequisite:** Current employment in banking or education background or banking training. **Offered as needed.**

Ban057 Loan and Discount Series-AIB (9245), 3 class hrs/wk, 3 cr. Covers promissory notes, supporting documents, concepts of secure transactions; how to calculate interests and discount commercial paper; guaranties; general collateral agreements; examination and processing of documents accompanying notes secured by bonds, stocks, and savings accounts; and concepts of attachment, perfections, priority, defaults, and foreclosure. Specifically useful for notetellers and commercial lending clerks. **Prerequisite:** Employment in banking industry preferred. **Offered as needed.**

Ban062 New Accounts Seminar-AIB (9034), 1 class hr/wk, 1 cr. Basic handling of new accounts. Covers functions, identification and protection, elements of a check, endorsements, and marketing services of other banks. **Offered as needed.**

Ban065 Speaking to Communicate (9249), 1 class hr/wk, 1 cr. How to prepare and present speeches with specific messages for specific audiences in order to achieve specific responses. **Sp**

Ban066 Supervisory Training-AIB (9257B), 3 class hrs/wk, 3 cr. Theoretical and practical skills for supervisors. Covers management roles and responsibilities, management teamwork, task analysis, job performance techniques, employee orientation, and delegation of responsibilities. **Prerequisite:** Current or previous bank employee experience preferable. **W**

Ban067 Teller Training and Development (9250), 3 class hrs/wk, 1 cr. Helps bank tellers develop and improve abilities and knowledge essential in performance of their duties. Emphasizes dealing with customers and following normal banking procedures. **Prerequisite:** Employment in a bank and recommendation of supervisor. **F, Sp**

Ban068 Time Management (9524), 3 class hrs/wk, 1 cr. Techniques, strategies, and principles of time management. How to pinpoint key strengths and weaknesses and initiate corrective action. **Offered as needed.**

Ban070 Personality and Stress-AIB (9246), 3 class hrs/wk, 3 cr. Transactional analysis, stress management skills, and techniques useful in dealing with stressful job situations. Helps people understand their reactions to people and situations. How to analyze one's personality and learn to make needed changes to cope with day-to-day stress. **Offered as needed.**

Ban071 Bank Letters and Reports (9252), 3 class hrs/wk, 3 cr. How to plan and write effective letters and reports. **Offered as needed.**

Ban073 Advanced Teller Training-AIB (9290), 1 class hr/wk, 1 cr. Advanced training for professional tellers with one or more years of experience. An individualized analysis and program. **Prerequisite:** Ban067 and one year experience as a commercial bank teller. **W**

Ban077 Transactional Analysis on the Job (9271A), 3 class hrs/wk, 3 cr. How to assess one's life and develop framework for making basic changes and choices which can be applied easily. **Offered as needed.**

Ban078 Training for Results (9274), 3 class hrs/wk, 1 cr. A mini workshop on training skills and techniques for supervisors and branch or departmental trainers. Step-by-step teaching and training methods to encourage better performance of employees. **Offered as needed.**

Ban081 Accounts Receivable Financing (9526), 3 class hrs/wk, 3 cr. Aspects of accounts receivable financing, including functions, values, inherent risks, credit line controls, collection procedures, and examination of borrower's records. **Prerequistite:** Current or previous experience as a bank employee preferred or training in banking. **Offered as needed.**

Ban086 Consumer Counselor Training (9266), 3 class hrs/wk, 3 cr. Effective interview techniques and strategies for discovering and meeting customer needs. Assertiveness training to help students develop expertise in effective communication with customers. **Prerequisite:** Business experience desirable. **Offered as needed.**

Ban087 Introduction to Savings Association Business-IFE 060 (9267), 3 class hrs/wk, 3 cr. The role of savings associations in the modern business world. Historical development, present day organization, competition and future direction. **Offered as needed.**

Ban089 Mortgage Loan Servicing-IFE (9280), 3 class hrs/wk, 3 cr. Procedures for loan servicing. Includes processing payments, escrow accounts, real estate taxes, insurance and contract changes; securing delinquent loans; foreclosures and real estate. **Prerequisite:** Basic mathematical skills. **Offered as needed.**

Ban091 Money Management, 3 class hrs/wk, 3 cr. How to plan, control, and direct financial resources effectively and profitably. For students who are or want to become savings and loan professionals. **Prerequisite:** Satisfactory completion of the equivalent of Math061. **Offered as needed.**

Ban092 Consumer Credit Operations-IFE, 3 class hrs/wk, 3 cr. Covers consumer credit terms, concepts, and practices. Introduces basic categories and types of consumer credit, legal authority and guidelines for savings associations, loan math, and functions and activities of savings association consumer credit operations. **Prerequisite:** BA292 or current employment in a savings and loan association. **Offered as needed.**

Ban094 Savings Accounts-IFE (9289), 3 class hrs/wk, 3 cr. A study of savings and loan associations savings accounts, including types of ownership, and unique problems. Geared for employees in savings and loan association savings departments, especially those with customer or supervisor/manager responsibilities. **Offered as needed.**

Ban095 Savings Accounts Administration (9289A), 3 class hrs/wk, 3 cr. Continuation of Ban094, emphasizing the administration and insurance of savings accounts. **Prerequisite:** Ban087 and Ban094. **Offered as needed.**

Ban096 Supervisory Personnel Management I-IFE (9277), 3 class hrs/wk, 3 cr. Basic knowledge and concepts necessary to be an effective supervisor. An up-to-date review of supervisory principles and concepts. **Prerequisite:** Business background helpful. **Offered as needed.**

Ban097 Supervisory Personnel Management II-IFE (9277A), 3 class hrs/wk, 3 cr. A continuation of Ban096. **Prerequisite:** Ban096. **Offered as needed.**

Ban280 Cooperative Work Experience, see Agr280.

Biology

Bi060 Basic Science Principles (5601), 2 class hrs and 2 lab hrs/wk, 3 cr. Introductory concepts of physics, chemistry, and microbiology. Includes practical application of problem solving, scientific observation and measurement, use of equipment, and basic laboratory techniques. Lab fee, $4. **F**

Bi071 Body Structure and Function I (5615), 3 class hrs and 1 lab hr/wk, 3 cr. Normal structures and functions of the human body, chemical principles, characteristics of the cell as basis for life, organization of tissues, organs, and systems. Lab fee, $4. **F**

Bi072 Body Structure and Function II (5616), 3 class hrs and 1 lab hr/wk, 3 cr. A continuation of Bi071. **Prerequisite:** Bi071. Lab fee, $4. **W**

Bi101 General Biology, 3 class hrs and 3 lab hrs/wk, 4 cr. Diversity of organisms, ecological concepts, effects and consequences of human alteration on natural ecosystems. For students not majoring in biology. May be taken in sequence with Bi102 and Bi103. Lab fee, $6. **F**

Bi102 General Biology, 3 class hrs and 3 lab hrs/wk, 4 cr. Genetics, evolution, and behavior. See Bi101. Lab fee, $6. **W**

Bi103 General Biology, 3 class hrs and 3 lab hrs/wk, 4 cr. Cell biology, plant and animal physiology, human biology. See Bi101. Lab fee, $6. **Sp**

Bi121 Human Anatomy and Physiology, 3 class hrs and 3 lab hrs/wk, 4 cr. In-depth examination of the structure and function of the human body. First of a two-term sequence. Includes review of chemical principles and cell characteristics as a basis for structure and function, plus study of the integumentary, skeletal, muscular, and nervous systems. **Prerequisite:** Ch110 or equivalent. Lab fee, $6. **F, W, Sp, Su**

Bi122 Human Anatomy and Physiology, 3 class hrs and 3 lab hrs/wk, 4 cr. Continuation of Bi121. Covers endocrine, circulatory, respiratory, digestive, excretory, and reproductive systems, plus an introduction to human genetics. **Prerequisite:** Bi121 or consent of instructor. Lab fee, $6. **F, W, Sp, Su**

Bi123 Microbiology, 3 class hrs and 3 lab hrs/wk, 4 cr. A survey of various microorganisms (bacteria, algae, fungi, protozos, viruses) and their effects upon man and the environment. Lab fee, $6. **W**

Bi124 Medical Microbiology, 3 class hrs and 3 lab hrs/wk, 4 cr. A survey of bacteria and other microorganisms emphasizing their impact upon human health. Includes discussion of infection, immunity, common pathogens, and mechanisms of control. **Prerequisite:** Bi123 or Ch110. Lab fee, $6. **F, Sp, Su**

Bi200 Principles of Ecology-Field Biology, 2 class hrs and 4 lab hrs/wk, 3 cr. A study of the broad concept of ecology. Includes class discussions and field trips. Lab fee, $6. **Sp**

Black Studies

BS202, 203, 204 Introduction to Afro-American History, 3 class hrs/wk, 3 cr. An introductory history of the black race in the new world. Lectures and discussions plus speakers and films. Traces pertinent contacts between African and European worlds from ancient times to the present. How to re-examine traditional historical concepts and information from the black perspective. **Offered as needed.**

BS261 Black Economic Experience, 3 class hrs/wk, 3 cr. An introductory sequence of the historical context and development of contemporary urban and black economic parameters from the Civil War through early black business enterprises. A lecture-discussion course, augmented with speakers and film. **Offered as needed.**

BS262 Black Economic Experience, 3 class hrs/wk, 3 cr. The modern city-state or megalopolis as a special type of urban structure whose inner perimeters circumscribe the majority of America's black population. The classic structure with its real or implied economic opportunities is balanced against the realities of the current situation. **Offered as needed.**

Botany

Bot201, 202, 203 General Botany, 3 class hrs and 3 lab hrs/wk, 4 cr. Principles of plant biology. Covers introductory ecological principles, cell structure photosynthesis, respiration, genetics, and evolution of the plant kingdom including bacteria, algae, fungi, mosses, ferns, conifers and flowering plants. Lab fee, $6 each course. **Bot201: F; 202:W; 203: Sp**

Building Inspection

Bld050 Introduction to Uniform Building Code (6423), 3 class hrs/wk, 3 cr. Historical and legal foundations of building codes. Compares performance versus specification standards. Covers Uniform Building Code, Uniform Building Code Standards, Uniform Mechanical Code, Uniform Plumbing Code, Uniform Housing Code, and National Electrical Code. Introduction to usage, development, and format of Uniform Building Code and supporting codes. **F**

Bld051 Building Code I (6116), 3 class hrs/wk, 3 cr. Study and use of portions of the Uniform Building Code manual that relate to occupancy classification. Includes detailed requirements relating to types of construction, and the physical locations of buildings and building areas. **F, W**

Bld052 Building Code II (6119), 3 class hrs/wk, 3 cr. Continuation of Bld051. Covers hazards in building construction, such as vertical shafts, treatment of exterior and interior surfaces, detailed exit requirements, fire protection systems, public property, and weather protection. **Prerequisite:** Bld051. **W, Sp**

Bld053 Building Codes III (6126), 3 class hrs/wk, 3 cr. Continuation of Bld052. Covers pedestrian protection during construction, permanent occupancy of public property, prefabricated construction, fire extinguishing systems, fire detection systems, energy conservation, architectural barriers. **Prerequisites:** Bld051 and Bld052. **Sp**

Bld054 Dwelling Construction under the UBC (6121), 3 class hrs/wk, 3 cr. A study of the Uniform Building Code including state amendments. Covers specific code requirements relative to dwelling construction including occupancy standards, siting, footing and foundations, framing, and other materials of construction. Includes field inspection of dwellings in various stages of construction. **W**

Bld055 Building Department Administration (6430), 3 class hrs/wk, 3 cr. An introduction to Oregon law as it relates to the building code. Includes problems in administrating the code, enforcement of the law, legal remedies, and case histories. **Sp**

Bld056 Techniques of Inspection I (6420), 2 class hrs and 3 lab hrs/wk, 3 cr. Practical experience using audiovisual materials, class discussions, and field trips. Lab fee, $3. **W**

Bld057 Techniques of Inspection II (6421), 8 lab hrs/wk, 3 cr. On-the-job training, under the supervision of an instructor or inspector. Students inspect buildings under construction and hold discussions during day-long field trips. **Prerequisite:** Bld056. Lab fee, $3. **Sp**

Bld058 Zoning Enforcement and Administration (6127), 3 class hrs/wk, 3 cr. The purpose and intent of land use regulations including formulation and enforcement of zoning ordinances and regulations. Lab fee, $2. **W**

Bld059 Materials of Construction (6129), 2 class hrs and 3 lab hrs/wk, 3 cr. Materials and processes regulated by the building code. Testing standards as a quality control of traditional and non-traditional building materials. Lab fee, $3. **W**

Bld060 Fire Protection for Buildings (6114), 3 class hrs/wk, 3 cr. Installation, functions and requirements of sprinkler systems. **W**

Bld061 Structural Inspection-Wood (6426), 2 class hrs and 3 lab hrs/wk, 3 cr. Introduction to building inspection of wood structures. Covers simple wood framing, requirements of the Uniform Building Code, alternate materials, methods of construction and design, and wood frame design such as beams and shear diaphragms. **Prerequisite:** Bld054 or consent of instructor. Lab fee, $3. **F**

Bld062 Structural Inspection/Masonry (6415), 2 class hrs and 4 lab hrs/wk, 3 cr. Specific code requirements for all types of masonry construction, both structural and non-structural. Includes an introduction to fireplace construction. Lab fee, $3. **W**

Bld063 Structural Inspection-Concrete (6424), 2 class hrs and 4 lab hrs/wk, 3 cr. Concrete as a construction material, as identified by the building code. Covers physical properties including mix design, handling, storage, delivery, proper placement, and fire-resistive qualities. **Prerequisite:** Bld051 or approval of instructor. Lab fee, $4. F

Bld064 Structural Inspection-Steel (6422), 2 class hrs and 3 lab hrs/wk, 3 cr. Steel as a construction material, and its identity as a construction type in light, medium, and heavy steel frame construction; methods of connections; fire resistive qualities; manufacturing and fabrication processes. **Prerequisite:** Bld051 or consent of instructor. Lab fee, $3. W

Bld065 Building Materials (6281), 2 class hrs and 3 lab hrs/wk, 3 cr. Wood as construction material. Covers grading rules; basic structural criteria; building materials other than wood; residential housing, and some aspects of building codes, lumber retail, and prices. **Prerequisite:** Basic skills in reading, mathematics, and science and an interest in the subject. F

Bld066 Structural Plan Review (6409), 2 class hrs and 3 lab hrs/wk, 3 cr. Structural requirements of construction for building inspectors. **Prerequisite:** Math052 or equivalent and Bld068. W

Bld067 Non-structural Plan Review (6410), 1 class hr and 4 lab hrs/wk, 3 cr. How to check and examine plans (except structural) and be able to recognize necessary corrections and additions to fulfill code requirements. **Prerequisite:** Bld051 and Bld052. Sp

Bld068 Engineering for the Building Inspector (6411), 2 class hrs and 3 lab hrs/wk, 3 cr. Review of structural plans as they relate to code requirements, including plumbing and mechanical codes correlation. Studies seismic and wind loading problems. **Prerequisite:** Bld067. Sp

Bld071 Plumbing Code and Inspection I (6405), 3 class hrs/wk, 3 cr. Plumbing code requirements related to drain, waste, and ventilation systems, water and gas supply systems, sizing systems, fitting, and fixture requirements. W

Bld081 Mechanical Code Inspection I (6120), 3 class hrs/wk, 3 cr. An introduction to the state building code and building inspection certification requirements. Based on the needs of inspectors, contractors, and suppliers. F, W

Bld091 Electrical Code and Inspection I (6425), 3 class hrs/wk, 3 cr. Various wiring methods and basic installation standards. How to recognize numerous hazards in new construction as well as in existing construction, and safety procedures for all phases of construction. Sp

Bld280 Cooperative Work Experience, see Agr280.

Business Administration

BA051 Accounting Procedures I (6923), 4 class hrs/wk, 4 cr. Business accounting, including basic procedures using the double-entry system and accounting cycles for service and merchandising businesses. For students who do not plan to attend a four-year college and/or who are not enrolled in Chemeketa's two-year accounting curriculum. **Prerequisite:** Math061. W, Sp

BA052 Accounting Procedures II (6924), 4 class hrs/wk, 4 cr. Double-entry accounting procedures used by merchandising businesses including bank accounts, petty cash, payroll, and voucher systems. Students work through a practice set for a retail business. For students who do not plan to transfer to a four-year college and/or who are not enrolled in Chemeketa's accounting curriculum. **Prerequisite:** BA051 and Math061 or consent of instructor. W, Sp

BA053 Accounting Procedures III (6925), 4 class hrs/wk, 4 cr. Accounting for partnerships, corporations, capital stock, corporate earning, corporate bonds, investments, intangible long-lived assets, and annual reports, manufacturing business, and cost accounting. For students who do not plan to attend a four-year college and/or who are not enrolled in Chemeketa's accounting curriculum. **Prerequisite:** BA052 and Math062 or equivalent. Sp

BA054 Governmental Accounting (2559), 3 class hrs/wk, 3 cr. Comprehensive study of accounting for governmental and non-profit entities. Considers budgets, accounting for general funds, special revenue funds, revenue accounting, expenditure accounting, capital projects funds, debt service funds, special assessment funds, enterprise funds, general fixed asset group of accounts, and summary of funds and groups. **Prerequisite:** BA212. Sp

BA056 Intermediate Financial Accounting I (2551), 4 class hrs/wk, 4 cr. Comprehensive study of environment and development of accounting principles, basic theories, accounting processes, statements of income and retained earnings, statements of financial positions, present values, monetary assets, valuations of inventories, and current liabilities. **Prerequisite:** BA213 or concurrent enrollment in BA213. F

BA057 Intermediate Financial Accounting II (2552), 4 class hrs/wk, 4 cr. Comprehensive study of plant assets, depreciation, depletion, intangible assets, long-term liabilities, stockholders equity, earnings per share, and long-term investments. **Prerequisite:** BA056. W

BA058 Intermediate Financial Accounting III (2553), 4 class hrs/wk, 4 cr. Comprehensive study of revenue recognition, accounting changes, error analysis, income taxes, pension plans, leases, statement of changes in financial position, financial statement analysis, full disclosure, and price level adjusted financial statements. **Prerequisite:** BA057. Sp

BA059 Auditing (2555), 3 class hrs/wk, 3 cr. A survey of the responsibilities and duties of an independent, external auditor. How to apply the ten auditing standards, assist a CPA making financial audit, use audit work papers, and become aware of critical auditing decisions. Emphasizes the importance of internal control and collection of sufficient evidence. Includes an examination and preparation of audit reports issues by CPAs. **Prerequisite:** BA057. Sp

BA070 Merchandising (2105), 3 class hrs and 2 lab hrs/wk, 4 cr. Application of principles to merchandise display problems of space utilization, improvisations, seasonal display, lighting, and organization of merchandise on display. Expands on merchandising concepts and practices covered in introductory courses of retailing and marketing. **Prerequisite:** BA223. Sp

BA074 Public Relations in Business (2429), 3 class hrs/wk, 3 cr. Basic theories and principles of public relations. How to develop or implement public relations activities and become more aware of all-encompassing public relations activities in business. Sp

BA081 Records Career Survey (2801), 1 class hr/wk, 1 cr. A survey of records management career possibilities; insight into the responsibilities of record management personnel. Features guest speakers, field trips, and student research. F

BA083 AMA Computer Basics for Management, 2.5 class hrs/wk, 1 cr. A comprehensive understanding of the uses and workings of the computer presented in non-technical language. Focuses on information needed to establish a working relationship with a company's electronic data processing experts. **Offered as needed.**

BA091 Time Management Seminar: Management Skills for Bankers (9524), 3 class hrs/wk, 1 cr. Identifies and examines key techniques, strategies and principles for time management. How to pinpoint key strengths and weaknesses and initiate corrective action if indicated. **Prerequisite:** Current employment in bank management, previous banking experience or training or consent of instructor. **Offered as needed.**

BA096 Work Analysis/Simplification (9512), 3 class hrs/wk, 3 cr. Concepts and techniques of work simplification for employees. How to increase productivity through improved use of time and available resources. F, W, Sp

BA097 Supervisory Communication (9025), 1 class hr/wk, 1 cr. How supervisors may work together to develop awareness skills so they may communicate responsibly and appropriately with each other and their staff members. **Offered as needed.**

BA098 Basic Budget Workshop (9381), 12 class hrs/wk, 1 wk, 1 cr. A general survey of the budgeting process and its impact on operations. Includes steps involved in developing a budget. W, Sp

BA101 Business Environment, 4 class hrs/wk, 4 cr. An introduction to the inter-relationships of business, government, and society; roles of members of the business community; ethics and social responsibility; employment opportunities in various business fields. F, W, Sp, Su

BA199A Marketing Process, 3 class hrs/wk, 3 cr. How to communicate and sell ideas to people in a variety of selling situations. Emphasizes technique and mechanics. **Prerequisite:** BA223 or some experience in management of public relations. F

BA200 Perspectives in Business Methodology, 3 class hrs/wk, 3 cr. Special issues and current trends in business and management presented by visiting instructors and/or regular faculty. F, W, Sp, Su

BA200K Conflict Resolution at Work, 1 class hr/wk, 1 cr. Office conflict can be an obstacle to achieving work goals or developing productive work relationships. A workshop on skills and methods which lead to conflict resolution. **Offered as needed.**

BA205 Human Relations in Business, 3 class hrs/wk, 3 cr. A personalized approach to general psychology, especially adapted to a working person's needs and interests. By choosing

goals for improvement, students may gain better understanding of others and improve interpersonal relationships on the job. **Offered as needed.**

BA206 Business Management Principles, 3 class hrs/wk, 3 cr. Analyzes and synthesizes historical and current theories in leadership, group processes, organizational structures, personnel policies, motivation, and training that allow an individual to plan, organize, control, staff, and direct subordinates in an organization. **F, W, Sp, Su**

BA207 Collective Bargaining and Labor Arbitration, 3 class hrs/wk, 3 cr. An introduction to the history of collective bargaining in the United States. Covers labor agreements, management rights, conditions of employment, contract negotiation procedures, resolution of impasses, grievances, and arbitration. **Offered as needed.**

BA211 Financial Accounting I, 4 class hrs/wk, 4 cr. Studies specialized fields of accounting, including recording business transactions, the accounting equation, accounts and their uses, journals and their uses, posting to ledger accounts, trial balances, adjusting entries, use of worksheets, financial statement preparation, closing entries, post-closing trial balances, classification and valuation of accounts, cash and marketable securities, receivables and credit losses, notes and interest, inventories and valuation methods, long-term investments, plant and equipment-depreciation methods, and disposal of plant assets. **Prerequisite:** Math061 or consent of instructor. **F, W, Sp**

BA212 Financial Accounting II, 4 class hrs/wk, 4 cr. Current liabilities, payroll, corporate organization and operation, corporate stock transactions, corporate retained earnings. Covers long-term liabilities and investments, accounting principles, partnerships, price-level changes, analysis and interpretation of financial statements, funds flows, and statement of changes in financial positions. **Prerequisite:** BA211. **F, W, Sp, Su**

BA213 Managerial Accounting, 4 class hrs/wk, 4 cr. The accountant's role in an organization, cost terms and purposes, cost-volume-profit relationships, budgeting, systems design, standard costs, flexible budgets, and overhead control. Standard absorption costing, income effects of alternative product-costing methods and relevant costs, and the contribution approach to decisions. **Prerequisite:** BA212, BA053. **F, W, Sp, Su**

BA214 Business Communications, 3 class hrs/wk, 3 cr. The purpose and effectiveness of business communications. How to analyze and write simulated business letters, memoranda, and reports. **Prerequisite:** OA084, Wr122 or the equivalent. **F, W, Sp, Su**

BA215 Cost Accounting, 3 class hrs/wk, 3 cr. Analyzes methods of detailed and specific identification of cost elements in business, emphasizing job orders, processes, and standard cost accounting systems and their related theory; principles, techniques, managerial use of cost accounting data; use of budget and performance reports, as related to cost accounting. **Prerequisite:** BA213. **F, W**

BA217 Business Machines, 1 class hr and 3 lab hrs/wk, 3 cr. Operation of electronic display and electronic printing calculators. Solving business problems with calculators. **Prerequisite:** OA061. Lab fee, $4. **F, Sp**

BA220 Income Tax Accounting (BA216), 3 class hrs/wk, 3 cr. Income tax withholding, individual income taxes, form 1040, declaration of estimated taxes, supporting schedules and forms, and special individual tax situations for individuals. **Prerequisite:** BA211 or BA051. **F, Su**

BA222 Financial Management, 3 class hrs/wk, 3 cr. Managerial finance and how financial decisions affect society at large. Discusses the tax environment, ratio analysis, financial planning and control, current asset management, and term loans and leases. **Prerequisite:** BA212 or BA052. **W, Sp**

BA223 Principles of Marketing, 3 class hrs/wk, 3 cr. Marketing research and product development, sale of products or services, feedback of consumer acceptance, and marketing planning and strategy as dictated by the consumer. Previews marketing as a foundation for advanced marketing courses. **Prerequisite:** BA101. **F, W, Sp**

BA224 Personnel Principles and Supervision (2685), 3 class hrs/wk, 3 cr. Principles and functions of a personnel department relating to supervision. Includes policy formulation, employee selection and placement, interviewing and counseling, discipline, labor-management relations, wage and salary administration, human resource development, and employee health and safety. **Prerequisite:** Second year standing. **Sp**

BA226 Business Law I, 3 class hrs/wk, 3 cr. An introduction to the nature and function of the law in society and a study of the rights and obligations of contract. **Prerequisite:** BA101. **F, W, Sp, Su**

BA227 Business Law II, 3 class hrs/wk, 3 cr. Continuation of BA226. Covers legal aspects of personal property, sales, commercial paper, and bankruptcy. **Prerequisite:** BA226. **W, Sp**

BA229 Consumer Finance, 3 class hrs/wk, 3 cr. The role of the consumer in society. Includes consumer decision-making, credit and borrowing, food shopping, clothing management, home ownership, family transportation, health care and services, social security, life insurance, annuities, estate planning, wills, trusts, and consumer protection. **F, W, Sp, Su**

BA232 Introduction to Business Statistics, 3 class hrs/wk, 3 cr. Elementary statistical techniques to aid decision making in business. Includes populations and samples, estimating, hypothesis testing, analysis of variances, indexes, and time series. **Prerequisite:** Mth095. **Sp**

BA233 Marketing Research (BA224), 3 class hrs/wk, 3 cr. Research design and the development of information gathering systems as applied to marketing. Use of secondary and primary data and the interpretation of information gathered. **Prerequisite:** One term of psycholgy or sociology. **Sp**

BA238 Salesmanship, 2 class hrs and 2 lab hrs/wk, 3 cr. Sales as an integral part of total marketing functions. How selling applies to the behavioral sciences, with special emphasis on sales, psychology, sales techniques, and the fundamental principles of sales communication. **F**

BA239 Principles of Advertising, 3 class hrs/wk, 3 cr. An examination of advertisements within each segment of media. Explores relative merits of several media. Practice in the planning and analysis of complete advertising campaigns and their coordination with other marketing strategies. **Prerequisite:** BA101. **W**

BA241 Risk and Insurance, 3 class hrs/wk, 3 cr. Concepts of risks, probability, and insurance, and the role of insurance in the management of risk. Examines underlying legal principles and common elements of most insurance contracts. Special emphasis on the role of insurance from consumer and business viewpoints. Personal applications of major types of property and liability insurance, life and health insurance, with emphasis on underlying economic need each is designed to meet. **F, Sp**

BA242 Investments (2230), 3 class hrs/wk, 3 cr. How investors may consolidate and coordinate previous experiences with basic information and data in order to survive in the marketplace. Explains how insurance companies view investments and insurance as part of an investor's portfolio. **Prerequisite:** BA101, BA211 or equivalent. **Offered as needed.**

BA243 Introduction to Consumer Behavior, 3 class hrs/wk, 3 cr. How behavioral science concepts, theories, and research observations apply to various aspects of consumer behavior. Discusses the influences of perception, personality, attitudes, culture, family life, and social class on how and why people buy and consume products. **F, W, Sp**

BA244 Records Management (2642), 3 class hrs/wk, 3 cr. Principles of efficient control of business records including criteria for determining storage, disposition or retention. Includes guidelines for selection of equipment and supplies. Lab fee, $2. **F, Sp**

BA245 Records Administration (2828), 3 class hrs/wk, 3 cr. Studies the administration of a total records system. Covers legal requirements for records control, implications of privacy/freedom of information laws, and basic components of records management systems, design, implementation, and administration. **Prerequisite:** BA244 **Sp**

BA246 Micrographics (2826), 2 class hrs and 2 lab hrs/wk, 3 cr. The use of microfilm in the management of information flow. Analysis of effectiveness and cost of microfilm systems. Introduces micrographics terminology related to records management. **Prerequisite:** BA244. **W**

BA247 Forms Management (2820), 2 class hrs and 2 lab hrs/wk, 3 cr. How to establish and operate a forms management program; its relationship to records management. Includes how to analyze and design forms that efficiently record, transmit, and process information; develop forms specification, flow process charting procedures, responsibility and work process charting; and apply a survey approach to forms design. **F**

BA250 Small Business Management, 3 class hrs/wk, 3 cr. General functions and procedures used in the operation of a small business. Introduces basic aspects of managing a small business and planning, organizing, staffing, actuating, and controlling. **Prerequisite:** Second year standing or consent of instructor. **Sp**

BA251 Office Management, 3 class hrs/wk, 3 cr. The broad scope of responsibilities of an administrative manager. Includes centralization of office services which require planning, organizing, and controlling business services, systems, and procedures. **W**

BA252 Office Support Systems, 3 class hrs/wk, 3 cr. Acquaints non-secretarial science or office administration students with fundamentals of office administration and support systems such as word processing, office layout copy methods, office machines, and records management. **Sp**

BA260 Real Estate Principles, 3 class hrs/wk, 3 cr. The nature, importance, and character of real property, real estate business, state markets, and brokerages; taxes and assessment; contracts; and ownership. **F, W, Sp**

BA261 Land Use Economics, 3 class hrs/wk, 3 cr. Land use, taxation, valuation, planning, zoning and development with emphasis on their relationships to economic and social problems. Examines the overall real estate community and its participants. **Prerequisite:** BA260. **W**

BA262 Real Estate Practices, 3 class hrs/wk, 3 cr. A sheltered insight into the workings of real estate transactions including contracts, deeds, mortgages, and other documents and forms commonly used in the transfer of ownership of real property. Some field work involves public records and title data. **Prerequisite:** BA263 and BA264. **Sp**

BA263 Real Estate Law, 3 class hrs/wk, 3 cr. Examines the complexities of Oregon real estate law to help identify problems in dealing with clients and to recognize the need for services of a competent attorney specializing in real property. The agent's role in the agency relationship between broker and client. **Prerequisite:** BA260. **W**

BA264 Real Estate Finance, 3 class hrs/wk, 3 cr. The real estate mortgage market and how it competes with other products purchased on credit. Forces that modify the operation of the mortgage market, the availability of funds, lending policies, and methods of financing real property. **Prerequisite:** One course in real estate principles or practices. **W**

BA265 Real Estate Office Management, 3 class hrs/wk, 3 cr. Methods for establishing and operating a small real estate office. Emphasizes organizational formats, planning, office facilities, financial and non-financial records, financial reports, office personnel, office manuals, and public relations. **Prerequisite:** BA262. **Offered as needed.**

BA266 Supervision of Real Estate Sales Personnel, 3 class hrs/wk, 3 cr. Methods for supervising real estate sales personnel. Emphasizes licensing requirements, planning, selection, training and supervision of sales personnel, motivation, leadership, authority, discipline, communication, advertising, and public relations. **Prerequisite:** BA262. **Offered as needed.**

BA269 Principles of Banking, 3 class hrs/wk, 3 cr. Fundamentals of bank functions to give beginning bankers a broad (and operational) perspective necessary for career advancement. **F, W, Sp**

BA270 Money and Banking, 3 class hrs/wk, 3 cr. Basic economic principles most closely related to money and banking for present and prospective bank managers. Stresses practical application of the economics of money and banking to an individual bank. Includes structure of the commercial banking system, banks and the money supply, bank investments and loans, the federal reserve system and its policies, and the international monetary system. **W**

BA275 Bank Management (BA280), 3 class hrs/wk, 3 cr. New trends in the philosophy and practice of management and how to apply them. Provides new and experienced bankers with a working knowledge of bank management. **F**

BA277 Business Ethics, 3 class hrs/wk, 3 cr. A comparative study of ethical and economic systems designed to increase decision-making capabilites. Emphasizes issues and policy formation in varied business settings. **F, W, Su**

BA278 Law and Banking, 3 class hrs/wk, 3 cr. Basic rules of American law which underlie banking. Includes jurisprudence, the court system and civil procedure, contracts, quasi-contracts, property, torts and crimes, agencies, partnerships, and corporations. Also sales of personal property, commercial paper, bank deposits and collections, documents of title, and secured transactions. Emphasizes uniform commercial code. **Sp**

BA280 Cooperative Work Experience. See Agr280.

BA281 Installment Credit, 3 class hrs/wk, 3 cr. Techniques of installment lending. Emphasizes establishing credit, obtaining and checking information, servicing loans, and collecting amounts due. Surveys banking installment credit operation, inventory financing, special loan programs, business development, advertising, and the public relations of installment lending. **F**

BA283 Credit Administration, 3 class hrs/wk, 3 cr. Covers policy, bank credit departments, sources of credit information, financial statements analysis, credit correspondence, credit folders and other credit records, secured and unsecured loans to customers, loans to small business, installment loans, term loans, interbank loans, real estate loans, influence of the Federal Reserve System, investment of surplus funds by commercial banks, opportunities and responsibilities of bank lending officers. **Offered as needed.**

BA286 Credit Union Accounting, 3 class hrs/wk, 3 cr. Basic accounting principles and procedures used by credit unions. For all credit union employees, not just those directly involved in accounting operations. **W**

BA287 Credit Union Directorship, 3 class hrs/wk, 3 cr. The role, function, authority, and potential liability of a director of a credit union. Basic responsibilities of directors in relation to the historical development of the credit union movement, common practices, and federal and state laws. **Sp**

BA288 Credit Union Management, 3 class hrs/wk, 3 cr. Managerial and financial aspects of credit union operations under federal and state laws. Managerial accounting practice, financial analysis, and credit union structure. **F**

BA289 Credit Union Law, 3 class hrs/wk, 3 cr. Federal and state laws under which credit unions operate. Review of the Credit Union Act. **W**

BA290 Financial Counseling, 3 class hrs/wk, 3 cr. Explores the need for financial counseling, different types of counseling, and ideas for action. **Sp**

BA291 Savings and Loan Accounting, 3 class hrs/wk, 3 cr. Basic accounting principles and procedures used by savings associations. For all employees not just those directly involved in accounting operations. **F**

BA292 Savings Association Operations, 3 class hrs/wk, 3 cr. An introduction to financial and management operations of savings and loan associations. Includes the concept of money and its flow to and from associations, its movement to and from assets, liabilities and capital as measured periodically by the balance sheet, income statements, and other reports. Detailed study of savings flows, home mortgage loans, other investments, and branch operations. The effect of taxes on operations, the impact of the computer on operation and management, and increasing financial complexities of savings associations. **W**

Chemistry

Ch101 Consumer Chemistry, 3 class hrs and 2 lab hrs/wk, 4 cr. Introduction to chemical principles. Includes atomic structure; states of matter; chemical reactions; thermodynamics and energy; chemistry of life, including carbohydrates, lipids, proteins and nucleic acids; chemical processes in the ecosphere. Lab fee, $4. **F, W, Su**

Ch102 Consumer Chemistry, 3 class hrs and 2 lab hrs/wk, 4 cr. Food and food additives, poisons, drugs, plastics, fuel sources and energy alternatives, nuclear chemistry, and nuclear energy options. Lab fee, $4. **W**

Ch103 Consumer Chemistry, 3 class hrs and 2 lab hrs/wk, 4 cr. Major air and water pollutants and their effects on the environment. A close look at the pesticide dilemma and alternative methods of insect control. A look at the future. Lab fee, $4. **Sp**

Ch104, 105, 106 General Chemistry, 4 class hrs and 3 lab hrs/wk, 5 cr. A sequence for students preparing for science-related fields: structures of atoms, molecules, and ions and their interactions. Three lectures, one lecture-discussion, and one laboratory period. **Prerequisite:** Mth010 or equivalent. Lab fee, $6 per course. **Ch104: F, W; 105: W, Sp; 106: Sp, F.**

Ch110 Chemistry for Allied Health, 3 class hrs and 2 lab hrs/wk, 4 cr. An introduction to chemistry, the cell and its chemistry. For students entering the allied health field. Lab fee, $4. **F, W, Sp, Su**

Ch140 Physiological Chemistry, 3 class hrs/wk, 3 cr. Chemistry of the human body, metabolic processes, heredity, body poisons, and radiation. For students in allied health fields. **Prerequisite:** Ch110. **F, Sp, Su**

Ch204 General Chemistry, 4 class hrs and 3 lab hrs/wk, 5 cr. A professional course for students majoring in science and related profes-

sional fields. Includes atomic structure, stoichiometry, bonding, (atomic and molecular orbital theory) oxidation-reduction, chemical reactions, and gas laws. **Prerequisite:** One year of high school chemistry and Mth 095. Lab fee, $6. **F**

Ch205 General Chemistry, 4 class and 3 lab hrs/wk, 5 cr. A continuation of Ch204 with emphasis on crystal theory, changes of state, properties of solutions, thermodynamics, kinetics, chemical equilbrium, and acid-base theory. **Prerequisite:** Ch204. Lab fee, $6. **W**

Ch206 General Chemistry, 4 class hrs and 3 lab hrs/wk, 5 cr. An in-depth study of acids and bases, ionic reactions, complexions, oxidation and reduction, electro-chemistry, quantitative analysis, and nuclear reactions. **Prerequisite:** Ch205 or Ch106. Lab fee, $6. **Sp**

Ch226, 227 Organic Chemistry, 3 class hrs and 4 lab hrs/wk, 5 cr. Aliphatic, aromatic, and biologically important compounds and the structure and properties of hydrocarbons and their derivatives. This sequence, along with Ch228, meets the requirements for many science and preprofessional majors. **Prerequisites:** Ch226: Ch106 or Ch206; Ch227: Ch226. Lab fee, $8 per course. **Ch226: W; Ch227: Sp**

Ch228 Introduction to Biochemistry, 3 class hrs/wk, 3 cr. The structure, biological function, biosynthesis, and breakdown of molecules found in living cells. For students majoring in biology and biology-related disciplines and for students generally interested in biochemistry. **Prerequisite:** Ch227. **Offered as needed.**

Civil/Survey Technology

Cvl040 Introduction to Civil-Structural Engineering (6100), 3 class hrs and 9 lab hrs/wk, 1 cr. Introductory skills, knowledge, and practical experience for students with little experience in civil engineering and surveying. A 12-hour pre-entry level course. **Su**

Cvl050 Applied Mechanics (6109), 2 class hrs and 3 lab hrs/wk, 3 cr. Static forces and their effect upon rigid bodies at rest. Includes resolution of forces, equilibrium, and resultants of force system. **Prerequisite:** Second term standing, Math082 or approval of director. **W,Sp**

Cvl051 Strength of Materials I (6105), 2 class hrs and 3 lab hrs/wk, 3 cr. Stresses and strains in bodies subjected to tensile, compressive, and shearing forces, including common theory of beams. Examines distribution and magnitude of stresses in welded and riveted joints, thin wall cylinders, torsional members, and beams. Practice problems emphasize the materials studied. **Prerequisites:** Cvl050 and Math083 or equivalent taken concurrently. **F,Sp**

Cvl052 Strength of Materials II (6128), 2 class hrs and 3 lab hrs/wk, 3 cr. A study of the stresses and strains that occur in bodies subjected to tensile, compressive, and shearing forces. **Prerequisite:** Cvl051 or equivalent. **F,W**

Cvl055 Environmental Quality Control (6139), 2 class hrs and 3 lab hrs/wk, 3 cr. Major aspects of air and water pollution, their causes, the harmful effects to the environment, and methods of prevention and treatment. Includes water storage, treatment, and distribution. Lab fee, $3. **Sp**

Cvl056 Sanitary Engineering (6140), 2 class hrs and 3 lab hrs/wk, 3 cr. A study of domestic and industrial water supply and waste disposal, collection, storage, and treatment facilities. Lab fee, $3. **Sp**

Cvl057 Soil Mechanics(6124), 2 class hrs and 3 lab hrs/wk, 3 cr. Properties of soils including soil index properties, strength, compaction, permeability, and lateral pressures. Laboratory experiments cover each phase of study. **Prerequisite:** Second year standing and Math081. **F**

Cvl059 Soil Mechanics Fundamentals (6122), 2 class hrs and 3 lab hrs/wk, 3 cr. Soil classifications and how they are used in the construction field. Covers strength of soils, consolidation of soils in fills, construction site investigation, and soil reports. **Prerequisite:** Math052 or Math081 and fourth term standing or consent of instructor. **F**

Cvl060 Plane Surveying (6101), 2 class hrs and 6 lab hrs/wk, 4 cr. Fundamental concepts and methods in making surveying measurements for land surveying, mapping, construction, and civil engineering using conventional tapes, levels, rods, and compasses. Field labs provide practical applications. **Prerequisite:** Foresters: Math052 or enrolled concurrently; engineers: Math081 or enrolled concurrently. Lab fee $2. **F**

Cvl061 Plane Surveying (6103), 3 class hrs and 6 lab hrs/wk, 5 cr. A continuation of 6101. A study of distance and direction measurement, employing transits, theodolites, steel tapes, traversing, and associated office computations, areas, stadia, circular curves, and brief outline of public land surveys. **Prerequisite:** Engineers: Cvl060 and Math082; Foresters: Cvl060 and Math052. Lab fee $2. **W**

Cvl062 Surveying Computations I (6500), 1 class hr and 3 lab hrs/wk, 2 cr. More surveying problems to those studied in Cvl060 and Cvl061. **Prerequisites:** Math082 and third term standing in Civil/Survey Technology. Lab fee $3. **Sp**

Cvl063 Route Surveying (6507), 2 class hrs and 6 lab hrs/wk, 4 cr. Design and layout on the ground of horizontal and vertical control boundaries and routes. **Prerequisites:** Cvl060 and math through trigonometry. Lab fee $3. **Sp**

Cvl064 Surveying Computations II (6501), 1 class hr and 3 lab hrs/wk, 2 cr. Advanced computations of survey problems. **Prerequisites:** Fourth term standing and Cvl062, or consent of instructor. Lab fee, $2. **F**

Cvl065 Survey Law(6132), 3 class hrs/wk, 3 cr. Obligations, liabilities, and legal responsibilities of land surveyors, and basic principles of land survey law as evolved in the courts. **F**

Cvl067 Public Land Survey (6134), 3 class hrs/wk, 3 cr. Laws and procedures for surveying and subdividing of public lands of the United States, and for relocation of lost boundaries. Fundamental knowledge for land surveyors. **Prerequisites:** Drf085, Cvl060, and Cvl061. **W**

Cvl070 Timber and Steel Construction (6125), 3 class hrs and 3 lab hrs/wk, 4 cr. Steel and wood fasteners and connections, timber beams, and columns. Analyzes structural members for design features. Includes field trips to see applications. **Prerequisite:** Bld081. **W**

Cvl072 Concrete Construction and Design (6123), 2 class hrs and 3 lab hrs/wk, 3 cr. Theory and design of reinforced concrete structural members and design and control of concrete mixtures. Includes construction inspection and field and laboratory testing procedures. **Prerequisite:** Sixth term standing or approval of technology department director. Lab fee, $2. **Sp**

Cvl075 Hydraulics (6113), 3 class hrs and 2 lab hrs/wk, 4 cr. Static and dynamic hydraulics and how to solve problems associated with them. Experiments allow students to visualize reaction of water as a force. **Prerequisite:** Math083 and Cvl050. **W**

Cvl077 Construction Estimating (6110), 2 class hrs and 3 lab hrs/wk, 3 cr. Estimating amounts and costs of materials and labor costs of various types of construction. **Prerequisite:** Second year standing or approval of trades department director. **W**

Cvl079 Contracts and Specifications (6118), 3 class hrs/wk, 3 cr. Common usage and practices in the preparation of contracts and attendant specifications. Examines existing contracts for current jobs. Practical problems apply to theories. **Prerequisite:** Second year standing or approval of trades department director. **F**

Cvl099 Engineering Technician Orientation (6136), 1 class hr and 2 lab hrs/wk, 2 cr. How to operate an engineering calculator. (Calculators are evaluated for three weeks before the students must have one.) Includes a brief history of the engineering field and a study of the many details of the engineering curriculum. **Prerequisite:** Working knowledge of Hewlett-Packard model 33C or similar model of other manufacturers. **F, W, Sp**

Cvl280 Cooperative Work Experience, see Agr280.

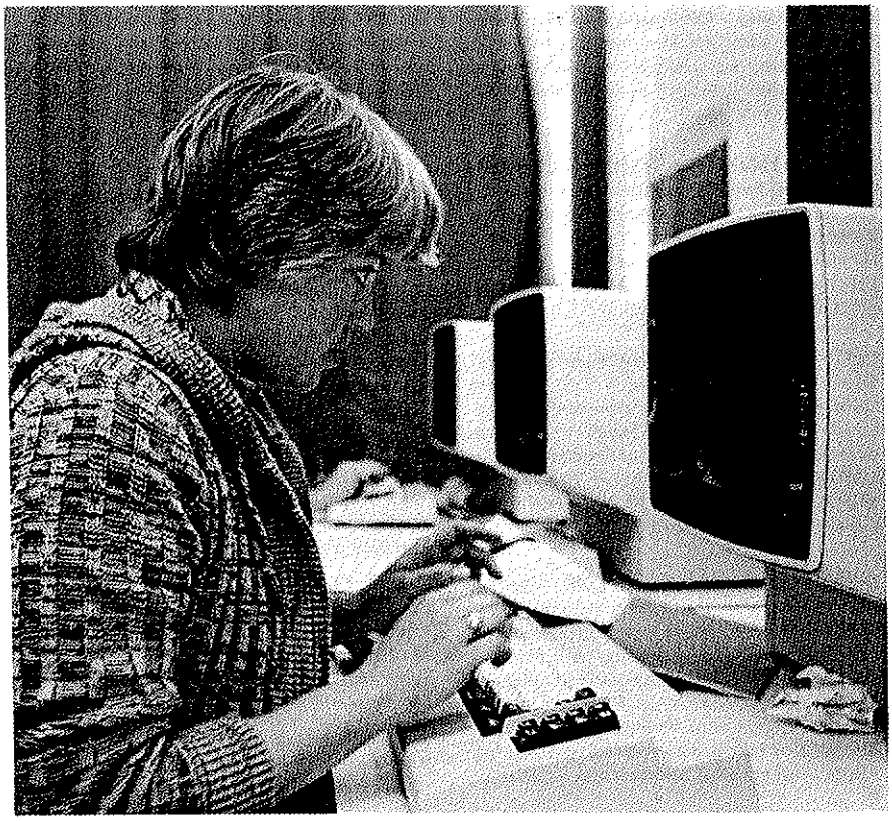
Clothing/Textiles, see also Home Economics

CT210 Clothing Construction, 8 lab hrs/wk, 3 cr. Applies principles and techniques of construction to individual projects. **F**

CT211 Clothing and Man, 3 class hrs/wk, 3 cr. Sociological, psychological, economic, and aesthetic factors affecting the selection of clothing. **W**

CT212 Clothing Construction II, 6 lab hrs/wk, 3 cr. How to create clothes from fit to finish. Includes altering and adapting patterns, creating a basic fitting garment, sewing new fabrics, tailoring, fabric care. **Offered as needed.**

CT250 Textiles, 3 class hrs/wk, 3 cr. Properties, identification, selection, use, and care of textile fibers and fabrics. **Sp**



Communication Skills, see also Reading, Writing

Com051 Communication Skills I (1101), 3 class hrs/wk, 3 cr. How to improve communicative skills through reading, listening, writing, and speaking, with emphasis on research and writing. Covers problems in reading, notetaking, gathering information, report writing, and conventional usages of mechanics and grammar. **F, W, Sp**

Com052 Communication Skills II (1104), 3 class hrs/wk, 3 cr. A continuation of Com051. Practical applications for developing effective habits of communication through speaking, participating in conferences, presenting reports, gathering information, listening, observing, and evaluating sources. **W, Sp**

Com053 Technical Report Writing (1106), 3 class hrs/wk, 3 cr. Why reports are written, types of reports, makeup, effectiveness of writing styles, fact gathering, planning documentation, methods of writing, layout, typing, and visual aids. **Prerequisite:** Com051 or consent of instructor. **W, Sp**

Computer Science

CS050 Computer Center Operations (6950), 3 class hrs and 8 lab hrs/wk, 5 cr. Study of computer center operations, while providing computer services. Comprehensive instruction and work experience as data center supervisors, console operators, librarians, peripheral equipment operators, schedulers-dispatchers, and control clerks. Covers technical duties, skills, and responsibilities for each job as they relate to the operation and maintenance of a data center use of an IBM 4331 computer. **F**

CS051 Computer Center Operations II (6951), 3 class hrs/wk, 3 cr. An intermediate course in the operation of a computer center using the IBM 4331 computing system. Introduces operator commands, computer center standards and procedures, recovery procedures, scheduling considerations, and physical organization of disks and tapes. Taken concurrently with either CS060 or CS058. **Prerequisite:** CS050 and BA131. **W**

CS052 Computer Center Operations III (6952), 3 class hrs/wk, 3 cr. Continuation of CS051. **Sp**

CS055 Keypunch I (6979), 1 class hr and 4 lab hrs/wk, 3 cr. Keypunch machine operation. Includes preparation and use of drum cards and extensive keypunch practice. **Prerequisite:** OA121A, B, C. Lab fee, $4. **F, W, Sp**

CS056 Keypunch II (CS055), 1 class hr and 4 lab hrs/wk, 3 cr. Continuation of CS055 with emphasis on speed building and accuracy. **Prerequisite:** CS055. Lab fee, $4. **F, W, Sp**

CS058 Computer Center II (6991), 9 lab hrs/wk, 3 cr. Laboratory course taken concurrently with CS051. Experience in the college computer center using an IBM 4331 computing system. **Prerequisite:** CS050. **W**

CS059 Computer Center III (6992), 9 lab hrs/wk, 3 cr. Laboratory course taken concurrently with CS052. Experience in the college computer center using an IBM 4331 computing system. **Prerequisite:** CS051, CS060 (or CS058) and CS053. **Sp**

CS060 Computer Center IIA (6993), 18 lab hrs/wk, 6 cr. See CS058. **W**

CS061 Computer Center IIIA (6994), 18 lab hrs/wk, 6 cr. See CS059. **Sp**

CS062 RPG for Operators (2679), 3 class hrs and 3 lab hrs/wk, 4 cr. Basic features of RPG II language. Students write several RPG programs that print various reports and build and update a sequential disk file. **Prerequisite:** BA131. **Offered as needed.**

CS065 Selecting Data Processing Systems (9752), 3 class hrs/wk, 3 cr. Application of system design techniques needed to define hardware and software requirements of a small business computer system and a survey of some available systems. Emphasizes cost justification of any system. **F, W, Sp**

CS066 Computer Applications Using BASIC (6930), 3 class hrs and 2 lab hrs/wk, 4 cr. How to load and access typical diskette files on small office computers. How to prepare reports, letters, and financial documents from computer files. **Prerequisite:** Mth133B or equivalent. **F, W**

CS067 BASIC for Programmers (6935), 3 class hrs and 3 lab hrs/wk, 4 cr. Features and instructions of BASIC language. How to write computer programs using BASIC that print reports and build and maintain files. Students develop reports and file contents. **Prerequisite:** CS072 (or concurrently) and CS231 or CS213 or equivalent. **F, W**

CS070 Fundamentals of Computer Programming I (6948), 4 class hrs/wk, 4 cr. Beginning course in basic programming concepts using COBOL programming language. Techniques and use of flow charts to solve business problems. **F**

CS071 Fundamentals of Computer Programming II (6948), 4 class hrs/wk, 4 cr. Continuation of CS070. Mathematics applied to data processing. Numbering systems which emphasize binary, hexadecimal, set theory, flow charts; logic problems involving single, double, and triple tables; table searching, random and sequential file manipulation. **Prerequisite:** CS070, two years of high school algebra. **W, Sp**

CS072 Systems Analysis I (6944), 3 class hrs/wk, 3 cr. Basic administrative procedures. Principles of organizing, planning, and administering procedure programs. Methods of carrying out individual systems and procedure studies. **Sp**

CS073 Systems Analysis II (6945), 3 class hrs/wk, 3 cr. Fundamentals of automated data systems and procedures. Techniques and principles of systems analysis, forms design and control, systems economics, feasibility studies, and installation of electronic data processing systems. **F**

CS075 Concepts and Facilities (6971), 3 class hrs/wk, 3 cr. Concepts and facilities of the IBM OS/VS1 operating system. Introduces IBM OS job control language. Exercises on the IBM 4331. **Sp**

CS076 Data Communications (6976), 2 class hrs/wk, 2 cr. Concepts of data communication and real time data collection. Includes systems as related to programming and operations management. **W**

CS080 COBOL II (6963), 3 class hrs and 6 lab hrs/wk, 5 cr. Intermediate course in ANS COBOL. Codes and documents business-oriented programs emphasizing table processing and indexing, sort features, subprograms, segmentation, and sequential and indexed

sequential files. **Prerequisite:** CS231, CS071, and CS215. Lab fee, $4. **Sp**

CS081 COBOL III (6964), 3 class hrs and 6 lab hrs/wk, 5 cr. Coding and documentation of programs in a portion of an integrated business system. How to write programs efficiently and maintain them easily by using CICS and VSAM files. **Prerequisites:** CS073 and CS080. Lab fee, $4. **W**

CS082 Assembler I (6969), 3 class hrs and 6 lab hrs/wk, 5 cr. An introduction to assembler language. Simple programs are coded using standard and decimal instruction sets and linked to precoded I-0 routines. Lab fee, $4. **Sp**

CS083 Assembler II (6970), 3 class hrs and 6 lab hrs/wk, 5 cr. A programming option for students interested in becoming systems programmers. Subprogram modules and macros are written, linked and tested. **Prerequisite:** CS082. **W**

CS085 RPG for Programmers (6988), 3 class hrs and 3 lab hrs/wk, 4 cr. RPG II language. Students write computer programs, using RPG II that print reports, and build and maintain files. **Prerequisites:** CS131 and at least one term of some other programming language course or consent of instructor. Lab fee, $4. **Sp**

CS101 Computer Environment (6920), 3 class hrs/wk, 3 cr. Computer systems and how they affect our lives. Includes brief introduction to BASIC language. **F, W, Sp, Su**

CS131 Introduction to Data Processing (BA131), 3 class hrs/wk, 3 cr. The concepts, elements, and structure of business data processing systems. Includes classifying, calculating and reporting functions, programming, BASIC, and computer fundamentals. Lab fee, $5. **F, W, Sp, Su**

CS211 Introduction to Computer Science, 3 class hrs and 2 lab hrs/wk, 4 cr. How to write computer programs in PASCAL language and the impact of computers on today's society. CS211 and CS212 are preparatory courses for college transfer students planning to continue in upper division courses in computer science. **Prerequisite:** Mth095 or Math082. Lab fee, $2. **W, Sp**

CS212 Techniques for Computer Programming, 3 class hrs and 1 lab hr/wk, 4 cr. A continuation of CS211. Emphasizes systems analysis and top-down programming in PASCAL language. **Prerequisite:** CS211 or equivalent experience with PASCAL language. Lab fee, $2. **Sp**

CS213 FORTRAN IV, 4 class hrs/wk, 4 cr. An introduction to language structure, manipulation of arrays, input/output formats, coding techniques, function, subroutines, disk files and memory dump debugging. Program assignments involve simple management and science problems **Prerequisite:** CS131 or CS211 or equivalent. **F, W, Sp**

CS215 Computer Hardware and Software Concepts (6958), 4 class hrs/wk, 4 cr. Hardware and software components of modern computer systems and introduction to job control language and utilities. **W**

CS219 Computer Augmented Accounting, 3 class hrs/wk, 3 cr. A basic course in the development of computer data processing as applied to accounting cycles. **Prerequisite:** BA212. **W, Sp**

CS231 COBOL I (BA231), 3 class hrs and 3 lab hrs/wk, 4 cr. An introduction to ANS COBOL programming. Coding, debugging, and documenting simple business-oriented programs. Emphasizes language structure and problem solving by applying top-down structured programming techniques. **Prerequisites:** CS070, CS131. **W**

CS280 Cooperative Work Experience, see Agr280.

Credit for Prior Learning

CPL120 Prior Learning Resume, 3 class hrs/wk, 3 cr. How to obtain credit hours for prior learning. Focuses on identifying career and educational goals, defining college level learning, identifying, documenting and describing prior learning, writing competency statements, and preparing a resume for credit evaluation. **F, W, Sp**

Criminal Justice

CJ100 Survey of the Criminal Justice System, 3 class hrs/wk, 3 cr. A review of court systems and procedures from criminal violation to final disposition. Covers six primary functional areas of administration of justice and reviews principles of federal, state, criminal, and civil laws as they apply to and affect law enforcement. **F, W, Sp**

CJ101 Criminology, 3 class hrs/wk, 3 cr. Facts on control of crime related to sociological and psychological theories of punishment and treatment. A study of imprisonment, probation, parole, etc., as society's reactions to crime. Examines operations of police departments, court probations, parole departments. **F, W, Sp**

CJ110 Introduction to Law Enforcement, 3 class hrs/wk, 3 cr. An orientation in law enforcement, history, and philosophy of enforcement of criminal laws, administration of justice, etiology of criminal behavior, correctional treatment, and professional career opportunities. **F, W, Sp**

CJ112 Traffic and Patrol, 3 class hrs/wk, 3 cr. Routine and emergency police patrol of public education, enforcement, and engineering. Preparation for effective handling of major divisions of police departments. **F, W, Sp**

CJ121 Oregon Criminal Code, 3 class hrs/wk, 3 cr. Comprehensive coverage of Oregon criminal code sections as they relate to offenses against persons, habitation and occupancy, property, morality and decency, public order and sovereignty, and the administration of governmental functions. **F, W, Sp**

CJ131 Introduction to Penology, 3 class hrs/wk, 3 cr. The current role of imprisonment as a correctional tool and a survey of some of the more significant activities involved in the treatment of prisoners. **F**

CJ132 Introduction to Parole and Probation, 3 class hrs/wk, 3 cr. Basic principles and techniques involved in correctional programs of probation and parole and a critical analysis of their individual roles in the administration of criminal justice. **Sp**

CJ140 Introduction to Criminalistics, 3 class hrs and 4 lab hrs/wk, 5 cr. Basic principles and techniques of criminalistics and definitions and distinctions between criminal investigation and criminalistics. Criminalistics laboratory must be taken concurrently. **Prerequisites:** CJ223 and CJ210 or consent of instructor. Lab fee, $5. **F, W, Sp**

CJ141 Criminalistics II, 3 class hrs and 4 lab hrs/wk, 5 cr. In-depth inquiry into criminalistics. Emphasizes legal medicine, toxicology, firearms identification, questioned document analysis, and the correlation and synthesis of different methods of approach to criminalistics problems. **Prerequisites:** CJ223, CJ210, and CJ140 or consent of instructor. Lab fee, $5. **Offered as needed.**

CJ195 Independent Study in Criminal Justice, variable hrs and cr. Independent research projects and written and oral reports in the criminal justice field. **Prerequisite:** Consent of an instructor to act as a project sponsor. **Offered as needed.**

CJ199 Issues in Criminal Justice, 3 class hrs/wk, 3 cr. Forum on special issues in criminal justice by visiting instructors or college faculty. **Prerequisite:** Consent of instructor. **Offered as needed.**

CJ200 Introduction to Community Relations, 3 class hrs/wk, 3 cr. The role of police in a changing community. Explores racial and community tension and minority group crime, social forces in a community, and factors relating to police image. **F, W, Sp**

CJ202 Violence in the Family, 3 class hrs/wk, 3 cr. Causes and extent of violence in the family and preventive measures available in the community. **Offered as needed.**

CJ204 Seminars in Criminal Justice, 3 class hrs/wk, 3 cr. For management personnel in the criminal justice system. Solutions to particular administrative problems. **Prerequisite:** Consent of instructor. **Offered as needed.**

CJ206 Crime and Delinquency, 3 class hrs/wk, 3 cr. Crime and delinquency data variations of crime and delinquency rates with age, sex, race, poverty, educational status, urbanization, and other variables. Incidence of various biological, psychological, and social traits, characteristics, and processes among criminals and delinquents. **F, W, Sp**

CJ210 Introduction to Criminal Investigation, 3 class hrs/wk, 3 cr. History and theory of fundamentals of criminal investigation from crime scene to court room. Includes scientific techniques, psychology of offenders and recent pertinent court decisions. **F, W, Sp**

CJ213 Crime Scene Technician, variable hrs and cr. A seminar in three two-hour segments. Includes comprehensive theory and practice in crime scene photography, sketching, collecting and identifying physical evidence, laboratory processing of physical evidence, preparing evidence for courtroom presentation, and presenting a case in a mock trial. **Prerequisite:** CJ210 and CJ140 or consent of instructor. Segments must be taken in sequence unless prior consent of instructor is obtained. **F, W, Sp**

CJ215 Criminal Justice Administration, 3 class hrs/wk, 3 cr. A survey of administrative practices of criminal justice agencies. Public administration of criminal justice including organizational theory, management, and policy making. Special emphasis on agencies in law enforcement and correction. **F, W, Sp**

CJ216 Criminal Justice Personnel Management, 3 class hrs/wk, 3 cr. Principles of evaluating, testing, and selecting personnel plus supervision and advancement evaluations. Study and practice of general and specific testing and evaluating procedures. **Offered as needed.**

CJ220 Introduction to Substantive Law, 3 class hrs/wk, 3 cr. Origin and structure of common-law crimes and procedures and statutory crimes. Definitions and distinctions between criminal and civil law, criminal court procedures, criminal law case reading, federal and state law, and Oregon criminal code sections. **F, W, Sp**

CJ221 Criminal Law II, 3 class hrs/wk, 3 cr. A continuation of CJ220. Administration of governmental functions, concepts of imputability, causation, and intent. **Sp**

CJ223 Rules of Evidence, 3 class hrs/wk, 3 cr. Basic principles of the law of criminal evidence. Emphasizes the role of investigators in collecting, preserving, and introducing evidence in court. Discussion of current decisions as they affect rules of evidence. **F, W, Sp**

CJ227 Introduction to Constitutional Law, 3 class hrs/wk, 3 cr. An intensive study and analysis of the U.S. Constitution, and court decisions which determine the admissibility of evidence in criminal cases and which affect the role of law enforcement in police procedures. Criminal procedures processes. **F, W, Sp**

CJ228 Moot Court, 2 class hrs and 3 lab hrs/wk, 3 cr. Proper courtroom procedures emphasizing the role of the police witness. Covers proper attire for witnesses, demeanor in court, manner of response to questioning, and maintenance of unbiased and impartial attitudes. Participation in moot court sessions offers experience in court procedures. **F**

CJ230 Introduction to Juvenile Corrections, 3 class hrs/wk, 3 cr. Historical and contemporary aspects of juvenile offenders. Examines juvenile court philosophies and current treatment programs. **Sp**

CJ231 Introduction to Corrections Process, 3 class hrs/wk, 3 cr. Analyzes historical and contemporary backgrounds of adult offenders emphasizing current prevention, control, and rehabilitative programs. **Sp**

CJ232 Introduction to Corrections Casework, 3 class hrs/wk, 3 cr. Approaches to behavior modification through interviewing and counseling. Techniques in counseling and interviewing for entry-level practitioners in corrections. Traces development of positive relationships between the client and corrections personnel. **W**

CJ233 Introduction to Community Based Corrections, 3 class hrs/wk, 3 cr. Pretrial intervention, work release programs, halfway houses, juvenile offenders, roles of volunteers and para-professionals, probation, and parole. **W**

CJ244 Questioned Documents, 2 class hrs and 2 lab hrs/wk, 3 cr. Handwritten, typewritten, forged, and altered documents as they pertain to criminal justice. Presentation of document evidence in court. **Offered as needed.**

CJ254 Transportation Security, 3 class hrs/wk, 3 cr. Security in the transportation industry, including airlines, trucking lines, and railways. Deals especially with hijacking and skyjacking, the skyjacker profile and modus operandi. Stresses protective measures and investigative operations. **Sp**

CJ280 Cooperative Work Experience, see Agr280.

Dental Assisting

Den045 Dental Terminology (5406), 2 class hrs/wk, 2cr. Vocabulary terms, and names related to the practice of dentistry. **Offered as needed.**

Den050 Introductory Concepts in Dental Assisting (5411), 4 class hrs/wk, 4 cr. Personal regimen, housekeeping, terminology, materials, instruments, and equipment for dental assistants. Qualifications for dental assistants. **Prerequisite:** High School graduate or equivalent. **F**

Den051 Dental Sciences I (5415), 3 class hrs/wk, 3 cr. Sciences and methods associated with the practice of dentistry. Includes microbiology, oral pathology, sterilization, anesthesiology, recognition of vital signs, therapeutics, pharmacology, and first aid. **Prerequisite:** Den050, Bi060 or equivalent. **F**

Den052 Dental Sciences II (5416), 3 class hrs and 3 lab hrs/wk, 4 cr. Various fields of specialized dentistry recognized by the American Dental Association and the sciences associated with them. Includes diet and nutrition, oral surgery, periodontics, pedodontics, endodontics, orthodontics, and public health dentistry. Role playing in simulated clinical situations. **Prerequisite:** Den051. **W**

Den054 Dental Materials and Instrumentation (5404), 2 class hrs and 4 lab hrs/wk, 4 cr. An introduction to and demonstrations of materials and instruments used in dental offices. Includes use, identification, chemistry, and manipulation of dental materials, and use, identification, transfer, manipulation, and care of the dental instruments and equipment. Lab fee, $5. **F**

Den055 Dental Anatomy and Physiology (5405), 3 class hrs and 3 lab hrs/wk, 4 cr. Basic general and oral anatomical terminology and related physiological processes with emphasis on the mouth and associated structure. Covers the skeletal system, blood supply, innervation and musculature of various oral structures, and developmental, anatomical, and functional characteristics of human dentition. Lab fee, $5. **F**

Den059 Dental Assisting Practicum I (5403), 1 class hr and 7 lab hrs/wk, 3 cr. Includes mixing filling materials, preparing impression materials for use, and processing impressions. Chairside assisting at the Oregon Health Sciences University dental school. **Prerequisite:** Bi060, Den050, Den051, Den054, Den055. **W**

Den060 Dental Office Management (5410), 2 class hrs and 3 lab hrs/wk, 3 cr. Personal and vocational relationships, including telephone reception and business office procedures, purchases, storage and care of supplies, and maintenance of office and equipment. **Prerequisite:** Den050. **W**

Den061 Principles and Basic Application of Dental Radiology (5408), 2 class hrs and 3 lab hrs/wk, 4 cr. Practical application of principles of radiology and practice in placement of film, cone angulation, machine manipulation, and film processing to develop proficiency in taking x-rays. **Prerequisite:** Den055, Den050 or equivalent. Lab fee, $5. **W**

Den062 Applied Radiography II (5413), 1 class hr and 2 lab hrs/wk, 1 cr. A continuation of Den061. Develops further skills in producing diagnostic radiographs. Lab fee, $3. **Sp**

Den066 Expanded Functions I (5401), 1 class hr and 2 lab hrs/wk, 2 cr. Theory and practice of new procedural responsibilities delegated to dental auxiliary personnel. Includes discussion, demonstration, and practical application of polishing silver alloys on simulated models and application of topical fluoride and rubber dams on simulated and real models. **Prerequisite:** Den050 or equivalent. Lab fee, $5. **W**

Den067 Expanded Functions II (5402), 1 class hr and 3 lab hrs/wk, 2 cr. A continuation of Den066. Includes discussion, demonstration, and practical application of preventive dentistry presentations; removal of excess cement from orthodontic bands; and alginate impression taking. **Prerequisite:** Den066. Lab fee, $5. **Sp**

Den069 Dental Office Practicum II (5417), 16 lab hrs/wk, 3 cr. Practice and observation in an approved dental office. **Prerequisite:** Completion of terms 1 and 2 in dental assisting curriculum. **Sp**

Den070 Advanced Laboratory Procedures (5407), 2 class hrs and 4 lab hrs/wk, 4 cr. Principles of full and partial denture prosthesis and the use of laboratory equipment. Includes experience in investing and casting crowns and bridges and assisting in other advanced laboratory procedures. **Prerequisites:** Den059 and Den054. Lab fee, $3. **Sp**

Den079 Dental Office Practicum III (5409), 16 lab hrs/wk, 5 cr. Practice and observation in an approved dental office. **Prerequisite:** Den069. **Su**

Den080 Dental Assistant Seminar (5418), 2 class hrs/wk, 2 cr. Preparation for employment. Emphasizes professionalism, employment opportunities and dental specialty fields. **Prerequisite:** Successful completion of terms 1, 2, and 3 of dental assisting program. **Su**

Den280 Cooperative Work Experience, see Agr280.

Drafting Technology

Drf040 Introductory Drafting (4400), 3 class hrs and 9 lab hrs/wk, 1 cr. A 12-hour introductory course covering fundamentals of drafting and basic drawing techniques. Emphasizes proper use of drafting equipment and different types of drafting. **Su**

Drf050 Sketching (4118), 3 labs hrs/wk, 1 cr. Development of basic freehand technical sketching skills and techniques used in drafting and practical pictorial communication. **F, W, Sp, Su**

Drf051 Machine Drafting I (4221), 1 class hr and 7 lab hrs/wk, 4 cr. Introduction to technical drawing. Includes familiarization with

drafting equipment, freehand lettering, orthographic projections, dimensioning techniques, pictorial drawing, geometric construction, and introduction to welding drawing. Problems based on individual machine parts. **Prerequisite:** admission to Drafting Technology program or consent of instructor. Lab fee, $2. **F, W, Sp, Su**

Drf052 Machine Drafting II (4222), 1 class hr and 7 lab hrs/wk, 4 cr. A continuation of Drf051. Emphasizes lettering, line quality, and drafting techniques. Projects include auxiliary views, sectional views, and production drawings. Technical subjects include tolerancing, geometric tolerancing, and fasteners and their application in drafting. **Prerequisite:** Drf051 or consent of instructor. Lab fee, $2. **W, Sp, Su**

Drf053 Machine Drafting (4223), 1 class hr and 6 lab hrs/wk, 3 cr. A continuation of Drf052. Includes assembly and production drawings, isometric drawing, and related pictorial drawings. **Prerequisite:** Drf052 or consent of instructor. Lab fee, $2. **Sp**

Drf054 Drafting I (4101), 4 lab hrs/wk, 2 cr. Fundamentals of drafting and basic drawing techniques. Emphasizes use of drafting instruments, standard orthographic projections, layout procedures, ASA approved lettering techniques, geometric construction, selection of views, sectional auxiliary views, and standard dimensioning practices. Lab fee, $1. **F, W, Sp, Su**

Drf055 Architectural Design (4234), 8 lab hrs/wk, 3 cr. Problem solving in production of architectural design solutions to program assignments. **Prerequisites:** Drf056 and Drf057 or approval of instructor. Lab fee, $3. **F, Su**

Drf056 Architectural Drafting (4226), 8 lab hrs/wk, 3 cr. Basic architectural drafting techniques and methods. Covers architectural lettering, layout, arrangements, symbols, and conventional construction methods used in residential or light commercial buildings. **Prerequisites:** Drf051, Drf054 or consent of instructor. Lab fee, $3. **W, Sp**

Drf057 Architectural Drafting (4227), 8 lab hrs/wk, 3 cr. Basic architectural drafting techniques, symbols, and methods. Includes advance planning, detailing, design, and application of related resource materials. Working detail drawings of projects completed in Drf056. **Prerequisite:** Drf056. Lab fee, $3. **Sp,Su**

Drf059 Print Reading (4120), 4 lab hrs/wk, 1 cr. How to read, interpret, and draw construction prints, shop drawings, and as-built drawings. **Prerequisite:** Drf054 or consent of technology department director. **F**

Drt060 Advanced Print Reading (4121), 4 lab hrs/wk, 2 cr. Reading and interpreting architectural plans and specifications of complex building construction. **Prerequisite:** Drf059 or consent of instructor. **Sp**

Drf061 Technical Illustration (4228), 8 lab hrs/wk, 3 cr. Methods of pictorial drawing, exploded view drawings with pencil and ink shading, freehand and template drawings. Introduces color and rendering techniques. **Prerequisite:** Second year standing in drafting or consent of instructor. Lab fee, $3. **W, Su**

Drf062 Technical Illustration (4229), 8 lab hrs/wk, 3 cr. A continuation of Drf061. More complex pictorial presentations, exploded views, and charting methods. Use of a variety of media and techniques. **Prerequisite:** Drf061. Lab fee, $3. **Sp, Su**

Drf064 Drafting II (4105), 4 lab hrs/wk, 2 cr. A continuation of Drf054. Emphasizes basic drawing techniques. Includes isometrics, additional sectional and auxiliary views, assembly and detail drawings, fasteners, welding drawings, and developments. **Prerequisite:** Drf054. Lab fee, $1. **F, W, Sp, Su**

Drf065 Drafting Room Computation (4126), 2 lab hrs/wk, 1 cr. Computation and presentation of technical data. Emphasizes application of engineering type calculators. Studies typical mechanical, civil, tool design, and other related problems. **Prerequisite:** Math081 and Drf051 or consent of instructor. **W, Sp, Su**

Drf066 Tool Design Lab I (4231), 8 lab hrs/wk, 3 cr. Introduction to modern principles of tool design including gauging, locating, clamping, and fixture design. Covers modern high production techniques and tooling, limit dimensioning, and tolerancing. **Prerequisite:** Drf052 and Mch072 or consent of the instructor. Lab fee, $3. **W, Su**

Drf067 Tool Design Lab II (4220), 8 lab hrs/wk, 3 cr. Continuation of 4231. Includes advanced problems of jig and fixture design and detailing, application of tooling materials and components, a study of numerical control of machine tools, and selected industrial visitations. **Prerequisite:** Drf071 or consent of instructor. Lab fee, $3. **Sp**

Drf069 Piping and Flow Systems Drafting (4224), 1 class hr and 5 lab hrs/wk, 3 cr. The detailing of a variety of piping and industrial flow systems. Covers schematic diagrams and pictorial layouts, heating applications, normal pipe and flow system drawings, and the elements of flow systems design. **Prerequisite:** Drf052 or consent of instructor. Lab fee, $3. **Sp**

Drf070 CAD Pipe Systems (4106), 1 class hr and 3 lab hrs/wk, 3 cr. Detailing of a variety of piping and industrial flow systems. Covers schematic diagrams and pictorial layouts, normal pipe and flow system drawings, and elements of flow systems design. **Prerequisite:** Second term standing or consent of instructor. **Sp**

Drf071 Machine Design Lab I (4232), 8 lab hrs/wk, 3 cr. Practical design situations related to the drafting room. Selected design project(s) demonstrate a comprehensive study of parts relationships, materials application, and product design. Includes duo dimensioning (English-metric), geometric tolerancing, and welding applications. **Prerequisite:** Drf052 and Drf074 or consent of instructor. Lab fee, $3. **W**

Drf072 Machine Design Lab II (4233), 8 lab hrs/wk, 3 cr. Designing and drafting of machines which require automatic control systems. Includes geometric tolerancing, welding structure design, power transmission design, and automated control systems. Emphasizes selection of stock components from manufacturers' catalogs. **Prerequisite:** Drf071, Drf086 or consent of instructor. Lab fee, $3. **Sp**

Drf073 Computer-aided Graphics (4112), 1 class hr and 3 lab hrs/wk, 2 cr. Computer generation of multiview drawings, dimensioned drawings, schematic diagrams of menus, and structural drawings. How to use a desktop computer, plotter, graphics tablet, and store disks. **Prerequisite:** Drf051 or consent of instructor. **Sp**

Drf074 Descriptive Geometry (4115), 1 class hr and 5 lab hrs/wk, 3 cr. Graphic solution to mathematical and space relationship problems for design/drafting majors. Includes auxiliary views, point line plane problems, and revolutions. Introduces geometric solution of vectors. **Sp**

Drf075 Applied Descriptive Geometry (4116), 1 class hr and 3 lab hrs/wk, 2 cr. A continuation of Drf074 stressing specific applications. Includes vectors, plane tangencies, intersections, and pattern developments. **Prerequisite:** Drf074 or consent of instructor. **F**

Drf076 Photogrammetry I (4235), 8 lab hrs/wk, 3 cr. An introduction to mapping procedures using aerial photo interpretation skills. Includes map construction using standard methods, equipment, and symbols. **Prerequisite:** Drf081 or consent of instructor. Lab fee, $3. **W**

Drf077 Photogrammetry II (4237), 8 lab hrs/wk, 3 cr. A continuation of aerial photo interpretation methods. Develops topographic map construction skills using anaglyphic mapping equipment. **Prerequisite:** Drf076 or consent of instructor. Lab fee, $3. **Sp**

Drf079 Introduction to Specifications (4102), 1 class hr/wk, 1 cr. Development, composition, legal aspects, and writing of construction contract documents. Includes writing exercises, oral presentations, inspection of actual contract documents, and simulations. **Sp**

Drf081 Mapping and Platting (4131), 1 class hr and 7 lab hrs/wk, 3 cr. An introduction to basic components of maps, subdivisions, and plats with particular emphasis on drafting skills and techniques. **Prerequisite:** Third term standing or consent of instructor. Lab fee, $3. **Sp**

Drf082 Civil Engineering Drafting (4236), 8 lab hrs/wk, 3 cr. Introduction to typical drafting room problems of consulting engineering firms. Studies typical drawings from plan-profile sheets, construction details, piping details, and standards related to an overall set of plans. Preparation of selected civil engineering drawings, as assigned. **Prerequisite:** Second year standing or consent of instructor. Lab fee, $3. **F, W, Su**

Drf083 Project Development (4123), 8 lab hrs/wk, 3 cr. Development of plot plans, working drawings, and plotting field data. Includes laying out (staking) structures on plots of ground. **Prerequisite:** Drf054 and Drf082. **Sp**

Drf084 Land Division and Mapping (6335), 2 class hrs and 4 lab hrs/wk, 3 cr. An introduction to basic principles of map layout, methods of platting, and basic photogrammetric procedures. **Prerequisite:** Second year standing or consent of instructor. **F**

Drf085 Project Graphics (4135), 4 lab hrs/wk, 2 cr. Plot plans, working drawings, and plotting field data used in forestry and civil engineering. **Prerequisite:** Drf054 or consent of instructor. Lab fee, $2. **Sp, Su**

Drf086 Power Transmission Design (4175), 2 class hrs and 3 lab hrs/wk, 3 cr. An introduction to mechanical devices used in industrial material handling systems. Includes study of drivers: hydraulic, pneumatic, electric; and power transmission equipment: chain, sprockets, V belts, bearings, speed reducers. Emphasizes analyses of system requirements, sizing of machine elements, and selection of components from industrial catalogs. **Prerequisite:** Second year standing in Mechanical Design option in Drafting Technology program or consent of instructor. W

Drf087 Industrial Control Systems Design Lab (4178), 8 lab hrs/wk, 3 cr. Introduction to the use and design of industrial control circuits. Designs of hydraulic, pneumatic, and electronic circuits to control direction, speed, and sequence of operations. Covers logic diagrams, truth tables, ladder diagrams, and valve symbols. **Prerequisite:** Drf086 or consent of instructor. Lab fee, $3. Sp

Drf089 Structural Drafting (4111), 8 lab hrs/wk, 3 cr. Use of structural design data for production of structural working drawings. Includes drafting and coordinating plans and details for a specific structure. Emphasizes layouts, procedures, and terms standard to the construction industry. **Prerequisite:** Second year standing in drafting or consent of instructor. Lab fee, $3. F

Drf090 Electronic Drafting (4100), 8 lab hrs/wk, 3 cr. Electrical drafting for drafting majors. Includes schematic and wiring diagrams, block and flow diagrams, PC board layout, charts, and graphs. **Prerequisite:** Second year standing in drafting or consent of instructor. Lab fee, $3. F

Drf091 Basic Drafting for Electronics (4124), 4 lab hrs/wk, 2 cr. Basic drafting techniques and standards. Includes use of materials and equipment, freehand lettering, orthographic projection, dimensioning practices, and graphic and symbolic drafting language. Stresses line work, lettering, and appearance of finished drawings. Lab fee, $1. F, W

Drf096 Architectural Drafting I (4324), 3 lab hrs/wk, 1 cr. Solving of architectural design problems to meet assigned program requirements. W

Drf097 Architectural Drafting II (4325), 3 lab hrs/wk, 1 cr. Basic architectural drafting techniques and methods. Covers architectural lettering, layout, arrangement, symbols, and conventional construction methods for residential or light commercial buildings. Sp

Drf098 Architectural Drafting III (4326), 3 lab hrs/wk, 1 cr. Development of basic architectural drafting techniques, symbols and methods, advance planning, detailing, design and applied related resource materials. **Offered as needed.**

Drf099 Introduction to Drafting (4321), 3 lab hrs/wk, 1 cr. Fundamentals of drafting. Use of drafting instruments, standard orthographic projection, layout procedures, ASA-approved lettering techniques. Geometric construction, selection of views, sectional and auxiliary views, revolutions, heads, and standard dimensioning practices. **Offered as needed.**

Drf280 Cooperative Work Experience, see Agr280.

Early Childhood Education, see also Family Living

ECE050 STEP-Systematic Training for Effective Parenting (7145), 3 class hrs/wk, 3 cr. Deals with parent-child relationships. Students share experiences of common concern, identify typical responses to family problem situations, and practice specific child-training principles and techniques. **Offered as needed.**

ECE060 Introduction to Early Childhood Education (7129), 2 class hrs and 2 lab hrs/wk, 3 cr. Historical development, basic philosophies, types of programs for children and career possibilities in early childhood education. Field trips to preschools, nursery schools, kindergartens, day care centers, Head Start, and parent cooperatives. F, W, Sp

ECE061 Development in Childhood I (7119), 3 class hrs/wk, 3 cr. Basic principles of growth and development, prenatal through age two. Emphasizes physical, intellectual, emotional, and social development. F, occasionally Sp

ECE062 Development in Childhood II (7120), 3 class hrs/wk, 3 cr. Continuation of ECE061. Basic principles of growth and development, ages three through eleven. Emphasizes physical, intellectual, emotional, and social development. **Prerequisite:** ECE061. W, occasionally F

ECE066 Observing and Recording in the Preschool (7131), 3 class hrs/wk, 3 cr. Value and use of observations as teaching tool. Emphasizes self-awareness as related to the study of children. Weekly lecture-discussions and observations at child development centers. F, occasionally Sp

ECE067 Observing and Guiding Behavior (7132), 3 class hrs/wk, 3 cr. Continuation of ECE066. Emphasizes role of teachers, guidance, classroom management techniques, and improvement and use of recording and reporting. Weekly observations at child development centers. **Prerequisite:** ECE066. W, occasionally F

ECE070 Environments for Young Children (7123), 3 class hrs/wk, 3 cr. Planning and evaluating environments for preschool children. Includes play, room arrangements, outdoor areas, equipment selection and sources, children's furniture, and "scrounging" for materials. **Prerequisite:** ECE072. F

ECE071 Creative Activities (7136), 2 class hrs and 2 lab hrs/wk, 3 cr. Various media and activities that promote creative growth in young children. Includes understanding and experiencing values of various activities, presenting them to children, and selecting and timing activities. Includes art activities and materials, puppets, finger plays, flannel boards, and nature. **Prerequisite:** ECE061, ECE062 or consent of instructor. Lab fee, $5. Sp

ECE072 Learning Experiences for Young Children (7124), 4 class hrs/wk, 4 cr. Developing, presenting, and evaluating various concepts and activities for preschool children. Includes science, creative expression, nature study, language arts (stories, books, finger plays, dramatic play), numbers, space and time, field trips and visitors, and sensory perception. **Prerequisites:** ECE061 and ECE062. Lab fee, $5. Sp

ECE074 Children's Literature (7117), 3 class hrs/wk, 3 cr. Literature for preschool children. Includes picture books, stories, poetry, and classic and current literature. Value of types of books, evaluating and choosing books, and ways to share books with young children. **Prerequisite:** Second year standing in early childhood education or consent of instructor. W

ECE075 Music for Young Children (7130), 3 class hrs/wk, 3 cr. Music and related activities for pre-school children. Includes rhythm and dance, songs and games, use of instruments, use of music for concept formation, enjoyment, and appreciation. **Prerequisite:** Second year standing in early childhood education or consent of instructor. W

ECE079 Child Nutrition (7115), 2 class hrs/wk, 2 cr. Nutrition to meet the needs of preschool children. Development of attitudes and habits toward food and planning meals and snacks. F

ECE080 Home, School, Community (7126), 3 class hrs/wk, 3 cr. Establishment and maintenance of school and community programs for parent education. Techniques and skills for developing rapport and communication with parents and families. Conferences, meetings, and community resources as tools for fostering parent-child relations. **Prerequisites:** ECE091 and second year standing in early childhood education, or consent of instructor. F

ECE084 The Exceptional Child (7125), 3 class hrs/wk, 3 cr. Understanding the characteristics and world of preschool children who deviate from average or normal levels in mental characteristics, sensory abilities, neuromuscular physical characteristics, social or emotional behavior, communication abilities, multiple handicaps, and cultural or economic differences. Includes community resources, curriculum considerations, and parent involvement. **Prerequisite:** ECE061 and ECE062 or consent of instructor. W, Sp

ECE085 Administration of Child Care Centers (7113), 3 class hrs/wk, 3 cr. Finances, budget, sources of income, standards and regulatory agencies (local, state, federal), personnel, philosophy, staffing patterns, job descriptions, interviewing, evaluation, inservice training, over-all program planning, parent/community attitudes, and relationships. **Prerequisite:** Second year standing in early childhood education or consent of instructor. W, Sp

ECE091 Supervised Field Experience I (7134), 1 class hr and 6 lab hrs/wk, 3 cr. Working with young children in organized settings and assisting with supervision of daily activities in a preschool program. **Prerequisites:** ECE061, ECE062, ECE066, and ECE067. F, W, Sp

ECE092 Supervised Field Experience II (7135), 1 class hr and 9 lab hrs/wk, 4 cr. Continuation of ECE091. Includes some planning, executing, and evaluating of curriculum materials. **Prerequisite:** ECE091. F, W, Sp

ECE096 Directed Participation I (7121), 3 class hrs and 12 lab hrs/wk, 7 cr. Supervised teaching of children in Chemeketa's child development center. **Prerequisite:** Second year standing and ECE092. F, W, Sp

ECE097 Directed Participation II (7122), 3 class hrs and 15 lab hrs/wk, 8 cr. A continuation of ECE096 with different age group. **Prerequisites:** Second year standing and ECE096. **F, W, Sp**

ECE280 Cooperative Work Experience, see Agr280.

Economics

Ec100 Outline of Economics, 3 class hrs/wk, 3 cr. A survey of macro and micro economic theories to assist students in applying basic economic concepts to their business or personal lives. **F, W, Sp, Su**

Ec201 Principles of Economics, 3 class hrs/wk, 3 cr. Basic economics and a study of macro economic theory. Covers the public sector, unemployment, inflation, taxation, national income accounting and income distribution, money, banking, fiscal and monetary policy. **F, W, Su**

Ec202 Principles of Economics, 3 class hrs/wk, 3 cr. Micro economics concepts including markets, firms' resource allocation, derived demand, income distribution, price systems, monopoly, and allocation of resources. **Prerequisite:** Ec201 or consent of instructor. **W, Sp**

Ec203 Principles of Economics, 3 class hrs/wk, 3 cr. Emphasizes economic issues such as underdeveloped countries, economic growth, pollution, and comparative economic systems. **Prerequisite:** Ec201 or consent of instructor. **Sp**

Education

Ed051 Teaching Basic Reading and Writing to Older Non-Readers (9951), 1 class hr and 2 lab hrs/wk, 2 cr. Workshop and tutoring experience in teaching basic reading and writing skills to older non-readers. Covers problems of illiterates and implications, the Laubach method of basic language skills instruction, writing simple stories using a controlled vocabulary, and conducting tutorial teaching sequences. **Offered as needed.**

Ed110 Psychology of Learning, 3 class hrs/wk, 3 cr. Teaching techniques based on modern theories of behavior, motivation, and human development. **Prerequisite:** Admission to Educational Aide program or consent of instructor. **F, W**

Ed111 Contemporary Education, 3 class hrs/wk, 3 cr. Public education in the United States today. Examines contemporary purposes and practices in relation to historical trends and philosophical issues. Discusses organization, financing, and operation of local school districts. **Prerequisite:** Admission to Educational Aide program or consent of instructor. **Sp**

Ed113 Discrimination: The Law and the Oregon Educator, 3 class hrs/wk, 3 cr. Ramifications, requirements, and impact of state and federal laws prohibiting discrimination in the educational system on the basis of sex, race, religion, handicap, national origin, marital status or age. Designed to inform the interested public and to fulfill teacher certification requirements under ORS 342.123. **Offered as needed.**

Ed123 Tutoring Practices for Paraprofessionals I, 3 class hrs/wk, 3 cr. First of two courses on basic tutoring theory and techniques in reading and the language arts. How to carry out specific prescriptions from teachers, tutor pupils individually and in small groups, assess pupils' progress, and maintain appropriate records. **W**

Ed124 Tutoring Practices for Paraprofessionals II, 3 class hrs/wk, 3 cr. A continuation of Ed123. Covers tutoring in mathematics, science, social science, art, music, and physical education. **Sp**

Ed131 Teaching Techniques, 3 class hrs/wk, 3 cr. Instructional and evaluative techniques commonly used by educational aides. **Prerequisite:** Admission to Educational Aide program or consent of instructor. **F**

Ed132 Evaluation Techniques, 3 class hrs/wk, 3 cr. An introduction to methods and tools of measurement and evaluation. **Offered as needed.**

Ed133 Instructional Media and Equipment, 3 class hrs/wk, 3 cr. Purpose and use of instructional media and equipment commonly used in schools and functions of school media centers. **F, Sp**

Ed134 The Mexican-American and the Schools, 3 class hrs/wk, 3 cr. For persons working, or planning to work, with Mexican-American students. Focuses on learning problems some students may have because of conflicts between their ethnic-based values and those of other students. **Sp**

Ed136 Instructional Media Techniques, 3 class hrs/wk, 3 cr. Techniques, methods and processes in producing instructional media materials. **W, Su**

Ed199A Spanish Language Development for the Spanish Speaker, 3 class hrs/wk, 3 cr. First of three courses to help Spanish-speaking teacher aides improve their communication skills and develop their language skills. **F**

Ed199B Spanish Reading for the Spanish Speaker, 3 class hrs/wk, 3 cr. Continuation of Ed199A to develop reading skills. **W**

Ed199C Spanish Composition for the Spanish Speaker, 3 class hrs/wk, 3 cr. Continuation of Ed199A and B and to develop composition skills. **Sp**

Ed199D Applied Behavior Modification, 3 class hrs/wk, 3 cr. Introduction and survey of behaviorism theory, and application of behavior modification techniques in working with students and institutionalized persons. **Sp**

Ed201 American Sign Language-Beginning I, 3 class hrs/wk, 3 cr. An introduction to American sign language and the culture of deaf people. Emphasizes receptive skills and some expressive skills. **Offered as needed.**

Ed202 American Sign Language-Beginning II, 3 class hrs/wk, 3 cr. A continuation of Ed201 to improve receptive and expressive skills. **Prerequisite:** Ed201. **Offered as needed.**

Ed204 American Sign Language-Beginning III, 3 class hrs/wk, 3 cr. A continuation of Ed202. Stresses increased understanding of American Sign Language and deaf culture and proficiency in receptive and expressive skills. **Prerequisite:** Ed201, Ed202. **Offered as needed.**

Ed206 American Sign Language-Intermediate I, 3 class hrs/wk, 3 cr. A continuation of Ed204. Emphasizes conversational signing through use of structured dialogues. **Prerequisites:** Ed201, Ed202, Ed204. **Offered as needed.**

Ed209A Practicum: Introduction to Observation and Experience, 3 class hrs/wk, 3 cr. The role and work of educational aides. Covers occupational opportunities, career ladders, and other training models. Examines attitudes and work habits which influence job effectiveness and satisfaction. Students gain experience in educational settings. **F, Sp**

Ed209B Practicum: Introductory Observation and Experience (LDC), 3 class hrs/wk, 3 cr. A one-term introduction to education for students exploring education as a career. **F, W, Sp**

Ed210 Education Practicum: Theory and Practice, 1 class hr and 15 lab hrs/wk, 6 cr. Field experience in a variety of classroom activities directly related to instructing and supervising children in school settings. Application of knowledge, methods, and skills gained from education courses. Seminars cover classroom experience, problem solving, techniques, and materials. **Prerequisite:** Admission to Educational Aide program or consent of instructor. **F, W, Sp**

Ed211 Advanced Practicum, 1 class hr and 15 lab hrs/wk, 6 cr. Practical experience for educational aide students in their area of specialization. **F, W, Sp**

Ed212 Practicum: Specialized Education, 1 class hr and 15 lab hrs/wk, 6 cr. Classroom experience with children of specialized populations. For second year students so they may apply knowledge, methods, and skills gained from education courses. Seminars on classroom experiences, problem solving, and special teaching techniques. **Prerequisite:** Second year standing. **F, W, Sp**

Ed213 Beginning Interpreting for the Deaf (1128), 3 class hrs/wk, 3 cr. For students using manual communication. Introduces basic theories, principles, and practices for interpreting for deaf people. An overview of the role of an interpreter. **Prerequisites:** Ed201, Ed202, Ed204 and Ed206. **Offered as needed.**

Ed251 Introduction to Special Learner Problems, 3 hrs/wk, 3 cr. Survey and study of special education. Students visit facilities and meet persons serving the handicapped as a help in making career choices in special education. **F**

Ed257 Second Language Teaching Techniques - Paraprofessionals I, 3 class hrs/wk, 3 cr. First of a three-term sequence covering philosophy, activities, materials, and various techniques used in bilingual/bicultural educational programs. **F**

Ed258 Multi-Cultural Children's Activities Literature, 3 class hrs/wk, 3 cr. A continuation of Ed257 on selecting and using multicultural activities and literature. **W**

Ed259 Bilingual Methodology, 3 class hrs/wk, 3 cr. A continuation of Ed257 and Ed258. Examines the philosophy, rationale, and legal implications of bilingual/bicultural programs and the management and use of English and Spanish reading in a bilingual classroom. **Sp**

Ed266 Orientation to Deafness (1129), 3 class hrs/wk, 3 cr. A survey of the language and culture of deaf people. Includes historical factors, philosophies of deaf education and rehabilitation, sign systems, and general background information relating to deafness. **Sp**

Ed267 Introduction to the Education of the Mentally Retarded, Physically Handicapped, and Emotionally Disturbed Student, 3 class hrs/wk, 3 cr. First in a three-term sequence covering theories and techniques of working with physically handicapped, mentally retarded, and emotionally disturbed students. Includes theories, identification processes, instructional services, assessment procedures, and rules and regulations concerning handicapped students. **F**

Ed268 Introduction to Classroom Management of the Mentally Retarded and Physically Handicapped, 3 class hrs/wk, 3 cr. A continuation of Ed267. Specific management skills and curriculum materials related to mentally retarded and physically handicapped students. **W**

Ed269 Introduction to Classroom Management of the Emotionally Disturbed, 3 class hrs/wk, 3 cr. A continuation of Ed268. Specific management skills relating to emotionally disturbed students. Focuses on learning characteristics of emotionally disturbed students and appropriate curriculum materials. **Sp**

Ed281 Introduction to Vocational/Technical Education, 3 class hrs/wk, 3 cr. A study of goals, development, organization, education practices, and futures in vocational/technical education. **Offered as needed.**

Ed292 Occupational Analysis and Curriculum Development, 3 class hrs/wk, 3 cr. A study and application of job analysis in contemporary and emerging occupations in industry, trades, and services for use in selection, organization, and evaluation of curricula in occupational education. **Offered as needed.**

Electronics

Elt040 Introductory Electronics (6400), 3 class hrs and 9 lab hrs/wk, 1 cr. Introduces skills and knowledge to students with little experience in electronics. A pre-entry level course. **Su**

Elt044 Exploratory Electronics (4262), 1 class hr/wk, 1 cr. Basic concepts, vocabulary, equipment, and manipulative skills required, and type of work performed by electronics technicians. An aid to students entering the electronics engineering technician program. **F, W, Sp**

Elt051 Electrical Theory DC (6200), 3 class hrs and 3 lab hrs/wk, 4 cr. An introduction to direct currents. Emphasizes contemporary techniques as a supplement to basic concepts. Covers principles of electron physics, unidirectional current and factors affecting its magnitude, series circuit analysis, parallel-circuit analysis, complex unidirectional-current circuits, and magnetism. **Prerequisite:** High school algebra or equivalent. Lab fee, $3. **F, W**

Elt052 Electrical Theory AC (6202), 3 class hrs and 3 lab hrs/wk, 4 cr. A continuation of Elt051. Principles of electron physics, bi-directional circuit analysis, and characteristics of inductance and capacitance. **Prerequisites:** Elt051 and concurrent trigonometry course or consent of instructor. Lab fee, $3. **W, Sp**

Elt053 Electrical Circuits (6206), 3 class hrs and 3 lab hrs/wk, 4 cr. A continuation of Elt052 emphasizing analysis of characteristics of complex wave form circuits. Covers passive filter networks, bi-directional wave forms, complex wave form analysis of simple circuits, wave form analysis of combined networks, series resonance, parallel resonance and power. **Prerequisites:** Elt052 and some trigonometry. Lab fee, $3. **F, Sp**

Elt054 Transistors (6217), 3 class hrs and 6 lab hrs/wk, 5 cr. Principles of the transistor, the basic element of the semiconductor family, and its operation as a circuit element. Principles studied in theory classes are applied in the laboratory. **Prerequisites:** Elt051 or equivalent and Elt052, which may be taken concurrently. Lab fee, $5. **W, Sp**

Elt055 Semiconductors (6237), 2 class hrs and 3 lab hrs/wk, 3 cr. A survey of operating principles of solid-state devices such as uninjunction transistor silicon-controlled rectifiers, tunnel diodes, field effect transistors, photoconductors, and their basic circuits and applications. **Prerequisite:** Elt054 or consent of department chairman. Lab fee, $3. **F, W**

Elt056 Applied Electronic Calculations I (6204), 3 class hrs and 2 lab hrs/wk, 4 cr. Calculations which apply to direct current electrical circuits. Includes methods of calculation and practical story problem solving. **Prerequisite:** Mth010 or equivalent. **Sp**

Elt057 Applied Electronic Calculations II (6205), 3 class hrs and 2 lab hrs/wk, 4 cr. A continuation of Elt056. **Prerequisite:** Elt056 or equivalent. **W, Sp**

Elt058 Introduction to Electronics (4260), 2 lab hrs/wk, 1 cr. Tools and materials used in electronics. Basic maintenance procedures and proper use of materials, identification of components and their symbols. An overview of the electronics field and its opportunities. Some homework in electronic laboratories required. Lab fee, $2. **F, W**

Elt059 Consumer Electronic Systems (6258), 2 class hrs and 6 lab hrs/wk, 4 cr. Principles, operation, and servicing of consumer products. Includes stereo receivers, tape recorders, record changers. **Prerequisites:** Elt065 and Elt069 or consent of instructor. **W**

Elt060 Analysis of Electronic Systems (6203), 3 class hrs and 3 lab hrs/wk, 4 cr. Combines individual units with a useful working system. Analyzes and interfaces individual units. Covers video, audio, and RF distribution systems. **Prerequisite:** Elt070. **Sp**

Elt061 Engineering Orientation (6194), 2 lab hrs/wk, 1 cr. Introduction to electronic engineering. Emphasizes calculations, scientific notation, formula manipulation, and use of calculators in solving electronics problems. **F, W, Sp**

Elt062 Engineering Problems (6138), 2 lab hrs/wk, 1 cr. Technical data and computations. Includes procedures and development of skills for dimensional analysis, recognition and use of unit systems, preparation and use of graphs and curves. **Prerequisite:** Elt061 or consent of instructor. **W**

Elt063 Electronic Devices I (9690), 2 class hrs/wk, 2 cr. Introduction to solid state devices and vacuum tubes. Graphs as they apply to devices. Applied theory of mathematics and slide use. Evening course. **Prerequisite:** Elt051 and Elt052. **F, W, Sp, Su**

Elt064 Wave Generation and Shaping (6234), 2 class hrs and 3 lab hrs/wk, 3 cr. An introduction to pulse techniques. Includes theory and operation of limiter and clipper circuits, multivibrator circuits, synchronization circuits, and applications of multivibrators. **Prerequisite:** Third term standing or consent of instructor. Lab fee, $3. **Sp**

Elt065 Electronic Circuit Concepts (6212), 2 class hrs and 6 lab hrs/wk, 4 cr. Basic circuits and components of electronics emphasizing designing and proving of design concepts. Covers solid state amplifiers, oscillators, power supplies, circuit design and proving, and troubleshooting. **Prerequisite:** Elt054. Lab fee, $3. **F**

Elt066 Digital Applications (6267), 2 class hrs and 2 lab hrs/wk, 3 cr. An introduction to logic, digital, and computer areas. Includes binary, octal, and hexadecimal number systems with conversion to decimal, nondecimal arithmetic binary number codes, Boolean algebra principles, logic circuits with emphasis on hardware and simplification. Laboratory work relates classes. **F**

Elt067 Electronic Data Processing (6240), 2 class hrs and 3 lab hrs/wk, 3 cr. An introduction to principles of electronic digital computers. Covers application and programming of computers in business, industrial, and scientific organizations. Reviews numbering systems related to computers, analyzes computer circuitry emphasizing solid-state switches, presents fundamentals of logic design with an introduction to Boolean algebra, and analyzes major divisions of digital computers with block diagrams. Lab fee, $3. **W, Sp**

Elt068 Microprocessor Systems (6249), 2 class hrs and 3 lab hrs/wk, 3cr. Basics of microcomputer systems, both hardware and software. Covers interfacing techniques and protocols. **Prerequisite:** Elt066. Programming BASIC or FORTRAN courses recommended. **F, Sp.**

Elt069 Communication Systems (6250), 3 class hrs/wk, 3 cr. An introduction to communication principles and systems. Covers principles, operation and types of systems, noise factors, filter systems, types of modulation, and transmitter and receiver principles. **Prerequisites:** Background knowledge of AC, DC and solid state devices. **F**

Elt070 Video Display Systems (6219), 3 class hrs and 6 lab hrs/wk, 5 cr. Circuit analysis of video systems. Includes theories of operation and purpose of various components. **Prerequisites:** Elt064 and Elt 054 or consent of instructor. **F, W, Sp.**

Elt071 Introduction to IC's (6209), 3 class hrs and 3 lab hrs/wk, 4 cr. Theory and application of linear and digital devices to basic circuits. **Prerequisite:** An understanding of AC and DC theories and a working knowledge of transistor theory and operation or Elt054. Lab fee, $2. **W**

Elt072 Linear IC Application (6251), 1 class hr and 3 lab hrs/wk, 2 cr. Application of linear individual circuit devices to simple and com-

plex circuits and circuit designs and their possible problems. **Prerequisite:** A course in linear and digital IC's or consent of instructor. **W, Sp**

Elt073 Advanced Electronic Circuits (6216), 1 class hr and 3 lab hrs/wk, 2 cr. Couples the real world to the digital world. Peripheral equipment and its interfacing circuits with microprocessor units. A/D and D/A converter devices and circuits. **Prerequisite:** A course in digital and analog devices or consent of instructor. Lab fee $3. **Sp**

Elt074 FCC License Preparation (6229), 3 class hrs/wk, 3 cr. A review of electronic circuits and discussion of FCC rules and regulations. Preparation for FCC examination. **Prerequisite:** Sixth term standing or consent of instructor. **Sp**

Elt075 Industrial Electronics (6218), 3 class hrs and 3 lab hrs/wk, 4 cr. Introduction to principles and applications of electronic building-block circuits to simple control problems. Emphasizes industrial component and control symbols and operating principles of temperature, pressure light, and related transducers. **Prerequisites:** Elt065 and Elt054 or consent of instructor. Lab fee, $3. **F**

Elt076 Antennas and Transmission Lines (6231), 2 class hrs/wk, 2 cr. Practical and theoretical aspects of transmission lines and antennas. Basic theory of antenna design, radiation patterns, phasing and coupling networks. Emphasizes coaxial and open-wire transmission line for all frequencies. **W**

Elt077 Telecommunications (6242), 2 class hrs and 3 lab hrs/wk, 3 cr. Modern communications by air ways, land lines, and satellites. An update on transmission systems, teleprocessing, and data communications. Includes field trips. **Prerequisite:** Elt076. Lab fee, $3. **Sp**

Elt078 Computer Programming (6269), 2 class hrs and 2 lab hrs/wk, 3 cr. Applied programming using basic and assembly languages related to control systems and industrial uses. **W**

Elt079 Fluid Systems (6196), 2 class hrs and 3 lab hrs/wk, 3 cr. Theory, operation, and design of basic hydraulic and pneumatic control systems and their components. **Prerequisite:** Math081. Lab fee, $2. **F**

Elt080 Measurement and Instrumentation Systems (6259), 2 class hrs and 3 lab hrs/wk, 3 cr. Devices used to measure physical quantities, including humidity, flow, pH, and biochemical oxygen demand. Instrumentation systems as they apply to process control. **W, Sp**

Elt081 Logical Troubleshooting (4274), 3 class hrs and 3 lab hrs/wk, 4 cr. A logical approach to troubleshooting emphasizing approaching, finding, and solving problems, and using servicing equipment. **Prerequisite:** Elt070 or consent of instructor. Lab fee, $4. **W**

Elt082 Advanced Servicing (6252), 2 class hrs and 6 lab hrs/wk, 4 cr. Solving of increasingly difficult service problems, simulating on-the-job conditions and problems. Practice of receiver circuits alignment. **Prerequisite:** Elt081 or consent of instructor. **Sp**

Elt083 Electronic Devices II (9691), 3 class hrs/wk, 2 cr. A continuation of Elt063. Advanced study of diodes, and introduction to transistors. Evening class. **Prerequisite:** Elt063. **F, W, Sp**

Elt084 Servo and Regulator Systems (6256), 2 class hrs and 3 lab hrs/wk, 3 cr. Principles and performance evaluations of open- and closed-loop control systems, servos, regulators, valves, and their applications, and reasons for choosing types for particular systems. Devices studied in theory sessions are used and tested in lab periods. **Prerequisite:** Math082 or equivalent. Lab fee, $3. **Sp**

Elt086 Electromechanical Devices I (6243), 2 class hrs and 3 lab hrs/wk, 3 cr. An introduction to mechanical devices and rotational actuators used in electromechanical systems. Covers theory of rotational actuators and studies belt and chain drives, gears, bearings, and clutches. Lab sessions provide experience in integrating rotational actuators and mechanical devices into drive and power train systems. **Prerequisite:** Math081. Lab fee, $3. **Sp**

Elt087 Electromechanical Devices II (6612), 3 class hrs and 3 lab hrs/wk, 4 cr. A continuation of Elt086 combining units covered in that course with basic electromechanical sensing and actuating devices into basic control systems. Also covers effects of alignment, loading, and system response. **Prerequisite:** Elt086. Lab fee, $3. **W**

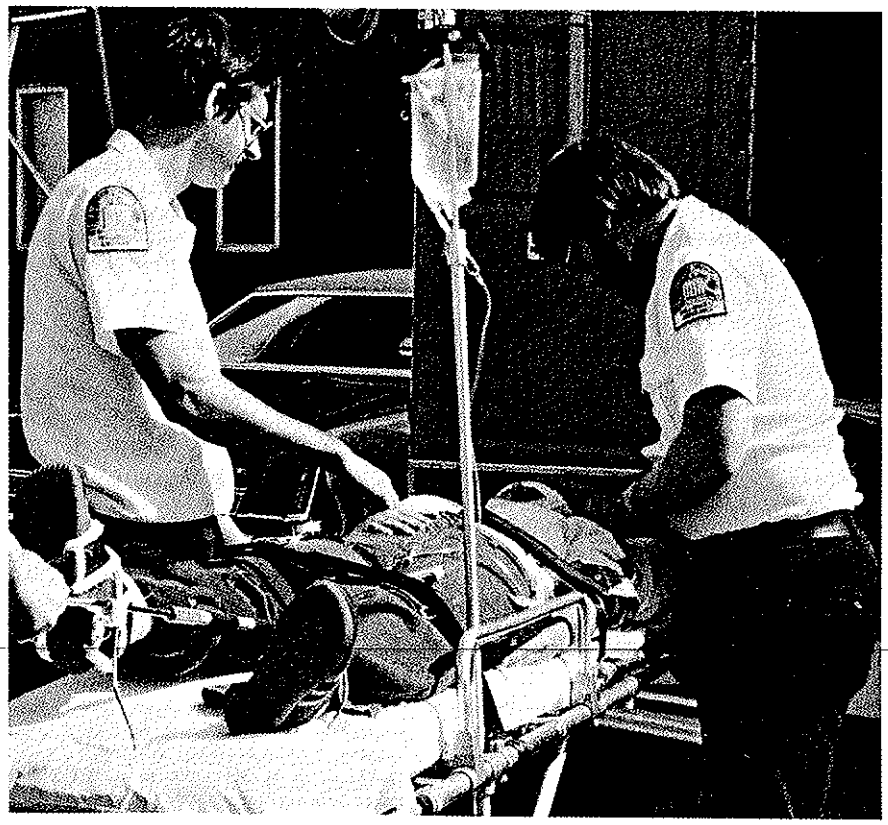
Elt099 Introduction to Micro Processors (9697), 3 class hrs/wk, 3 cr. An introduction to operations and applications of micro processors. Includes experience with circuits tied to micro processor units. Students entering this course should have a working knowledge of electronics and digital circuits. **Prerequisite:** Fifth term standing or consent of instructor. Lab fee, $3. **W, Su**

Elt280 Cooperative Work Experience (EE280A), see Agr280.

Emergency Medical Technology

EMT050 Emergency Medical Technology I (5129), 3½ class hrs and 3½ lab hrs/wk, 6 cr. How to recognize symptoms of illnesses and injuries and follow proper procedures of emergency care. For persons currently active in services which demand response to emergency care situations, such as, ambulance attendants, firemen, emergency rescue personnel, police, mountain rescue team members, and industrial personnel. **Prerequisites:** Current affiliation with an ambulance, rescue and/or patient care institution; 18 years or older; current driver's license. Student should have no history of diabetes, epilepsy or narcotic addiction or past history of alcohol addiction. If history of any of these conditions exists, student should not have lost consciousness for the past six months and be currently undergoing medical care. Limited enrollment; contact admissions office. Lab fee, $5. **F, W, Sp**

EMT051 EMT Basic Emergency Medical Technology I (5135), Part A, 1 class hr and 2 lab hrs/wk, 2 cr. Skill development in recognizing symptoms of illnesses and injuries and in proper emergency care procedures. Includes proficiency tests and evaluation sessions. **Prerequisites:** Current affiliation with an ambulance, rescue and/or patient care institution; 18 years or older; current driver's license. Student should have no history of diabetes, epilepsy or narcotic addiction, or past history of alcohol addiction. If history of any of these conditions exists, student should not have lost consciousness for the past six months and be currently undergoing medical care. Limited enrollment; contact admissions office. Lab fee, $2. **F**



EMT052 Emergency Medical Technology I (5136), Part B, 2 class hrs and 2 lab hrs/wk, 3 cr. A continuation of EMT051. **Prerequisite:** EMT051. Limited enrollment; contact admissions office. **W**

EMT053 Emergency Medical Technology I (5137), Part C, 2 lab hrs/wk, 1 cr. Observation and practice of emergency skills in selected emergency settings. **Prerequisite:** Emt052. **Sp**

EMT060 Emergency Medical Technician III (5130), Part A, 3 class hrs and 2 lab hrs/wk, 4 cr. Covers roles and responsibilities of emergency medical technicians, patient assessment, shock management, fluid therapy, and introduction to pharmacology. **Prerequisites:** Acceptance into emergency medical technology program, EMT I certification and consent of allied health director. Limited enrollment; contact admissions office. **W**

EMT061 Emergency Medical Technician III (5132), Part B, 4 class hrs and 5 lab hrs/wk, 6 cr. A continuation of EMT060. Includes drug administration, anatomy and physiology of the respiratory system, assessment, pathophysiology and management of respiratory problems, anatomy and physiology of cardiovascular system and assessment of arrhythmias. **Prerequisites:** EMT060 and consent of allied health director. **Sp**

EMT062 Emergency Medical Technician III (5133), Part C, 3 class hrs and 11 lab hrs/wk, 6 cr. A continuation of EMT061. Includes clinical experience in the following areas: emergency room, intensive care unit, operating room, mobile intensive care unit, coronary care unit. **Prerequisite:** EMT061. Lab fee, $5. **F**

EMT063 Emergency Medical Technician III (5134), Part D, 2 class hrs and 11 lab hrs/wk, 5 cr. A continuation of EMT062. **Prerequisite:** EMT062. Lab fee $5. **W**

EMT064 Emergency Medical Technician IV (Paramedic) (5141), 4 class hrs and 11 lab hrs/wk, 8 cr. A continuation of the emergency medical technology modules: management of CNS disorders, soft tissue injuries, muscular and skeletal problems, fractures, medical emergencies, emotional disturbances, emergency childbirth, gynecological problems, and care of neonatal and pediatric patients. **Prerequisites:** EMT063. Limited enrollment; contact admissions office. Lab fee, $5. **Sp**

EMT069 Rescue Fundamentals (5142), 2 class hrs and 2 lab hrs/wk, 3 cr. Elementary procedures of rescue practices, systems, components, support and control of rescue operations including ladder procedures, rope use and knots, nets, lines, and basic rescue tools. Practicum includes using rescue items and integrating basic rescue principles. **F**

EMT070 Emergency Response Driving (5143), 1 class hr and 1 lab hr/wk, 1 cr. Defensive driving tactics, evasive maneuvers, traffic hazards, weather, road conditions, regulations, laws and procedures for safe operation of an emergency response vehicle, vehicle selection and maintenance, and route planning. **Prerequisites:** EMT050, 051, 052, 053 EMT-I. **W**

EMT074 Dispatching and Radio Communications (5144), 1 class hr and 2 lab hrs/wk, 2 cr. Federal Communications Commission rules and regulations, radio frequency utilization, radio procedures, codes, voice and telemetry, transmission site selection and net composition, standard communication operating procedures, utilization coordination and systems design. **Prerequisites:** EMT050, 051, 052, 053 recommended. **W**

EMT075 Introduction to Emergency Medical Services Systems (5145), 4 class hrs/wk, 4 cr. An overview of emergency medical services systems and federal, state, and local emergency services organizations. Includes history, trends, future expectations, legislation, funding mechanisms, controls, and regulations. Personnel involvement in operations, health systems, and emergency medical services interaction. **F**

EMT079 Disaster Planning and Management (5149), 3 class hrs/wk, 3 cr. Introduction to disasters, including types, planning, triage, management, human behavior, simulation, and mobilization of resources. **Offered as needed.**

EMT280 Cooperative Work Experience, see Agr280.

Engineering, see General Engineering

English

Engl01, 102, 103 Introduction to English Literature, 3 class hrs/wk, 3 cr. Major literary documents and authors. Lecture-discussion and individual study on relation of authors and genres to their historical, cultural, intellectual and aesthetic contexts. Engl01 covers Beowulf to the renaissance in England, Engl02 from Milton to the romantic movement, and Engl03 from the last half of the romantics to modern British fiction. **Engl01: F; 102: W; 103: Sp**

Engl04 Introduction to Fiction, 3 class hrs/wk, 3 cr. Analysis of fiction literature by reading works in English and in translation. Introduces the short story and novel, basic literary concepts, and terminology. **F, W, Sp**

Engl05 Introduction to Dramatic Literature, 3 class hrs/wk, 3 cr. Dramatic literature by an international range of authors. Emphasizes students' perception of literary issues through discussion of basic dramatic conventions, characterization, theme, literary uses of language, and setting. **W, Sp**

Engl06 Introduction to Poetry, 3 class hrs/wk, 3 cr. Analysis of poetry by reading works in English and in translation. Introduces literary concepts and terminology for poetry, and explores types, elements, and structures of poetry. **Sp**

Engl07, 108, 109 Introduction to World Literature, 3 class hrs/wk, 3 cr. A sequence on outstanding works of ancient, medieval, and modern literature that have had permanent and wide appeal outside their own countries. **Engl07: F; 108: W; 109: Sp**

Engl61 Introduction to Literature of the Technological Age (1205), 3 class hrs/wk, 3 cr. An introduction to essays, short stories, novels, poems, and plays through discussion and individual study. Includes nonfiction works coupled with modern novels. Emphasizes how events affecting characters in literature relate to modern technology. **W**

Eng201, 202, 203 Introduction to Shakespeare, 3 class hrs/wk, 3 cr. Formal elements of Shakespeare's work/structure, characterization, setting, movement and imagery—as well as more elusive elements of the plays—their larger meaning and value systems. Analyzes Shakespeare's work in relation to the larger mode of tragedy, comedy, and genre of drama. Discussion of plays and critical essays of them. Eng201, tragedies, Eng202, comedies; and Eng203, important Shakespearean plays. **Eng201: F; 202: W; 203: Sp**

Eng210 College Vocabulary, 3 class hrs/wk, 3 cr. A study of affixes, root words, derived forms, loan words, etymologies, and definitions of words. **Prerequisite:** score of eighth grade level vocabulary or above on diagnostic test. **Offered as needed.**

Eng253, 254, 255 Introduction to American Literature, 3 class hrs/wk, 3 cr. Selected genres (poetry, fiction, drama and expository, religious and critical prose) and works, from the beginning of American literature to the present, in ways they imitate, interpret, and direct personal and social lives. Reading and assessing interpretive literature for personal enjoyment. Emphasizes written and oral discussions of assigned readings. **Eng253: F; 254: W; 255: Sp**

Eng261 Science Fiction, 3 class hrs/wk, 3 cr. Character, setting, literary use of language, theme, and history in science fiction by international authors. **Sp**

Eng262 Western American Literature, 3 class hrs/wk, 3 cr. A study of themes and other elements peculiar to Western America and common to all literature, through reading short stories, novels, poetry, and nonfiction of the American West. **Offered as needed.**

English as a Non-Native Language

ENL010 English as a Second Language-Speaking (Eng030A), 2 class hrs and 2 lab hrs/wk, 3 cr. Speaking and listening skills to increase communication and comprehension of the English language for second language learners. Uses skills covered in ENL015. **Prerequisite:** Teacher referral and STEL test. **F, W, Sp**

ENL015 English as a Second Language-Writing (030B), 2 class hrs and 2 lab hrs/wk, 3 cr. Writing basic and essential English language structures to prepare second language students for advanced work. **Prerequisite:** Teacher referral and STEL test. **F,W, Sp**

ENL110A English as a Non-native Language I (Engl10A), 3 class hrs and 2 lab hrs/wk, 4 cr. For foreign students learning how to listen and understand native speakers, speak English, read and speak with correct intonation, write appropriate grammatical English patterns, and improve study skills. **Prerequisite:** Placement test. **F**

ENL111 English as a Non-native Language II (Engl10B), 3 class hrs and 2 lab hrs/wk, 4 cr. For students whose first language is not English. Emphasizes essential structure of English, reading, and vocabulary development skills. **Prerequisite:** Placement test. **W**

ENL112 English as a Non-native Language III (Engl10C), 3 class hrs and 2 lab hrs/wk, 4 cr. For students of English as a second language at intermediate and advanced levels. Empha-

sizes thinking in English and written communication, and development of basic logical methods of organization required for Wr121. **Prerequisite:** Placement test. **Sp**

Ethnic Studies, see also Social Science

ES201 Mexican American Culture, 1 class hr/wk, 1 cr. A four-part workshop on family lifestyles and values and the geographical and regional culture of people of Mexican-American heritage. **F, W, Sp, Su**

Family Living

FL222 Partner Relationships, 3 class hrs/wk, 3 cr. A practical, functional course for students interested in succeeding in marriage or close personal relationships. Explores a wide range of possibilities which modern marriages offer, and options open to couples in deciding upon a marital relationship that will fulfill both personal and mutual needs. **F, W, Sp**

FL223 Family Living, 3 class hrs/wk, 3 cr. Patterns of family living in modern society. Includes the varying roles and interaction of family members and factors affecting family life. **Offered as needed.**

FL230 Single Parent/Stepparent Experience, 3 class hrs/wk, 3 cr. A practical, functional approach for families with single parents and/or stepparents. **Sp**

FL250 The Developmental Kindergarten, 3 class hrs/wk, 3 cr. How kindergarten children learn. Covers development, planning, and implementation of curricula, evaluation of materials and methods, study of current educational issues, and ways to help children make transition to elementary school. **Prerequisites:** ECE061, ECE062 and second year standing in Early Childhood Education program or consent of instructor. **Sp**

FL260 Child Abuse and Neglect, 3 class hrs/wk, 3 cr. Problems of child abuse. For students interested in child care, teaching, and other areas. Includes causes of abuse, the abused child, abusive parents, the role of teachers, areas of treatment, education, and local organizations that can assist abused children and abusive parents. **W**

FL270 Child Care for Elementary School Children, 3 class hrs/wk, 3 cr. A developmental approach to child care for elementary school children, approximately six to 11 years of age. Covers child development, needs and guidance, program, environment, equipment, parent and community involvement, staffing, administration, finances, and state and federal standards. **Prerequisite:** Four terms of early childhood education program or consent of instructor. **Sp**

FL290 Perspectives on Effective Parenting, 3 class hrs/wk, 3 cr. Principles and techniques for establishing and maintaining effective human relationships. Includes fundamentals of relationships, listening skills, ways to communicate feelings, verbal and nonverbal communication, problem solving, how to handle conflicts, and how to create emotional climates. **W**

Field Experiences

FE205 Job Search Techniques, 1 class hr/wk, 1 cr. How to find and apply for a job, prepare and write resumes, gather job information, prepare for interviews, learn job requirements and what employers look for in an employee. **F, W, Sp**

FE280 Cooperative Work Experience, see Agr280.

Film Arts

FA251 Film Production, 3 class hrs/wk, 3 cr. Use of the camera, equipment, and lighting to capture proper image, action, and illusions of motion. **F, W, Sp**

FA255 Understanding Movies, 2 class hrs and 3 lab hrs/wk, 3 cr. History, technique, and art of film. In-class film viewing and discussion. How to evaluate a variety of stylistic approaches. Lab fee, $8. **F**

FA256 Understanding Movies: The Great Film Directors, 2 class hrs and 3 lab hrs/wk, 3 cr. An analysis of films from the standpoint of the director-the creator. Studies works of one or two directors in an effort to understand and critique individual films as the works of artists, especially within the context of a body of work expressing a particular and unique view of the world. Lab fee, $8. **W**

FA257 Understanding Movies: Themes and Genres, 2 class hrs and 3 lab hrs/wk, 3 cr. An examination of a number of films representing a single genre (westerns, comedies, etc.) or expressing common themes. Focuses on various directors and their diverse styles, techniques, and personal expressions. Lab fee, $8. **Sp**

Fire Protection

FrP050 Introduction to Fire Protection (5100), 3 class hrs/wk, 3 cr. Philosophy and history of fire protection. History of loss of life and property by fire, role responsibility of fire departments in a community, organization and function of fire protection agencies and allied organizations, sources of professional literature, survey of professional career opportunities and requirements, development of resume. **F**

FrP051, 052, 053; 061, 062, 063 Fire Related Experience (5122), (5123), (5124), (5125), (5126), (5127), 9 lab hrs/wk, 3 cr. Orientation to fire incident related experience courses, engine company organization, engine configuration, small tools and minor equipment carried, basic hose practices, basic hose lays, use of protective breathing apparatus, response, district maps-phantom box areas, communication procedures, fire apparatus driving practices. **F, W, Sp**

FrP054 Fire Service Hydraulics (5104), 3 class hrs and 2 lab hrs/wk, 4 cr. Hydraulic laws and formulas as applied to fire service. Includes a review of basic math and application of formulas and mental calculations to hydraulic problems. Covers fire ground water supply problems and underwriter's requirements for pumps and accessories. **Prerequisite:** Math051 or consent of instructor. **W**

FrP055 Elementary Science/Firefighters (5103), 3 class hrs and 2 lab hrs/wk, 4 cr. Practical physics covering matter, measurements, machines, and energy. Laboratory demonstrations and experiments help clarify principles and procedures covered in class. Lab fee, $4. **W**

FrP056 Fire Service Rescue Practices (5120), 2 class hrs and 5 lab hrs/wk, 4 cr. Use of rescue tools and related equipment, common rescue carries, search and rescue procedures, handling nets and lines, care of victims and transportation, excavation, and electrical rescue procedures. **Prerequisites:** FrP051 and FrP052 or EMT069. **Sp**

FrP057 Fire Science I (6995), 3 class hrs and 2 lab hrs/wk, 4 cr. Physical and chemical properties of substances, chemical bonds and reactions, ionization, covalent substances. Laboratory demonstrations and experiments. Must be taken in sequence. **Prerequisite:** FrP055. Lab fee, $4. **Sp**

FrP058 Fire Pump Construction and Operation (5105), 2 class hrs and 2 lab hrs/wk, 3cr. Basic theory of pumps, water supply, principles of driving, drafting, and pumping from hydrant for pump operators. **Prerequisite:** FrP054 or consent of instructor. Lab fee $1. **Sp**

FrP059 Fire Science II (6996), 3 class hrs and 2 lab hrs/wk, 4 cr. Characteristics and behavior of fire, fundamentals of physical laws, and chemical reactions occurring in fire and fire suppression. Analyzes factors contributing to fire---its cause, rate of burning, heat generation and travel, by-products of combustion and its confinement, control and extinguishment. Lab fee, $4. **F**

FrP060 Fundamentals of Fire Prevention (5101), 3 class hrs/wk, 3 cr. Philosophy and history of fire protection, review of life and property loss statistics, fire protection agencies, current and future fire protection problems, fire prevention programs, general public education, development and enforcement of fire prevention laws and regulations, responsibility of state fire marshals, local fire departments, property owners, fire safety, reporting fire prevention activities, drills, policies, public relations, DEQ regulations. Emphasizes "company inspections." **F**

FrP061, 062, 063. See FrP051, 052, 053.

FrP064 Hazardous Materials I (5108), 3 class hrs/wk, 3 cr. The chemistry of fires; hazards of flammable materials and what to do about them. Includes flammable liquids, pressurized gases, liquified gases, cryogenics, flammable solids, combustible metals, plastics, and oxidizing agents. **Prerequisite:** FrP055 or consent of instructor. **F**

Frp065 Hazardous Materials II (5109), 3 class hrs/wk, 3 cr. Handling of emergencies involving explosive and unstable materials, rocket propellants, water reactive materials, poisons, corrosives, combustion products, and radioactive materials. **Prerequisite:** FrP064 or consent of instructor. **W**

FrP066 Building Construction for Fire Suppression (5131), 3 class hrs/wk, 3 cr. Fire problems inherent in structural elements of buildings. How knowledge gathered through interpretation of blueprints and inspection of various building types provides a basis for applying effective extinguishment practices, with adequate safeguards for personnel. **W**

FrP070 Fire Fighting Tactics and Strategy (5113), 3 class hrs/wk, 3 cr. Pre-fire survey and planning, response and size-up, fire-ground tactics, analysis, and post-mortem. **Sp**

FrP071 Fire Protection Systems and Extinguishers (5106), 3 class hrs/wk, 3 cr. Portable extinguisher equipment, sprinkler systems, protection systems for special hazard, fire alarm and detection systems, ventilating systems. **Prerequisite:** FrP065 and FrP059 or consent of instructor. **W**

FrP072 Fire Codes and Ordinances (5116), 3 class hrs/wk, 3 cr. A study of the uniform fire code, uniform building code, flammable liquid and other codes relating to fire prevention and life safety. **Prerequisite:** FrP050 and FrP060 or consent of instructor. **W**

FrP073 Firefighters Law (5162), 2 class hrs/wk, 2 cr. Firefighters' legal responsibilities in driving, inspection, alarms and communications, other fire protection activities. Firefighters' rights, duties, liabilities, and participation in legal activities including state and local fire marshal laws relating to fire protection. **Sp**

FrP074 Fire Investigation (5107), 3 class hrs and 2 lab hrs/wk, 3 cr. Burning characteristics of combustibles, interpretation of clues, burn patterns leading to points of origin, identification of incendiary indications, sources of ignition and ignited materials, and preservation of fire scene and evidence. **Sp**

FrP075 Aircraft Crash/Fire Rescue (5128), 1 class hr and 3 lab hrs/wk, 1 cr. Pre-planning activities for on-airport and off-port emergencies. Approach, positioning, rescue procedures, and application of control techniques. **Prerequisites:** FrP051, 052, 053, 061, 062 or consent of instructor. **Sp**

FrP076 Fire Department Organization and Management (5112), 3 class hrs/wk, 3 cr. Fire company and department organization and management, duties and responsibilities, response to alarms, public relations, fire prevention, records, and communications. Basics of why and how various functions of administration are carried out, authority and responsibilities of command officers, chiefs, and elected offficials. **Prerequisites:** FrP050, FrP060 and Psy100, or consent of instructor. **Sp**

FrP077 Fire Service Instructor Training (5168), 12 class hrs and 10 lab hrs/wk, 2 cr. The fire service instructor and his job, principles of learning, teaching procedures (preparing course outlines and lesson plans, managing a classroom, evaluation techniques), training aids, and devices. **Prerequisite:** Second year status with fire protection agency or consent of instructor. **Offered as needed.**

FrP078 Introduction to Training Programs (5169), 10 class hrs and 6 lab hrs/wk, 1 cr. Purposes of drills and training programs, planning training schedules and drill activities, records and reports, evaluation methods, ISO training requirements and records, motivating personnel to train. **Prerequisite:** Completion of Fire Service Instructor Training or three years full-time experience. **Offered as needed.**

FrP080 Fire Prevention Fundamentals (5160), 3 class hrs/wk, 3 cr. History and philosophy of fire prevention, reviews life and property loss statistics, fire protection agencies, fire problems in the U.S., development of fire safety laws and regulations, development of loss reduction programs, responsibilities of federal, state and local fire officials. Emphasizes the role of fire prevention officers. **Prerequisite:** Consent of instructor. **Offered as needed.**

FrP081 Fire Prevention Inspection (5161), 3 class hrs/wk, 3 cr. Methods of contemporary fire prevention inspection practices. Includes preparation, pre-approach information, written inspection notices, relations with owners and occupants, compliances. **Prerequisites:** FrP050, FrP060, FrP072 or consent of instructor. **W**

FrP082 Evidence Photography for Fire and Arson Investigators (5118), 3 class hrs/wk, 3 cr. How to improve quality and efficiency level of evidence photography, and use a broad spectrum of photographic knowledge to further the science of forensic photography. **Prerequisite:** Consent of instructor. Lab fee, $15. **W**

FrP083 Water Distribution Systems (5117), 3 class hrs/wk, 3 cr. Main systems-size, gridding, valves, hydrants, pumping stations and reservoir, fire flow requirements for commercial and residential districts, storage tanks, cisterns, and mobile supplies. **Offered as needed.**

FrP084 Building Construction-Fire Protection (5164), 3 class hrs/wk, 3 cr. Classification of buildings, structural features affecting fire spread, effect of fire on structural strength, fire stops, ratings of materials, fire retardants, sanborne maps. **Prerequisite:** Consent of instructor. **F**

FrP085 Industrial Fire Protection (5165), 3 class hrs/wk, 3 cr. Specific concerns and safeguards related to business and industrial fire protection organization and development, fire prevention programs, fire brigade organization, cooperation between public fire departments and private fire brigades, industrial fire hazards and prevention for industrial plants. **Prerequisites:** Second year standing in fire protection or building inspection curriculum or consent of instructor. **W**

FrP086 Advanced Detection and Protection Systems (5166), 3 class hrs/wk, 3 cr. Heat, flame, smoke, ion detectors, alarm transmitting and receiving equipment, system inspecting and servicing requirements, extinguisher system design and installation standards, sprinkler system valves, water supply, piping, service testing, protection systems for special hazards. **Sp**

FrP087 Fire Insurance Fundamentals (5167), 3 class hrs/wk, 3 cr. The relationship between fire defenses, fire losses, and insurance rates, basic insurance principles, fire loss experience, loss ratio, applying the ISO grading schedule, and state regulations of fire insurance. **Sp**

FrP280 Cooperative Work Experience, see Agr280.

Foods/Nutrition

FN225 Nutrition, 4 class hrs/wk, 4 cr. The relationship of food and its components to health particularly for young adults. Considers current national and international concerns. **F, W, Sp**

Food Service

FS050 Quantity Foods Production I (3201), 3 class hrs and 20 lab hrs/wk, 8 cr. Supervised preparation of quantity foods in a commercial kitchen. Includes preparation of various breakfast items, salads, entrees, stocks, soups, sauces, bakery, desserts, and short order cooking by standardized recipes following professional preparation techniques. Includes handling of tools, equipment, and materials. Lab fee, $15. **F**

FS051 Quantity Foods Production II (3202), 3 class hrs and 20 lab hrs/wk, 8 cr. Preparation of quantity foods in an operating kitchen under professional guidance. Assigned projects in international cuisine and service. **Prerequisite:** FS050. Lab fee, $15. **W**

FS052 Quantity Foods Production III (3203), 3 class hrs and 20 lab hrs/wk, 8 cr. Preparation of quantity foods in an operating kitchen under professional guidance. Includes classical buffet and garde-manger cookery. **Prerequisite:** FS051. Lab fee, $15. **Sp**

FS055 Dining Room Operation I (3204), 1 class hr and 2 lab hrs/wk, 2 cr. Experience in various types of restaurant services-cafeteria, snack bar, fountain, banquet, and table service. Lab fee, $5. **F**

FS056 Dining Room Operations II (3205), 1 class hr and 2 lab hrs/wk, 2 cr. Continuation of FS055. Includes American and English service techniques. Lab fee, $5. **W**

FS057 Dining Room Operations III (3206), 2 class hrs/wk, 2 cr. Continuation of FS056. Includes discussion and demonstration of French and Russian service. **Sp**

FS060 Food and Nutrition (3200), 2 class hrs/wk, 2 cr. Principles of basic food preparation, nutritional values of foods, and retention of nutrients in cooking for commercial restaurants, fast foods operations, institutions, and industrial catering. **F**

FS061 Sanitation and Safety (3210), 2 class hrs/wk, 2 cr. Food services sanitation and environmental health, bacteriology and food contamination, personal hygiene and safety practices, legal regulations of federal and state agencies pertaining to restaurant sanitation and USHA requirements. **F**

FS062 Menu Planning and Culinary Terms (3211), 2 class hrs/wk, 2 cr. Principles of menu planning using the menu as a tool for marketing, merchandising, personnel scheduling, equipment planning, and pricing. Covers single use, permanent, and cycle menus, standard menu terminology, and foreign terms. Includes student projects in menu planning and recipe research for special occasions. **W**

FS063 Elementary Food Cost Analysis (3213), 2 class hrs and 1 lab hr/wk, 3 cr. Basic methods of computing food costs, including costs of standard recipes, yield of raw food, standard

portions, analysis of daily food costs, and the steward's report. **Prerequisite:** FS064 or equivalent. **Sp**

FS070 Purchasing and Store Control (3212), 3 class hrs/wk, 3 cr. Techniques of buying for large-scale food operations. Compares food quality, establishes food specifications using federal and state grade standards, receiving stock, and issuing controls. Lab fee, $3. **W**

FS071 Hospitality Beverages (3271), 3 class hrs/wk, 3 cr. Introduction and survey of wine, beer, and distilled spirits, emphasizing historical origin, evolution, production techniques, geographical and stylistic differences. Covers economic values in the hospitality industry and problems of control and abuse. On-site visitations to brewery, wholesale operation, and restaurant. **F**

FS072 Food Service Facilities Design (3214), 3 class hrs/wk, 3 cr. Application of design to institutional and restaurant food service facilities. Includes principles of layout design laws, regulations concerning food service operations and set-up of lounge operations. Design methods and techniques cover fast food to full-service operations. Features speakers from various governmental agencies which regulate construction and operation of food service facilities. **W**

FS073 Food Service Management (3260), 3 class hrs/wk, 3 cr. Methods and techniques for effective, efficient restaurant operations. Includes methods and procedures of personnel selection, training, motivation, communications, labor relations, work systems, financial systems, licensing regulations, customer relations, and prognosis of business. **W**

FS077 Food Service Maintenance, 3 class hrs/wk, 3 cr. Organization of maintenance and engineering of food service operations. Includes discussion of energy supplies, equipment, preparation, service, sanitation, employee and public safety, preventative care and service, and influence of regulations and service costs. **W**

FS280 Cooperative Work Experience, see Agr280.

Foreign Languages, see Germanic Languages, Oriental Languages, Romance Languages.

Forestry

For051 General Forestry (3600), 3 class hrs/wk, 3 cr. An orientation and overall picture of forestry in the United States. Includes how forests and man are inter-dependent, the role of forests in the building of the country, the distribution and character of forests, what a forest and forestry are, silvicultural systems, reforestation, and the history of forest protection as related to fire, insects, animals, and disease. **F, W**

For052 Tools and Equipment (3605), 1 class hr and 2 lab hrs/wk, 2 cr. Proper use and care of hand tools and power tools commonly used in forestry work. Includes fundamentals of falling and bucking, sharpening edged tools, and safety in the woods. Tools include files, axes, pulaskis, hazel hoes, shovels, peevees, wedges, mauls, and crosscut and chain saws. Includes practical work for cooperating individuals or agencies. Discussion and practice of foremanship. Lab fee, $5. **F, Sp.**

For053 Introduction to Engineering Calculators (6192), 2 lab hrs/wk, 1 cr. How to select a pocket calculator to use in a particular curriculum, and become proficient in its use. Begins with basic arithmetic and progresses to varied but typical formula and problems peculiar to curricular subjects. Lab fee, $3. **F, W, Sp**

For054 Introduction to Forestry (3500), 12 hrs/wk (3 hrs/day, 4 days), 1 cr. An overview of careers open to Forest Technology graduates. Students sample a variety of field and laboratory exercises representative of training offered in this program. **Su**

For056 Industrial Accident Prevention (4190), 3 class hrs/wk, 3 cr. An extensive study of accident causes and costs to employer and employee. Combines reading, lecture, and Workers' Compensation Board films on accident prevention and safety awareness from the standpoint of employer and employee, examining the role of each in promoting safe work practices. **F, Sp**

For061 Tree Identification I (3610), 1 class hr and 2 lab hrs/wk, 2 cr. A review of basic botany related to tree identification. Includes taxonomy, flower, and plant parts emphasizing fruit, bark, and twig characteristics. Deals with the common commercial coniferous species of the Pacific Northwest especially native Oregon species. Practices use of the dichotomous key, and studies scientific names and the economic importance of each tree. **W**

For062 Tree Identification II (3611), 1 class hr and 2 lab hrs/wk, 2 cr. Identification of native hardwoods of Oregon. Includes common forest shrubs. Covers use of dichotomous genus key and of terms. Features field recognition labs, use of scientific names. **Sp**

For066 Forest Products (4280), 3 class hrs and 3 lab hrs/wk, 4 cr. Major non-chemical wood products industries and a brief introduction to the pulp and paper industry. Emphasizes economic importance, properties, uses, and manufacturing processes. Lab fee, $5. **W**

For067 Forest Sciences (3626), 3 class hrs/wk, 3 cr. A study of important forest diseases, forest insects, and animal influences on trees and forests. Covers descriptions, damage inflicted, damage control techniques, and operational control projects. **F, Sp**

For068 Forest Photogrammetry (3624), 2 class hrs and 2 lab hrs/wk, 3 cr. Basic principles of photogrammetry and photo interpretation emphasizing uses of vertical aerial photographs in forest industries. **Prerequisite:** Math052. Lab fee, $5. **W, Sp**

For071 Natural Cover Fire Protection (5151), 3 class hrs and 2 lab hrs/wk, 4 cr. Organization, methods, tactics, and strategy of safely controlling and extinguishing grass, brush and forest fires, uses of hand tools, portable pumps, motorized apparatus, aircraft and helicopters, chemicals and other related equipment used in the suppression of natural cover fires. Also covers forest and wildland fire prevention techniques. **F**

For076 Forest Mensuration I (6300), 3 class hrs and 4 lab hrs/wk, 4 cr. First of two courses. Care and use of forestry instruments, measurement and appraisal of trees, stands and forest sites. Field labs emphasize mapping, fixed-plot, and variable-plot cruising. **Prerequisites:** For061, Math053 (or concurrent enrollment), and Cvl060 (or concurrent enrollment). Lab fee, $5. **Sp**

Fr077 Forest Mensuration II (6301), 3 class hrs and 4 lab hrs/wk, 4 cr. Second of two courses. Reviews For076 and covers variable-plot and 3-P cruising methods in detail. Introduces regeneration surveys, stand inventory methods, growth and yield, stumpage valuation and metric conversion. **Prerequisite:** For076. Lab fee,$5. **F**

For078 Scaling Practices (3617), 2 class hrs and 6 lab hrs/wk, 4 cr. Theory and principles of log scaling. Includes field scaling of logs for net scale. Discusses types of defects and corresponding deductions for each in field observations. **Prerequisite:** For061. Lab fee, $5. **W**

For081 Logging Practices (4282), 2 class hrs and 6 lab hrs/wk, 4 cr. Harvesting and transportation of logs. Lab fee, $5. **F**

For083 Forestry Reports (3660), 3 class hrs/wk, 3 cr. Principles of writing memos, letters, and technical forestry reports, and preparing maps. Particularly for forest technicians working in forestry field operations. **Prerequisites:** Com051 or equivalent and For076. **W**

For087 Wood Structure and Identification (6280), 1 class hr and 6 lab hrs/wk, 3 cr. A study of basic wood structure and gross features of wood. Includes identification of common softwood and hardwood species. Lab fee, $5. **W**

For088 Methods of Supervision (4287), 3 class hrs/wk, 3 cr. The basic techniques of supervision. Covers leadership, organization, communications, morale, job analysis, job training, accident prevention, planning time studies, cost analysis, etc. **Sp**

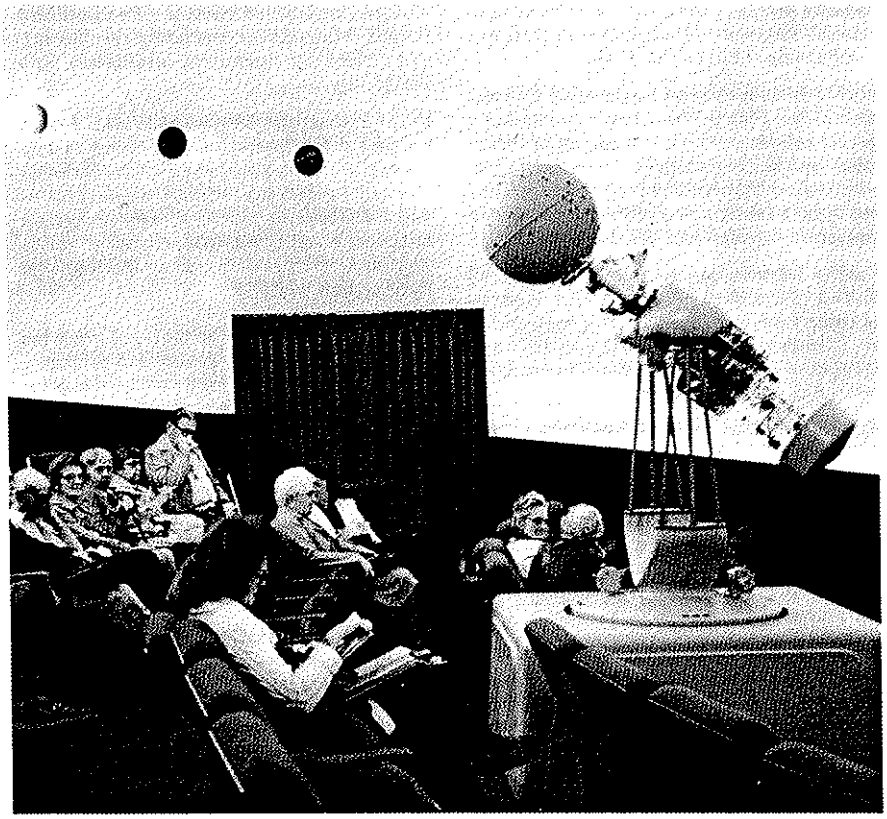
For091 Silviculture (3630), 3 class hrs/wk, 3 cr. Tree habits, forest ecology, and silvicultural practices in the management of Pacific Northwest forest lands and timber. **Prerequisites:** For051, For061, For062, For067 and For076. **W**

For092 Wood Industry Economics (4286), 3 class hrs/wk, 3 cr. Economic fundamentals unique to forest land and products management. Emphasizes long term and unique characteristics of the resources and conversion methods and goals to supply the nation's consumers. Notes exports, imports, and the pressures for varied uses of the land. **W**

For093 Forestry Seminar (3601), 1 class hr/wk, 1 cr. A continuing discussion of the essentials necessary for successful employment in a forestry situation. Includes resumes, interviews, working conditions, safety, evaluations, and review of technical subjects. **W**

For096 Forest Road Surveying (6510), 2 class hrs and 6 lab hrs/wk, 4 cr. Principles and practices of forest road surveying, design, and layout, including locations in field, grades, profiles, drainage, curves, cross-sections, earthwork computations, slope-staking, and referencing. **Prerequisites:** Math053, Cvl060, Cvl061. Lab fee, $5. **Sp**

For280 Cooperative Work Experience, see Agr280.



General Engineering

GE115 Graphics, 1 class hr and 7 lab hrs/wk, 3cr. Graphic communication for pre-engineering students. Multiview projection, dimensioning techniques, pictorial representation, geometric construction, working drawings, and an introduction to welding drawing. Technical subjects include tolerancing and fasteners. Lab fee, $3. **F or as needed.**

General Sciences

GS104, 105, 106 Physical Sciences, 3 class hrs and 2 lab hrs/wk, 4 cr. GS104-Geology/Astronomy; GS105-Chemistry; GS106-Physics. Fundamental principles of physics, chemistry, astronomy, and geology, and how humans relate to them. Development and application of scientific methods. Before enrolling in this course, students are advised to complete one term of high school algebra or its equivalent. May not be taken for credit if a student has completed six or more hours in a college-level course in chemistry or physics. Lab fee, $4 per course. **GS104: F; 105: W; 106: Sp**

GS119 Solar Energy, 3 class hrs/wk, 3 cr. An introduction to solar radiation, flat plate collectors, active and passive solar heating systems, solar thermal electric generating schemes, and photovoltaic devices. **Offered as needed.**

GS121 Introduction to Astronomy, 3 class hrs/wk, 3 cr. A descriptive treatment of astronomy which examines the solar system, other stars, and the galaxy. Observational techniques are explained in the planetarium. **Offered as needed.**

GS199 You and Your Environment, 3 class hrs/wk, 3 cr. An inquiring course on effects of pollution on the environment. Attempts to identify and study sources, causes, and effects of pollution and possible ways to eliminate environmental pollution. **Offered as needed.**

GS200 Computer Applications in Science and Technology, 3 class hrs and 2 lab hrs/wk, 4 cr. A continuation of Mth133B for mathematics, science, and engineering students. Includes finding roots of equations, graphing, curve fitting, and simulation to solve practical problems of scientific interest. Emphasizes writing and debugging computer programs on a microcomputer system, such as the APPLE or TRS-80. **Prerequisite:** Mth133B or equivalent or consent of instructor. **Offered as needed.** Lab fee, $2.

GS207 Astronomy, 3 class hrs/wk, 3 cr. An introduction to the solar system. Includes an examination of the earth and moon, planets, and minor members of the solar system. **Prerequisite:** Mth010 or equivalent recommended. **F**

GS208 Astronomy, 3 class hrs/wk, 3 cr. The nature of stars. Includes a stellar classification, evolution, techniques of observation, black holes, and neutron stars. **Prerequisite:** GS207 or consent of instructor. **W**

GS209 Astronomy, 3 class hrs/wk, 3 cr. A descriptive treatment of stellar associations. Includes star clusters, gas clouds, the Milky Way and other galaxies. Discusses origin and evolution of the universe. **Prerequisite:** GS208 or consent of instructor. **Sp**

Geography

Geog105 Introductory Geography, 3 class hrs/wk, 3 cr. Physical elements of geography and earth's environment. Focuses on water, landforms, atmosphere, vegetation, and soils. Introduction to problems of graphic representation of the earth. **F, W, Su**

Geog106 The Cultural Environment, 3 class hrs/wk, 3 cr. An introduction to cultural landscapes and areas and integrative systems. Focuses on urban areas, political patterns, language, population, religion, agriculture studies and industry. Studies ecologically oriented issues related to these topics. **W, Sp, Su**

Geog107 Historical Geography, 3 class hrs/wk, 3 cr. An introduction to historical evolution of cultures in the context of man-land relations. Focus is on culture areas, diffusion, and ecology in the past. Special emphasis on cultural landscapes in South Asia, the Middle East, Mediterranean Europe, Northwest Europe, and the United States. **F, Sp, Su,**

Geog199 The Urban Environment, 3 class hrs/wk, 3 cr. Development, evolution, and problems of cities, with special emphasis on Portland and Salem and their metropolitan areas. Focuses on spatial and functional characteristics of cities, and upon problems of human adjustment in the past and present. **F, Su**

Geog200 Environment and Man, 3 class hrs/wk, 3 cr. Alteration of natural systems and environmental problems created by natural resources and energy development programs. Discusses soils, climate, vegetation, land forms, and water. **W, Su**

Geology

G101 Geology of Western Oregon, 3 class hrs and 2 lab hrs/wk, 4 cr. An introduction to evolution of the western Oregon landscape. Lab fee, $4. **F, Su**

G102 Oregon Geology, 3 class hrs and 2 lab hrs/wk, 4 cr. An introduction to evaluation of Oregon's earth and mineral resources. Requires only elementary knowledge of basic earth science concepts. Lab fee, $4. **W**

G103 Geology Eastern Oregon, 3 class hrs and 2 lab hrs/wk, 4 cr. The exceptional nature of the geology of eastern Oregon. Discusses how physical and temporal conditions have affected the region's geology. Lab fee, $4. **Sp**

G199 Geological Field Studies, 1 class hr and 4 lab hrs/wk, 3 cr. Geological formation, rocks and minerals of various areas. Field studies emphasize paleontology. **Offered as needed.**

G199A Geological Field Studies, 1 class hr and 2 lab hrs/wk, 2 cr. Introductory weekend field trip summary seminar. Students write a geological descriptive report (roadlog). **W**

G199B Geological Field Studies, 1 class hr and 1 lab hr/wk, 1 cr. Introductory class weekend field trip summary seminar. **Sp**

G201, 202, 203 Geology, 3 class hrs/wk, 3 cr. Earth materials,processes and structures, and history of earth and life. **G201: F; G202: W; G203: Sp**

G204, 205, 206 Geology Laboratory, 2 lab hrs/wk, 1 cr. Laboratory and field work to accompany G201, 202, 203. Lab fee, $4. **G204: F; G205: W; G206: Sp**

G208 Volcanoes, 3 class hrs/wk, 3 cr. A comprehensive study of volcanic phenomena. **Offered as needed.**

Germanic Languages

GL101, 102, 103 First Year German, 4 class hrs/wk, 4 cr. Develops listening, speaking, and writing skills. Emphasizes comprehension of grammar and word patterns. **F, W, Sp**

GL107 First Year Norwegian, Term I, 4 class hrs/wk, 4 cr. A grammatical foundation in formal and idomatic Norwegian, with emphasis on speaking, reading, and writing. **F**

GL108 First Year Norwegian, Term II, 4 class hrs/wk, 4 cr. A cultural approach to written and spoken Norwegian for beginners who wish to speak, read, write, and understand the language. **W, Sp**

GL109 First Year Norwegian, Term III, 4 class hrs/wk, 4 cr. A continuation of GL108. **Sp**

GL201 Second Year German, Term I, 4 class hrs/wk, 4 cr. Intensive instruction in grammar, vocabulary, and syntax plus a study of contemporary German literature and culture. **Prerequisite:** GL103 or two years of high school level German. **F**

Health Education, see also Allied Health

HE199A Seminar in Health Studies-Narcotics, Alcohol, 3 class hrs/wk, 3 cr. Multidisciplinary study of detrimental factors of society and their effect on the body. **F, W, Sp, Su**

HE199B Personal Health and Human Sexuality, 3 class hrs/wk, 3 cr. Personal health attitudes and behavior in relation to sexuality. Covers environmental conditioning and its relationship to identity, self-esteem, love, and role definition, and physiology in relationship to environmental conditioning and human sexual response. **F, W, Sp, Su**

HE199D Consumer's Guide to Health, 3 class hrs/wk, 3 cr. A look at health resources available to consumers: doctors, nurses, hospitals, drugs, insurance, welfare, the law, alternatives, psychologists. How to choose and use them and stay healthy when possible. Questions posed and answers sought. **Sp**

HE199E Nutrition, Weight Control and Physical Fitness, 3 class hrs/wk, 3 cr. Methods of maintaining or improving fitness through consideration of diets and dieting, obesity, types of exercise, physical testing, cardiovascular fitness, and nutritional concepts. **F, W, Sp**

HE199F, G, H Health and Wholeness, 1-3 class hrs/wk, 1-3 cr. Preventive health care focusing on students' awareness of their personal involvement in developing wellness. **Offered as needed.**

HE199W Health Assessment and Wellness, 8 class hrs and 4 lab hrs/wk, 1 cr. An individualized computerized health risk and lifestyle assessment. Aids students in planning a wellness course of action. Lab fee, $9. **F, W, Sp**

HE250 Personal Health, 3 class hrs/wk, 3 cr. Relationship of attitude and behavior to an individual's health needs. Centers on individual health appraisal and values clarification. **F, W, Sp, Su**

HE251 Community Health, 3 class hrs/wk, 3 cr. A study of community health problems and related agencies, community health programs, health resources, and the relationship of personal health to community health. **Prerequisite:** HE250. **W**

HE252 First Aid, 2 class hrs and 2 lab hrs/wk, 3 cr. First aid and safety procedures for individuals, school athletic and civil defense programs. Lab fee, $2. **F, W, Sp, Su**

HE260 Emergency Medical Care-First Response, 2 class hrs and 2 lab hrs/wk, 3 cr. A 40-hour training program specifically for law enforcement officers who are usually the first persons at the scene of traffic accidents. Covers life-threatening emergencies including airway care, pulmonary and cardiopulmonary resuscitation, control of bleeding, and prevention and control of shock. Emphasizes practical aspects of emergency care required at an accident scene. Lab fee, $2. **F, W, Sp, Su**

HE261 Cardiopulmonary Resuscitation, 1 class hr/wk, 1 cr. A combination of lecture, audiovisual presentation, and mannequin practice in the principles and procedures of providing basic life support to victims of airway obstruction, respiratory arrest, and/or cardiac arrest. Successful completion leads to certification in basic life support by the American Red Cross or the Oregon Heart Association. **F, W, Sp, Su**

HE262 Cardiopulmonary Resuscitation Instruction, 1 lab hr/wk, 1 cr. Reviews basic life support, both theory and its application. Discusses instructional materials and methods of use in CPR courses. Successful completion provides instructor certification/recertification by the Oregon Heart Association. **Prerequisite:** Valid CPR card. Lab fee, $5. **W**

HE264 Childhood Emergencies, 1 class hr/wk, 1 cr. First aid procedures for children and infants. Safety, accident prevention, medicolegal, and public health aspects of day care centers. **Prerequisite:** HE252. **Sp**

HE268 Pharmacodynamics in Health Care, 3 class hrs/wk, 3 cr. Facts and principles required for safe administration of medicines in patient care situations. Provides comprehensive base for clinical application. **F, W, Sp**

History

Hst107, 108, 109 History of World Civilization, 3 class hrs/wk, 3 cr. Human cultural, social, economic, and political development of world civilizations. Hst107—from ancient times to 155 A.D.; Hst108—from 1500 to 1914; Hst109—the twentieth century. **Hst107: F, W, Su; 108: W, Sp, Su; 109: F, Sp, Su**

Hst157 History of the Middle East and Africa, 3 class hrs/wk, 3 cr. A survey of cultural, social, economic, and political development in the Middle East and Africa. **F**

Hst158 History of Latin America, 3 class hrs/wk, 3 cr. A survey of cultural, social, economic, and political development in Latin America. **W**

Hst159 History of Asia, 3 class hrs/wk, 3 cr. A survey of cultural, social, economic, and political development in Asia. **Sp**

Hst201, 202, 203 History of the United States, 3 class hrs/wk, 3 cr. A study of the cultural, economic, social and political development of the United States. Hst201—1492 to 1865; Hst202—1865 to 1920; Hst203—1920 to the present. **Hst201: F, W; 202: W, Sp; 203: Sp, Su, F**

Hst210 Futurism: Alternatives for the Future, 3 class hrs/wk, 3 cr. Examines trends of the past and present. Projects the future as a "zone of potentiality". **F**

Hst257 Introduction to Ethnic History, American Indian, 3 class hrs/wk, 3 cr. Native Americans as a minority group, its culture, heritage, humor, self-consciousness, and outlook. The history of the American Indian and his role in American history. **F**

Hst258 Introduction to Ethnic History, Black American, 3 class hrs/wk, 3 cr. The role of blacks in American history. Recounts and explains their experiences and attempts to gain meaningful first-class citizenship. **W**

Hst259 Introduction to Ethnic History, Chicano, 3 class hrs/wk, 3 cr. Traces and analyzes various aspects of Chicano life and society. Focuses on racial, cultural, educational, economic, and political development of Chicanos in the United States. **Sp**

Home Economics, see also Family Living

HEc101 Orientation to Home Economics, 2 lab hrs/wk, 1 cr. A survey of employment opportunities, training, and preparation required to qualify for various home economic jobs. Also covers new developments in related careers. **F, Sp**

HM250 Home Management and Decision Making, 3 class hrs/wk, 3 cr. Concepts of home management in various situations. Covers values, goals, standards, decision making, management processes, and use of human and material resources to meet individual and family needs. **Offered as needed.**

Human Resources

HR150 Self Awareness and Interpersonal Skills (5436), 3 class hrs/wk, 3 cr. An introduction to self-awareness, communication skills, and interpersonal skills. Primarily for human service trainees. Features individual and small group exercises to help students improve skills in communication, values clarification, problem solving, decision making, and stress management. A prerequisite for most human resource courses and practicums. **F, W, Sp**

HR154 Community Resources (5442), 3 class hrs/wk, 3 cr. Explores the history and values of community resources for people with specific disadvantages or handicaps. Acquaints students with local social service agencies and organizations and how to refer clients to them. **F, W, Sp**

HR155 Interviewing Theory and Techniques (5437), 2 class hrs and 2 lab hrs/wk, 3 cr. Theoretical background and specific interviewing techniques. Practice in interviewing situations and peer and professional observation and feedback. **W, Sp**

HR167 Gerontology (5525), 3 class hrs/wk, 3 cr. Physical, mental, and cultural dynamics of aging as a continuation of human growth. An orientation of involvement of the aging with life rather than preparation for death. **W**

HR170 Introduction to Field Experience (5450), 3 class hrs/wk, 3 cr. Background and specific skills for researching, obtaining, and succeeding in field placements. Required for first term of Human Resource program and a prerequisite for Human Resource practicum courses HR291-296. **Prerequisite:** Admission to Human Resource program. **F, W**

HR199A Issues in Human Resources Technology (PSA199A), 3 class hrs/wk, 3 cr. In-depth study of current problems and topics in human services. **Offered as needed.**

HR199B Community Participation and Leadership (PSA199B), 1 class hr/wk, 1 cr. An introduction to information and skills useful for persons interested in participating in community affairs. **Offered as needed.**

HR199D Advocacy: Rights and Responsibilities (PSA199D), 3 class hrs/wk, 3 cr. For field social service workers and those who plan to enter human service professions. **Offered as needed.**

HR199G Community Development and Community Organization (PSA199G), 3 class hrs/wk, 3 cr. Introduction to community development and organization. Focuses on community analysis, participation, integration of communities, and development of self-help, skills, and techniques necessary to work with/in communities. **Offered as needed**

HR199H Counseling the Older Adult (PSA199H), 3 class hrs/wk, 3 cr. Communication, counseling and basic information regarding older adults. For human services workers who provide and plan to provide services for the elderly. **Prerequisite:** HR167. **Offered as needed.**

HR199I Introduction to Residential Child Care (PSA199I), 3 class hrs/wk, 3 cr. Training for child care workers, foster parents, and persons interested in working in residential child care facilities. Development planning, developmental needs, separation, the cottage, discipline, groups and job settings. **Offered as needed.**

HR199O Sexual Victimization of Children (PSA199O), 3 class hrs/wk, 3 cr. Sexual victimization of children within and outside a family. Scope of the problem, identification of child victims, professional responses to victims and their families, and strategies for intervention. **Offered as needed.**

HR260 Group Dynamics (5438), 3 class hrs/wk, 3 cr. Introduction to theory of small group behavior and skills in working with groups. Includes styles of group leadership, roles played by various group members, and supervisor-subordinate relationships. **W, Sp**

HR264 Major Models of Personality (5440), 3 class hrs/wk, 3 cr. Survey of major models of personality. For students interested in human service work. Discusses various models and theories, psychological assessment, and diagnostic labels. **F**

HR265 Intervention Strategies (5441), 3 class hrs/wk, 3 cr. Second of a two-term sequence on intervention strategies for social service workers. Includes theory and practice in behavioristic, rational emotive, humanistic, social, and holistic counseling techniques. **Prerequisite:** HR264. **W, Sp**

HR291-6 Practicum: Human Resources Technology (5443-8), 3-8 lab hrs/wk, 3-8 cr. On-site clinical and community experience with human service organizations plus seminars on integrating field and classroom experiences. **Prerequisite:** HR170. **F, W, Sp (Su as needed)**

Independent Studies

IS248A-E Independent Studies, variable hrs and cr. Faculty supervised individualized study in areas not covered by courses currently offered. May involve resource persons in the community. **Offered as needed.**

Insurance

Ins054 Regulations/Law (Oregon Insurance Code) (2226), 2 class hrs/wk, 2 cr. A study of Oregon revised statutes pertaining to insurance with special emphasis on agents and adjuster practices, fair trade practices, and consumer protection. **Prerequisite:** One course in life and health and property and casualty. **Sp**

Ins056 Risk Management Analysis (2231), 3 class hrs/wk, 3 cr. Operations of various types of businesses to determine what hazards exists and how to treat them best. Includes a case study of a small business risk management as a term project. **Prerequisite:** Ins063. **Sp**

Ins057 Life Insurance Law and Mathematics (9541), (CLU-HS302) 4 class hrs/wk, 4 cr. Legal aspects of contract formation, policy provisions, assignments, ownership rights, creditor rights, beneficiary designations, disposition of life insurance proceeds and settlement options. Covers mathematics of insurance such as probability concepts, premiums, policy reserves, non-forfeiture values, and surplus and dividends. **W**

Ins058 Insurance Principles-Life and Health (2343), 3 class hrs/wk, 3 cr. Basic theory, policy structure, pricing structure, and applications of life and health insurance for students entering the insurance industry or wanting consumer education. Covers rate making, cost analysis, and uses of various life and health contracts. **Prerequisite:** BA241. **Sp**

Ins059 Insurance Occupational Survey Seminar (2344), 1 class hr/wk, 1 cr. Explores specific insurance occupations. Practicing professionals as guest speakers. Includes field trips. **F**

Ins061 Insurance-IIA 21 (2342), 4 class hrs/wk, 4 cr. General principles of insurance, including concept of risk, its place in economics, methods of treating risk, and essentials of an insurable risk. Introduction to insurance contracts and legal concepts which underlie them. **Prerequisite:** BA241. **Offered as needed.**

Ins062 Insurance-IIA 22 (2120), 4 class hrs/wk, 4 cr. Discusses coverages, policy provisions, and concepts common to property insurance. Includes standard fire policies, extended coverage endorsements, dwelling and contents forms, building and contents forms, crime policies, business interruption forms, and bailees' customer policies, and property coverages provided by multiple-line contracts. **Prerequisite:** Ins061. **Offered as needed.**

Ins063 Insurance-IIA 23 (2121), 4 class hrs/wk, 4 cr. Coverages, policy provision, and concepts peculiar to casualty, surety and multiple-line contracts. Includes family automobile policies, workers' compensation and employers' liability policies, owners' and tenants' liability policies, comprehensive general liability policies, comprehensive personal liability coverages, life and health insurance coverages, and liability insurance aspects of mulitple-line contracts. **Prerequisite:** Ins061. **Offered as needed.**

Ins064 Property Loss Adjusting ADJ31 (2124), 4 class hrs/wk, 4 cr. Introduction to property loss adjusting, indemnity, insurable interest, co-insurance, subrogation, proximate cause, requisites of insurable risks, deductibles, valued policies, probability. Emphasizes adjustment procedures, claim analyses, reporting areas, estimations of building losses, construction costs, and adjustments of personal property losses. **Prerequisite:** BA241, Ins061. **Offered as needed.**

Ins068 Personal Lines Underwriting (9550), 4 class hrs/wk, 4 cr. Underwriting personal lines, in-depth analysis of underwriting factors, and pricing of various types of personal lines insurance. Also covers computer use, account underwriting, and producer relations. **F**

Ins071 Principles of Risk Management and Insurance-CPCU 1, 4 class hrs/wk, 4 cr. Insurance risk management concepts and framework, basic legal concepts and fundamentals of insurance contracts. **Offered as needed.**

Ins081 Economic Security and Individual Life Insurance (CLU-HS301) (9540), 4 class hrs/wk, 4 cr. Role of life and health insurance in meeting economic security needs, types of individual and special life and annuity contract, individual health insurance contracts, and mathematics of life insurance as related to premiums, reserves, non-forfeiture values, surplus, and dividends. **F**

Ins082 Life Insurance Law (CLU 302) (2242), 4 class hrs/wk, 4 cr. Legal aspect of contract formation, policy provisions, assignments, ownership rights, beneficiary designations, and disposition of life insurance proceeds. Covers probability, gross and net premiums, reserves, non-forfeiture values, surplus, and dividends. **W**

Ins083 Group Insurance and Social Insurance (CLU-HS303) (9542), 4 class hrs/wk, 4 cr. Analysis of group life and group health insurance, including products, marketing, underwriting, reinsurance, premiums and reserves. Discusses socio-economic problems related to death, old age, unemployment, and disability. **F**

Ins084 Economics (CLU-HS304) (9547), 4 class hrs/wk, 4 cr. An introduction to economics. Covers operation of mixed economy, measurement of national income, business cycles and forecasting, money, banking, monetary policy, fiscal policy/employment stabiltiy, supply/demand, competition, trust, and international trade. **W**

Ins085 Accounting and Finance (CLU-Hs305) (9546), 4 class hrs/wk 4 cr. Basic accounting principles including data accumulation systems, income measurement, valuation of assets and liabilities, and financial analysis. Accounting procedures from recording of business transactions in books of account to final preparation of financial statements. Various sources of short-term, intermediate-term, and long-term funds available to a business enterprise. **F**

Ins086 Investments and Family Financial Management (CLU-HS306) (9545), 4 class hrs/wk, 4 cr. Various aspects of investment principles and their application to family man-

agement. Includes yields, limited income securities, growth factors, analysis of financial statements, family budgeting, property insurance, mutual funds, common stocks, real estate, variable annuities and aspects of other investment media. **W**

Ins087Income Taxation (CLU-HS307) (9544), 4 class hrs/wk, 4 cr. The federal income tax system with particular reference to taxation of life insurance and annuities. Income taxation of individuals, sole proprietorships, partnerships, corporations, trusts, and estates. Includes income taxation of transactions involving annuities and life and health insurance. **F**

Ins088 Pension Planning (CLU-HS308) (9543), 4 class hrs/wk, 4 cr. Basic features of pension plans including cost factors, funding instruments, and tax considerations involved in private pensions, profit-sharing plans, and tax deferred annuities. Covers thrift and savings plans and plans for the self-employed. **W**

Ins089 Business Insurance (CLU-HS309) (9548), 4 class hrs/wk, 4 cr. Business uses of life and health insurance, including proprietorship, partnership and corporation continuation problems, and their solutions through use of buy-sell agreements properly funded to preserve and distribute business values. Includes other business uses of life and health insurance, such as key man insurance, nonqualified deferred compensation plans, and split-dollar plans. **F**

Ins090 Estate Planning and Taxation (CLU-HS310) (9549), 4 class hrs/wk, 4 cr. Estate and tax planning, emphasizing the nature, valuation, disposition, administration, and taxation of property. The use of revocable and irrevocable trusts, testamentary trusts, life insurance, powers of appointment, wills, lifetime gifts, and marital deductions. The role of life insurance in minimizing financial problems of estate owners. **Offered as needed.**

Journalism

J215 Publications Lab, 4 lab hrs/wk, 2 cr. Practical application of reporting skills, photojournalism, and production principles through work on the student newspaper. **Prerequisite:** J224 or consent of instructor. **F, W, Sp**

J216 Newswriting, 3 class hrs/wk, 3 cr. Gathering and processing news. Includes lead format, straight news style, editorials, and some feature writing. Considerable time devoted to writing. **Prerequisite:** Knowledge of typing. **W, Sp**

J224 Introduction to Journalism, 3 class hrs/wk, 3 cr. A survey of the press with emphasis on newspaper operations in the United States. Includes history, reporting responsibilities, journalism ethics, and law. **F, W, Sp**

J225 Advertising/Public Relations, 3 class hrs/wk, 3 cr. Communications and production aspects of advertising and public relations. Criticism and analysis combined with preparation of materials and campaigns. **W**

J226 Layout/Production, 3 class hrs/wk, 3 cr. Newspaper management in relation to production and editing procedures. Includes printing processes, page layout, style, and headline writing. **Sp**

Library Education

LEd051 Building and Using a Library Catalog (9537), 3 class hrs/wk, 3 cr. Theory and practice in organizing library materials and using library catalogs. **Prerequisite:** Library employees or library experience. **Offered as needed.**

LEd052 Basic Reference (9538), 3 lab hrs/wk, 3 cr. Introduction to basic reference sources and theory of reference services, with special emphasis on reference interviews. For library employees. **Offered as needed.**

LEd053 Materials Selection (9535A), 3 class hrs/wk, 3 cr. How to select materials in different subject areas for small and medium-size libraries. Includes philosophy of selection, selection tools, weeding programs, and selection of materials by subject and type. **Prerequisite:** Library employees or library experience or training or consent of instructor. **Offered as needed.**

LEd054 Children's Services and Literature (9535), 3 class hrs/wk, 3 cr. Children's and young adult literature and services and their history and development. Includes selection tools and criteria, types of materials, materials and program planning for different age levels and special groups. **Prerequisite:** Library experience or training. **Offered as needed.**

LEd055 Government Documents/Oregoniana (9536), 3 class hrs/wk, 3 cr. Selection, acquisition, organization, and use of state, local, and federal documents. Emphasizes use of census materials, government-produced maps, and OrDocs (a classification scheme for Oregon state publications). Includes information on location and content of Oregon historical records and major bibliographic guides to Oregon materials and authors. **Prerequisite:** Library experience or training. **Offered as needed.**

LEd056 Library Administration (9534), 3 class hrs/wk, 3 cr. Basic areas of administration relevant to most library situations. Includes the community and its needs, program development, general management, personnel management, and special needs. **Prerequisite:** Library employees or library experience or training. **Offered as needed.**

Machine Technology

Mch050 Introduction to Machine Mechanics (4600), 3 class hrs and 9 lab hrs/1wk, 1 cr. A survey of mechanical trades careers and employment prospects for individual interest in the trades. For high school students and other interested persons. **Su**

Mch053 Manufacturing Processes (6606), 2 class hrs and 3 lab hrs/wk, 3 cr. Manufacturing materials and fundamental types of manufacturing methods used in cold working processes. Lectures, demonstrations, and practical applications to familiarize students with various types of machine tools, tooling, measuring, inspection procedures. Introduces automation and information on modern practices of numerical control for machine tools. Lab fee, $8. **W**

Mch056 Machine Shop I (4802), 2 class hrs and 3 lab hrs/wk, 3 cr. Basic machine shop operations including principles and operations of basic machine tools, measuring tools, layout tools, drill press (sensitive), grinder, saws, lathes, and milling machine. Lab fee, $8. **F, W**

Mch057 Machine Shop II (4804), 2 class hrs and 3 lab hrs/wk, 3 cr. A continuation of Mch056. Includes machine tool processes, machine set up and machining operations, radial drill press, lathe, milling machine, and surface grinder. **Prerequisite:** Mch056 or consent of trades department director. Lab fee, $8. **W**

Mch058 Machine Shop Operations Lab (4805), 3 lab hrs/wk, 1 cr. A supplement to existing lab hours for first-year machine shop students, providing practical application of knowledge and skills learned in previous and current machine subjects. Includes technical instruction on specific machinery. Lab fee, $10. **F, W, Sp**

Mch058A Machine Shop Operations II (4805A), 6 lab hrs/wk, 2 cr. Skill development for machine shop students. **Prerequisite:** Mch061, current enrollment in Machine Technology program or approval of lead instructor. **F, W, Sp**

Mch060 Introduction to Machine Mechanics-Special Services (4601), 3 class hrs and 9 lab hrs/1 wk, 1 cr. A survey of mechanical trades and employment prospect for counselors, handicapped, and rehabilitation advisors. **Su**

Mch061 Machine Tool Processes I (4807), 2 class hrs and 6 lab hrs/wk, 4 cr. Basic machine shop operations, introducing principles and operations of basic machine tools and procedures. Includes hand tools, measuring tools, layout tools, drill press (sensitive), grinders, saws, lathes, and milling machines. Lab fee, $15. **F, W, Sp**

Mch062 Shop Safety (4253), 1 class hr/wk, 1 cr. Principles of industrial safety. Includes use of films and case studies to develop awareness of hazards and positive attitudes toward prevention of accidents. **F, W, Sp**

Mch063 Shop Drawing and Layout I (4810), 2 class hrs and 6 lab hrs/wk, 3 cr. First of two courses in development, interpretation, and use of mechanical drawings and shop sketches. Combines fundamentals of mechanical drawing, sketching with blueprint reading and layout principles, tools, and practices. Drawing techniques geometric construction, selection of views, section and auxiliary views, dimensioning, print reading, and shop layout problems. Lab fee, $5. **F, W, Sp**

Mch067 Machine Tool Processes II (4808), 2 class hrs and 6 lab hrs/wk, 4 cr. A continuation of Mch061. Machine setup and operation of basic tools and procedures including radial drill press, lathe, milling machine, and surface grinder. **Prerequisite:** Mch061, Mch063, or consent of lead instructor. Lab fee, $15. **F, W, Sp**

Mch068 Shop Drawings and Layout II (4811), 1 class hr and 3 lab hrs/wk 2 cr. A continuation of Mch063. Further development of mechanical drawing and geometric construction applied to print reading and layout problems. Discusses limitations of general shop equipment. **Prerequisite:** Mch063 or consent of lead instructor. Lab fee, $5. **F, W, Sp**

Mch070 Introduction to Machine Mechanics - Non-Traditional (4602), 3 class hrs and 9 lab hrs/1 wk, 1 cr. A survey of mechanical trades careers and employment prospects particularly for women. **Su**

Mch071 Machine Tool Processes III (4809), 2 class hrs and 9 lab hrs/wk, 5 cr. A continuation of Mch067. Introduces production methods, inspection, and quality control. Includes metal spraying and job shop repair projects to increase understanding of common industrial practices in the use of carbide cutting tools. Emphasizes habits and attitudes as they relate to productivity, general housekeeping, tool care, safety, and regard for fellow workers. **Prerequisite:** Mch067, third term standing in machine shop program or consent of lead instructor. Lab fee, $15. **F, W, Sp**

Mch072 Industrial Materials and Processes (4170), 2 class hrs and 4 lab hrs/wk, 3 cr. Introduction to materials used by modern industry to manufacture industrial products. Covers ferrous and non-ferrous metals, nonmetalic materials, alloys, and exotic metals. Includes processes and methods of using materials, material identification and recognition, introduction to metallurgy, and heat treating. **Prerequisites:** Mch056, Mch061, or consent of lead instructor. Lab fee, $10. **F, W, Sp**

Mch073 Machine Shop Problems (4820), 3 class hrs/wk, 3 cr. Applied mathematics in solving typical machine shop problems. Includes powers and roots of numbers, segments of circles, transposition and various formulae, practical trigonometry, geometrical figures, tapers, tolerances and allowances, gearing problems, and bearing fits. **Prerequisites:** Math053, Mch071 or consent of lead instructor. **F**

Mch076 Machine Shop Practices (4841), 3 class hrs and 9 lab hrs/wk, 6 cr. Working conditions of typical machine shops and short-run production techniques. Skill in machine repair. Emphasizes work habits, attitudes, shop safety, housekeeping, and tool care. **Prerequisite:** Mch071, Mch072 or consent of lead instructor. **F**

Mch077 Mechanical Systems (4171), 3 class hrs and 3 lab hrs/wk, 4 cr. An introduction to transfer of power methods used by industry and industrial products relating to basic laws of physics. Emphasizes general types of mechanical equipment used, purpose of components, equipment maintenance requirements, and terminology of electrical components. **Prerequisites:** Ph052, Math053 or consent of lead instructor. Lab fee, $5. **F**

Mch078 Hydraulic and Pneumatic Systems (4173), 2 class hrs and 3 lab hrs/wk, 3cr. Fundamental principles of hydraulic and pneumatic systems. Includes study of basic components of hydraulic and pneumatic systems, how they combine to build up various circuits, ultimate use of these circuits, and factors considered in the selection, installation, and maintenance of hydraulic and pneumatic systems. **Prerequisite:** Math051 or consent of lead instructor. Lab fee, $5. **W**

Mch081 Advanced Lathe Practices (4833), 2 class hrs and 6 lab hrs/wk, 4 cr. Advanced lathe operations: including turning, internal boring, internal and external threading, and taper turning. Emphasizes workholding devices and tooling for precision machining. Discusses tracer and turret lathe applications. **Prerequisite:** Mch071 or consent of lead instructor. Lab fee, $10. **W**

Mch082 Advanced Milling Machine Practices (4837), 2 class hrs and 4 lab hrs/wk, 3 cr. Advanced milling operations including rotary, table work, dividing head work, indexing gear cutting, terminology, boring and cutter sharpening. Emphasizes production set ups and precision machining. **Prerequisite:** Mch071 or consent of lead instructor. Lab fee, $10. **W**

Mch083 Metal Fabrication and Finishing (4174), 2 class hrs and 6 lab hrs/wk 4 cr. Production sequence of a completed part or machine from fabrication and assembly to heat treating and final finishing. Emphasizes finishing processes such as heat treating, grinding, hard surfacing, hard chroming, and metal spraying. **Prerequisites:** Mch071, Mch072, Wld077, or consent of lead instructor. Lab fee, $10. **W**

Mch088 Hydraulic and Pneumatic Systems II (4176), 2 class hrs and 3 lab hrs/wk, 3 cr. A continuation of Mch078. Emphasizes applications of electrical controls and mechanical control in circuits. **Prerequisite:** Mch078 or consent of lead instructor. Lab fee, $5. **W**

Mch091 Job Machining Practices (4845), 4 class hrs and 12 lab hrs/wk, 8 cr. Advanced job shop. Emphasizes quality of finished products and production, time study, and general estimating of repair jobs and small production runs. **Prerequisite:** Mch076 or consent of lead instructor. Lab fee, $15. **Sp**

Mch092 Tool and Fixture Design and Application (4847), 2 class hrs and 7 lab hrs/wk, 4 cr. Design and application of machine tools and fixtures. Includes drill jigs, special work holding devices, indexing work holders templates for form turning. **Prerequisite:** Mch076 or consent of lead instructor. Lab fee, $10. **Sp**

Mch093 Machine Shop Automation (4824), 2 class hrs and 1 lab hr/wk, 2 cr. Use and application of computer and numerical controls to machine tools. Introduces various machine tool languages and programming techniques. **Prerequisite:** Mch073, Mch071 or consent of lead instructor. Lab fee, $5. **Sp**

Mch097 Employer-Employee Relations (4500), 3 class hrs/wk, 3 cr. Working relations between employers and employees. Discusses employment trends, hours and working conditions, roles played by labor and management, and laws covering both labor and management. **Sp**

Mch280 Cooperative Work Experience, see Agr280.

Management, see Business Administration

Mathematics

Math09A Basic Operation of Whole Numbers (Mth9A), 5 lab hrs/wk, 1 cr. Fundamental mathematics—addition, subtraction, multiplication, and division of whole numbers. **F, W, Sp, Su**

Math09B Basic Operation of Fractional Numbers (Mth9B), 5 lab hrs/wk, 1 cr. Fundamental mathematics—addition, subtraction, multiplication, and division of fractions. **F, W, Sp, Su**

Math09C Basic Operation of Decimals (Mth9C), 5 lab hrs/wk, 1 cr. Fundamental mathematics—decimals. **F, W, Sp, Su**

Math051 Basic Mathematics (4200), 4 class hrs/wk, 3 cr. Basic mathematics. Includes fundamentals of addition, subtraction, multiplication, and division in problems involving use of whole numbers, fractions, decimals, percentages, and geometric measurements. Emphasizes analysis and solution of problems encountered in vocational fields. **Prerequisite:** Proficiency with whole number operations. **F, W, Sp, Su**

Math052 Introduction to Algebra and Geometry (4202), 4 class hrs/wk, 3 cr. Introduces practical basic algebraic and geometric techniques and applications. Includes signed numbers, elements of algebra, equations and formulas, ratio and proportion, geometric figures, geometric measures, and their occupational applications. **Prerequisite:** Math051 or consent of instructor. **F, W, Sp**

Math053 Introduction to Trigonometry with Geometry (4204), 4 class hrs/wk, 3 cr. Introduces further geometric techniques and basic trigonometry. Covers the Pythagorean theorem, similar triangles, right triangle trigonometry, some oblique triangle trigonometry, and their occupational applications. **Prerequisite:** Math052 **W, Sp**

Math061 Business Mathematics (4201), 3 class hrs/wk, 3 cr. A continuation and practical application of Math051. Includes mathematics of payroll, depreciation, insurance, taxes, dividends, and inventory. **Prerequisite:** Math051 or consent of instructor. **F, W, Sp, Su**

Math062 Applied Business Math (6918), 3 class hrs/wk, 3 cr. Applications of arithmetic to business and commerce. Includes insurance, depreciation, taxes, stocks and bonds. **Prerequisite:** Math061 **W, Sp**

Math 081 Technical Mathematics I (6261), 4 class hrs/wk, 4 cr. Basic algebraic operations. Includes monomials and polynomials, linear equations and systems of equations, quadratic equations, set-up and solutions of story problems, graphs and slope of linear equations, and basic right triangle trigonometry. **Prerequisite:** Grade of B or better in Math051 or Mth010. **F, W, Sp**

Math082 Technical Mathematics II (6262), 4 class hrs/wk, 4 cr. Definitions of trigonometric functions and relationships, solutions of right and oblique triangle problems, powers and radicals, complex numbers and vectors, log function and computations, algebraic fractions, factoring, and solution of fractional equations. **Prerequisite:** Math081. **F, W, Sp**

Math083 Technical Mathematics III (6266), 4 class hrs/wk, 4 cr. Applied technical mathematics involving use of calculus. Covers plane analytical geometry differentiation, integration, and differentiation and integration of transcendental functions. **Prerequisite:** Math082. **W, Sp**

Mth010 Beginning Algebra, 5 class hrs/wk, 4 cr. For students who have not had high school algebra and before they enroll in Mth095. Reviews arithmetic operations and properties of real numbers, introduces linear equations, factoring, inequalities, algebraic fractions, exponents, and graphs. **F, W, Sp, Su**

Mth020 Applied Geometry, 1 class hr/wk, 1 cr. Individualized course which students may start and complete at any time during a term. Basic concepts of points, lines, planes, angles, triangles, congruence of triangles, different polygons, similarity from an intuitive point of view and problems involving these concepts. **Prerequisite:** Completion with C or higher of one year of high school algebra or Mth010 or consent of instructor. **F, W, Sp**

Mth021 Applied Geometry, 1 class hr/wk, 1 cr. Individualized course which student may start and complete any time during a term. Basic concepts of perimeter, circumference, arc length, areas of polygons and circles, surface area of solids, volume of various solids, and problems involving these figures. **Prerequisite:** Completion with C or higher of one year of high school algebra or Mth010 or consent of instructor. **F, W, Sp**

Mth022 Applied Geometry, 1 class hr/wk, 1 cr. Individualized course which students may start and complete at any time during a term. Use of protractor, straight edge, and compass to construct and copy various figures while learning terms and techniques of constructions. Introduces basic concepts of analytic geometry using applied problems. **Prerequisite:** Completion with C or higher of one year of high school algebra or Mth010 or consent of instructor. **F, W, Sp**

Mth023 Applied Trigonometry, 3 class hrs/wk, 1 cr. Individualized competency-based course which students may start and complete at any time during a term. Trigonometry definitions and various applications of ratios: sin, cos, tan, sec, csc, and triangles. **Prerequisite:** Mth010, Mth020, and Mth021, with grade of C or higher or consent of instructor. **F, W, Sp, Su**

Mth024 Applied Trigonometry, 1 class hr/wk, 1 cr. Individualized, open-entry/open exit, competency-based course students may begin or complete any time during a term. Covers solution of oblique triangles, radian measurement, vectors, and trigonometry ratios of all angles. **Prerequisite:** Mth023 with a grade of C or higher or consent of instructor. **F, W, Sp, Su**

Mth095 Intermediate Algebra, 5 class hrs/wk, 4 cr. Fundamental laws of algebra with real numbers, linear equations in one and two variables, linear inequalities, factoring, algebraic fractions, systems of linear equations, exponents, radicals, quadratic equations and inequalities, and word problems. **Prerequisite:** Completion with grade of C or higher of one year of high school algebra and one year of geometry or Mth010 or consent of instructor. **F, W, Sp, Su**

Mth101 College Algebra, 4 class hrs/wk, 4 cr. Polynomials in algebraic expressions with equations and inequalities of various degree. An introduction to the concepts of relations and functions with real numbers and graphs in both two and three dimensions. Polynomial, rational, exponential and logarithmic functions, an introduction to complex numbers, matrices, determinates, sequences, and series. **Prerequisite:** Completion with grade of C or higher of two years of high school algebra and one year of geometry or Mth095 or consent of instructor. **F, W, Sp Su**

Mth102 Trigonometry, 4 class hrs/wk, 4 cr. A continuation of the study of functions. Circular, trigonometric and inverse functions, complex numbers, vectors and graphing with polar coordinates. **Prerequisite:** Mth101 with grade of C or higher or consent of instructor. **F, W, Sp, Su**

Mth103 Probability and Statistics, 4 class hrs/wk, 4 cr. Basic concepts of statistics and probability, inferential methods and assessment of reliabilities of numerical information related to all occupational fields. Application of formula to problem solving is stressed over the mathematical theory. **Prerequisite:** Mth101 with grade of C or higher or consent of instructor. **F, Sp**

Mth106 Elementary Calculus, 4 class hrs/wk, 4 cr. An intuitive approach to differential and integral calculus. Emphasizes techniques of calculus in applied problem solving. Designed primarily for business, social science, life science or liberal arts students. **Prerequisite:** Mth101 with grade of C or higher or consent of instructor. **W, Sp, Su**

Mth110 Analytic Geometry, 4 class hrs/wk, 4 cr. Coordinate geometry includes forms for straight line equations, conic sections, loci, translation and rotation of axis, polar coordinates, and vectors. **Prerequisite:** Mth102 or consent of instructor. **W, Sp, Su**

Mth133B Introduction to Programming, BASIC, 3 class hrs and 1 lab hr/wk, 3 cr. Computer programming using the BASIC language. Analyzing problems, writing and entering programs, locating and correcting errors, and completing successful runs. Each student submits programs to cover each programming concept, but specific application may be chosen from his/her own interest area. No previous knowledge of computers expected. **Prerequisite:** Mth010 or Math052 or consent of instructor. Lab fee, $2. **F, W, Sp**

Mth191, 192, 193 Mathematics for Elementary Teachers, 3 class hrs/wk, 3 cr. A three-term sequence which partially fulfills mathematical requirements for students majoring in elementary education. Emphasizes concepts, terminology, and skills encountered in K through 9 elementary school mathematics curriculum. Primarily a study of subject matter, but several concepts are presented through concrete examples using manipulative materials, games, and activities. Mth193 includes field experience. Must be taken in sequence or by consent of instructor. **Prerequisite:** Proficiency with whole numbers. **Mth191: F; 192: W; 193: Sp**

Mth199 Math with Pocket Calculator, 2 class hrs/wk, 2 cr. Aids students in selecting and purchasing pocket calculators best suited for their individual needs. Includes how to use the calculator as an effective educational tool for basic mathematical operations, exponentials, logarithms, and trigonometry; applications of practical mathematics using pocket calculator skills appropriate to development of concepts for further study in mathematics. **Prerequisite:** Mth010 with grade of C or higher or consent of instructor. **W, Sp**

Mth200 Calculus with Analytic Geometry, 4 class hrs/wk, 4 cr. First term undergraduate calculus covering limits, continuity, derivatives, applications of derivatives, and integration. **Prerequisite:** Mth101 and Mth102 with grade of C or higher or consent of instructor. **F, Sp**

Mth201 Calculus with Analytic Geometry, 4 class hrs/wk, 4 cr. A continuation of Mth200. Covers applications of definite integrals, exponential and logarithmic functions, trigonometric and hyperbolic functions, and techniques of integration. **Prerequisite:** Mth200 with grade of C or higher or consent of instructor. **F, W**

Mth202 Calculus with Analytic Geometry, 4 class hrs/wk, 4 cr. A continuation of Mth201. Covers polar form of equations, conic sections, indeterminate forms, infinite series. **Prerequisite:** Mth201 with grade of C or higher or consent of instructor. **W, Sp**

Mth203 Calculus with Analytic Geometry, 4 class hrs/wk, 4 cr. Multivariable calculus including vectors, partial derivatives, multiple integrals, and their applications. **Prerequisite:** Mth202 with grade of C or higher or consent of instructor. **Sp**

Mechanical Design, see Drafting Technology

Medical Assisting

Med051 Medical Terminology I (5600), 3 class hrs/wk, 3 cr. Analysis of anatomical terms, roots, prefixes, and suffixes and Greek and Latin verbs and adjectives in building a medical vocabulary. Examines representative anatomical structures, diseases, operations, tumors, and descriptive terms through analysis of words. **F, W, Sp**

Med052 Medical Terminology II (5610), 3 class hrs/wk, 3 cr. Continuation of Med051. **Prerequisite:** Med051. **F, W, Sp**

Med053 Medical Terminology III (5612), 3 class hrs/wk, 3 cr. Language development in medicine, pharmacology, oncology (cancer medicine), radiology, nuclear medicine, medical laboratory, and psychiatry. **Prerequisites:** Med051 and Med052. **Sp**

Med054 Medical Office Procedures (5604), 3 class hrs and 3 lab hrs/wk, 4 cr. Techniques and procedures used in medical offices: reception of patients, use of telephone, appointment making, filing and processing insurance forms. **Prerequisites:** Med056 and Med061. Lab fee, $5. **W**

Med055 Medical Law and Ethics (5611), 3 class hrs/wk, 3 cr. How laws affect the practice of medicine and codes of behavior set by the medical profession for itself. **Prerequisite:** High school graduate or equivalent. **F, Sp**

Med056 Medical Assisting, Basic Procedures (5602), 2 class hrs and 2 lab hrs/wk, 3 cr. Survey of requirements and qualities for success as a medical assistant. Techniques, methods, and procedures include assisting physician with examinations, medical and surgical aseptic procedures, observing vital signs, care of equipment, supplies, drugs, and solutions. **Prerequisite:** High school graduate or equivalent. Lab fee, $5. **F**

Med057 Medical Assisting, Advanced Procedures (5606), 3 class hrs and 2 lab hrs/wk, 4 cr. Theory and practice of basic diagnostic and treatment procedures. Collection, preparation, and preservation of specimens for diagnostic studies. **Prerequisites:** Med051, Med056 or consent of allied health director. Lab fee, $5. **W**

Med060 Medical Transcription (5603), 1 class hr and 2 lab hrs/wk, 2 cr. Introduction to techniques of transcribing from recorded voice to typewriter. Operation of a transcriber and transcribing mailable copy with speed and efficiency. Includes transcribing letters, case histories, pathological reports, and other medical records. **Prerequisite:** Med051 and basic knowledge of typing techniques, minimum typing speed of approximately 40 words per minute. Lab fee, $3. W

Med061 Health Information Systems Procedures I (5620), 2 class hrs and 4 lab hrs/wk, 4 cr. Knowledge, skills and practice required of ward clerks and employees in related entry occupations. Includes admitting and bed control; patient charts and transcription of physicians' orders; admissions, preoperative and postoperative procedures; management techniques and human relations; and confidentiality of medical records. **Prerequisite:** Enrollment in Medical Assisting program. Lab fee, $5. F

Med062 Health Information Systems Procedures II (5621), 3 class hrs and 4 lab hrs/wk, 5 cr. Health information systems and necessary skills for health clerical functions. Includes health care delivery systems, health information, medical records, and health record processing (medical transcription) of various medical reports. Entry level skills for health record and medical transcriptionist students and additional skills required for ward clerks. **Prerequisite:** Med061. Lab fee, $5. W

Med063 Health Records Processing (5622), 20 lab hrs/wk, 5 cr. Processing medical reports and records, including basic histories and physicals, discharge summaries, operative reports, medical specialty reports, and radiology, pathology, and autopsy reports. Problem situations and experiences in a variety of offices and settings. Evaluation of students by demonstration of proficiency in typing, transcription speed, accuracy, and organization/processing of health record information. **Prerequisites:** Med061, Med062, Bi072, Med052 and typing speed of 50 wpm in a five-minute timing with less than six errors. Lab fee, $5. Sp

Med064 Introduction to Medical Science (5605), 3 class hrs/wk, 3 cr. A survey of disease conditions, types of treatment, and medical surgical specialties. **Prerequisite:** Med051. Sp

Med078 Medical Practice Seminar (5000), 1 class hr/wk, 1 cr. Study of relationship of clinical practicum in medical office settings with theoretical course content. Applies to career and personal goals. **Prerequisite:** Concurrent enrollment in Med079. Sp

Med079 Medical Office Practice (5609), 16 lab hrs/wk, 6 cr. Practice of medical assisting methods, procedures, and techniques in clinical situations. **Prerequisites:** Med051, 056, 052. W, Sp

Med081 Legal Concerns in a Medical Office Practice (5629), 1 class hr/wk, 1 cr. Legal aspects of theory and principles of behavior relating to medical assistants and physicians. Special emphasis on release of information, consents for care, principles of confidentiality in health care data, collection and release of patient information. **Prerequisite:** Med055 or current employment in a medical office. **Offered as needed.**

Med280 Cooperative Work Experience, see Agr280.

Multidisciplinary Studies

MS250 Oceans: Our Continuing Frontier, 3 class hrs/wk, 3 cr. The relationship between the sea and art and literature, science, mythology, resources, politics, war, and people. The relationship of Oregonians to the sea. W

MS251, 252, 253 The Art of Discovery, Science, Philosophy and Society, 3 class hrs/wk, 3 cr. Discoveries which have had special impact on world views, values, and behavior. How scientific, philosophic, and social enterprises relate. Integrates disciplinary insights to help students discover how various disciplines are integrated. **MS251: F; 252: W; 253: Sp**

Music

Mus111 Music Theory I, Term I, 3 class hrs/wk, 3 cr. Techniques for perceiving and identifying smaller patterns in music. A basic understanding of music theory is helpful. F

Mus112 Music Theory I, Term II, 3 class hrs/wk, 3 cr. How to identify basic elements of music as they occur in smaller patterns of music. Also emphasizes the part larger groupings play in organization of music structure. **Prerequisite:** Mus111. W

Mus113 Music Theory I, Term III, 3 class hrs/wk, 3 cr. Exercises in ear-training, dictation, sight-singing, and keyboard harmony to help students focus on configurations, groupings, and characteristics of music that generate organization, resulting in continuity of form. **Prerequisite:** Mus112. Sp

Mus134 Chorus, 1 class hr/wk, 1 cr. Classroom instruction for voice students. Class activity centers on choir practice and performance. No more than six hours credit may be earned in Mus134. F, W, Sp

Mus201 Introduction to Music and Its Literature, 3 class hrs/wk, 3 cr. A comprehensive study of music literature and history. How tones combine to create musical elements of melody, harmony and rhythm, and how these relationships and organization of these elements apply to compositional styles and form. Combines a study of musical elements in art forms and ethnic musicology with writing melodic contours. F

Mus202 Introduction to Music and Its Literature, 3 class hrs/wk, 3 cr. The evolution of music and the impact of culture, social philosophies, religion, and politics and on the development of music, visual arts, and literature. W

Mus203 Introduction to Music and Its Literature, 3 class hrs/wk, 3 cr. A study of the philosophies and attitudes of the 20th century composers who revolted against traditional approaches to music composition and created new styles and forms. Traces American music from the serial technique composing of Schoenberg to the popular music of the 70's. Sp

Mus299 Mexican and Mexican-American Music—History, Style and Appreciation, 3 class hrs/wk, 3 cr. A survey of Mexican and Mexican-American music from its origins with the aborigines. Includes Mexican folk music, the influence of Spanish conquistadors, serious music composed in this century, popular folk music, rock, and jazz-rock. **Offered as needed.**

MuP100 Piano, 1 class hr/wk, 1 cr. Individual instruction in fundamentals of music theory incorporated into basic piano playing skills. Open to students of all levels and interests. Lab fee, $40. F, W, Sp

MuP174 Voice, 1 class hr/wk, 1 cr. Individual instruction in fundamentals of theory, melodic contouring and phrasing, vocal production, and body mechanics incorporated into basic singing skills and music reading. Open to students at all levels and interests. Lab fee, $40. F, W, Sp

Nursing

Nur010 Health Care Skills (HS010), 2 lab hrs/wk, 1 cr. One-to-one and small group tutoring for students in health-related programs who want to develop skills for working with patients and clients. How to observe, interview, and communicate with patients, and first aid and emergency medical techniques. **Prerequisite:** Enrollment in dental assisting, emergency medical technology, medical office assisting, or nursing program. **Offered as needed.**

Nur050 Obstetrical Nursing (9464), 2 class hrs and 1 lab hr/wk, 3 cr. Basic elements of parent and fetal responses to childbirth. Includes anatomy and physiology of reproduction, ante partum, birth, post partum, complications, fetal development, and care of the newborn. For practicing nurses and students. **Prerequisite:** Registered Nurse or generic nursing student. **Offered as needed.**

Nur106 Nursing, 5 class hrs and 15 lab hrs/wk, 10 cr. Concepts, skills, and values basic to contemporary nursing. Assessing and meeting physio-psycho-social health needs. Includes nursing skills, communications, nursing as an interpersonal helping process, growth and development, and beginning skills in problem solving. Correlates theory, skill development, and clinical experiences in nursing. **Prerequisite:** Enrollment in the nursing program. Lab fee, $10. F

Nur108 Nursing, 5 class hrs and 15 lab hrs/wk, 10 cr. Concepts, skills, and values basic to nursing practices. Problem solving in growth and developmental patterns in maternal-child-family health and effects of hospitalization on infants and adolescents with physical and mental illness. **Prerequisite:** Nur106 or equivalent. Lab fee, $10. W, Sp

Nur109 Nursing, 5 class hrs and 15 lab hrs/wk, 10 cr. The role of licensed practical nurses in assessment, planning, intervention, and evaluation of nursing situations in common conditions of physical and mental illness. **Prerequisite:** Nur106, 108 or equivalent. Lab fee, $10. W, Sp

Nur111 LPN Re-entry, 5 class hrs and 15 lab hrs/wk, 10 cr. For inactive licensed practical nurses returning to practice. Reviews basic concepts, skills, and values of nursing and problem solving skills helpful in meeting needs of clients in various nursing situations. Emphasizes independent study. **Prerequisite:** Eligibility for practical nurse licensure and proof of application for, or possession of, a limited license from the Oregon State Board of Nursing. Lab fee, $5. **Offered as needed.**

Nur114 Nursing Care of the Elderly, 3 class hrs/wk, 3 cr. For licensed practical nurses and registered nurses who care for elderly people. Emphasizes basic and emerging concepts related to aging and gerontological nursing. Stresses assessing health needs of the elderly, planning patient care, implementing those plans, and evaluating care. **Offered as needed.**

Nur204A, B, C Nurse at Work, 1 class hr/wk, 1 cr. A study of trends and practices in nursing. Includes organizational and structural elements and socio-cultural factors influencing the role of new graduates as members of a nursing and health team. **Prerequisite:** Enrollment in second year of Nursing program. **F, W, Sp**

Nur205 Nursing, 3 class hrs and 9 lab hrs/wk, 6 cr. The role of associate degree nurses. Focuses on pathophysiological aspects of mental health and the female reproductive system. Introduces fluids and electrolytes. **Prerequisites:** Nur106, 108, 109 or equivalent. **Su**

Nur206 Nursing, 5 class hrs and 15 lab hrs/wk, 10 cr. Nursing care of patients. Covers hospitalization, surgery, infection and/or infectious diseases, neoplastic disease, and disturbances of the respiratory, cardiovascular, integumentary, gastrointestinal, urinary and male reproductive systems. Emphasizes nursing at the associate degree level, and the role of nurses as members of a nursing team. **Prerequisite:** Nur106, 108, 109, 205 or equivalent. **F**

Nur208 Nursing, 5 class hrs and 15 lab hrs/wk, 10 cr. A continuation of Nur206. Focuses on the role of managing nursing care for a group of patients. Introduces team leader concepts. Nursing care of patients experiencing disturbances of the nervous, musculo-skeletal, endocrine and sensory systems. **Prerequisite:** Nur106, 108, 109, 205, 206. **W**

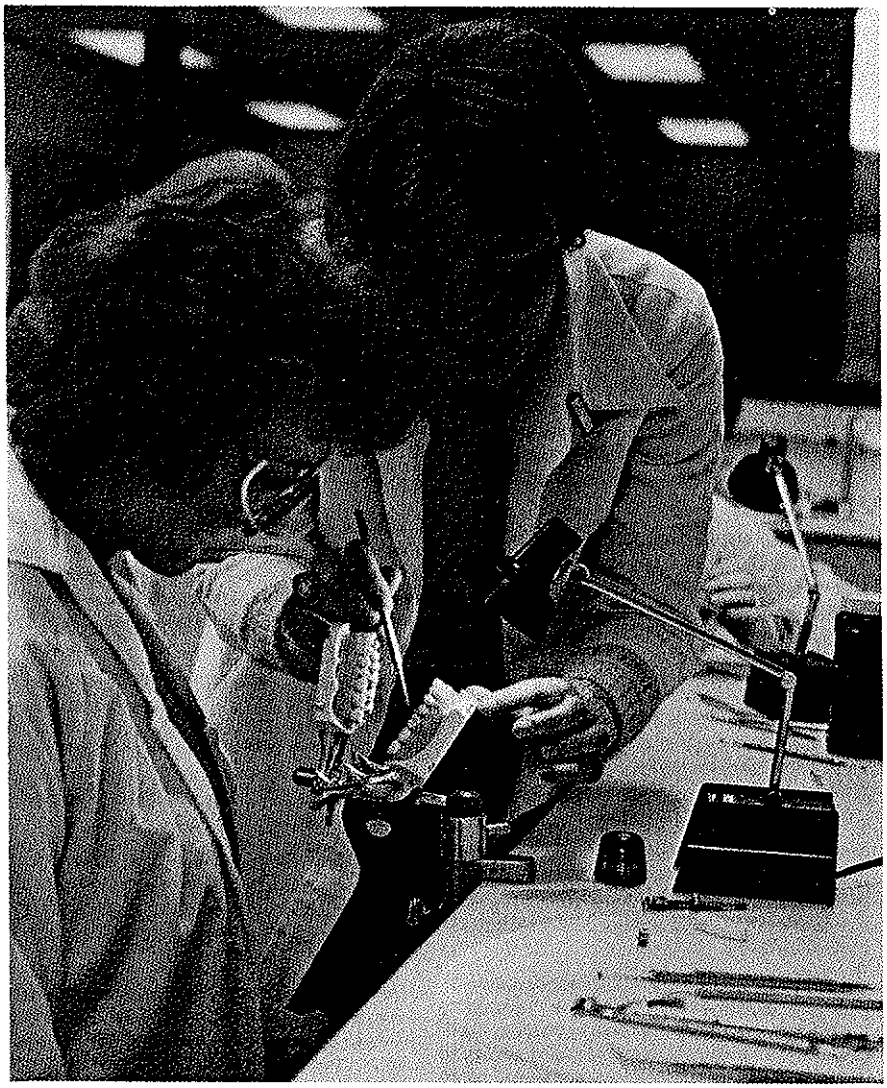
Nur209 Nursing, 5 class hrs and 18 lab hrs/wk, 11 cr. A continuation of Nur208. Focuses on management of nursing care team in acute care settings. Nursing care of patients with critical disturbances of any or all body systems. **Prerequisites:** Nur106, 108, 109, 205, 206, 208. **Sp**

Nur211 RN Re-entry Program, 5 class hrs and 15 lab hrs/wk, 10 cr. For inactive registered nurses returning to practice. Reviews concepts, skills, and values of contemporary nursing. Problem solving approach to management of nursing care in a variety of situations. **Prerequisite:** Eligibility for registered nurse licensure and proof of application for, or possession of, a limited license from the Oregon State Board of Nursing. Lab fee, $5. **Offered as needed.**

Nur250 Introduction to the Operating Room, 5 class hrs and 12 lab hrs/wk, 8 cr. Fundamentals of operating room nursing practices including circulating, scrubbing, sterilization, patient support, surgical techniques, and instrumentation. **Prerequisite:** registered nurse or licensed practical nurse or eligibility for application in licensure or current enrollment in an accredited nursing educational program. Lab fee, $5. **Offered as needed.**

Nur280 Cooperative Work Experience, see Agr280.

Nur298A Holistic Health Care for Nurses, 3 class hrs/wk, 3 cr. Basic knowledge and skills in holistic health for maintenance and promotion of health. Includes therapeutic touch, biofeedback and relaxation. **Prerequisite:** licensed practical nurse, registered nurse, or enrollment in a generic nursing program. **Offered as needed.**



Nur298B The Aging Process, 3 class hrs/wk, 3 cr. Focuses on affective, cognitive, and physical changes which occur in aging and their influence on nursing care. **Prerequisite:** licensed practical nurse, registered nurse, or current enrollment in a generic nursing program or other health disciplines and permission of instructor. **Offered as needed.**

Nur298C Care of the Terminally Ill, 3 class hrs and 3 lab hrs/wk, 4 cr. Expanded knowledge and skills in holistic health care of terminally ill patients and their families. **Prerequisite:** licensed practical nurse, registered nurse, current enrollment in generic nursing program or permission of instructor. **Offered as needed.**

Nur298D Geriatric Pharmacology, 3 class hrs/wk, 3 cr. Focuses on medications for the elderly, basic drug information to assist the elderly with self-medication, and/or direct administration of medications. **Prerequisite:** allied health practitioner, licensed practical nurse, registered nurse or enrollment in an allied health program. **W**

Nur298E Introduction to Physical Assessment for Nurses, 3 class hrs and 1 lab hr/wk, 4 cr. Basic skills in health screening of adults. Includes health histories and screening examinations by inspection, palpation, percussion and auscultation. **Prerequisite:** registered nurse or enrollment in an RN generic program. Lab fee, $5. **Offered as needed.**

Oceanography

Oc133 Introduction to Oceanography, 3 class hrs/wk, 3 cr. Discusses four main areas of oceanography: chemical, physical, geological, and biological. Covers plate tectonics, ocean circulation, physical properties of seawater, chemical cycles, marine ecosystems, sedimentation, land and sea cycles, and climate effects. **Offered as needed.**

Office Administration

OA050 Civil Service Exam Preparation I (2720), 5 class hrs/wk, 3 cr. Review of subject areas included in state civil service examinations: English grammar, spelling, and fundamentals of mathematics including basic functions, fractions, percentages and business formulas, and practical applications. **F, W, Sp, Su**

OA051 Civil Service Exam Preparation II (2721), 1 class hr and 4 lab hrs/wk, 3 cr. A continuation of OA050. Includes additional English grammar, punctuation, and business math. Open entry/exit with individualized instruction. **Prerequisite:** OA050. **F, W, Sp, Su**

OA052 Civil Service Exam Preparation III (2722), 1 class hr and 4 lab hrs/wk, 3 cr. Additional information for civil service positions. Includes use of reference manuals, preparation of application forms, personal data sheets, thank-you notes, letter styles, and vocabulary building. **Prerequisite:** OA056A, B, C. **F, W, Sp, Su**

OA053 Individualized Filing (2515I), 3 class hrs and 2 lab hrs/wk, 3 cr. Open-entry, open-exit. Students advance at their own rates, based on their schedules and abilities. Includes filing methods, rules, and retrieval of records. **F, W, Sp, Su**

OA054A Introduction to Machine Transcription (2662A), 2 lab hrs/wk, 1 cr. Operation of transcribing machines. Techniques of transcribing from recorded dictation. Stresses accuracy. **Prerequisite:** OA056A, B, C. **F, W, Sp, Su**

OA054B Introduction to Machine Transcription (2662B), 2 lab hrs/wk, 1 cr. Transcription of letters, memos, and reports from recorded dictation. Stresses accuracy. Students progress at individual rates. **Prerequisite:** OA054A. **F, W, Sp, Su**

OA055A Introduction to Calculators (2658A), 1 class hr and 2 lab hrs/wk, 1 cr. Use of electronic display and electronic printing calculators to solve mathematical problems. **F, W, Sp, Su**

OA055B Introduction to Calculators (2658B), 1 class hr and 2 lab hrs/wk, 1 cr. A continuation of OA055A to increase speed and accuracy on calculators, and to develop ability to use calculators to solve mathematical problems in business offices. **F, W, Sp, Su**

OA056A Typing I (2606A), 2 lab hrs/wk, 1 cr. Alphabetic keys. 25 net words per minute for three minutes = A. Identification and operation of major typewriter parts. **F, W, Sp, Su**

OA056B Typing I (2606B), 2 lab hrs/wk, 1 cr. Number and symbol keys. 30 net words per minute for three minutes = A. How to center vertically and horizontally and type tables and memoranda. **Prerequisite:** OA056A. **F, W, Sp, Su**

OA056C Typing I (2606C), 2 lab hrs/wk, 1 cr. 40 net words per minute for three minutes = A. How to type letters, envelopes, and manuscripts and make corrections and carbon copies. **Prerequisite:** OA056B. **F, W, Sp, Su**

OA057A Typing II (2607A), 2 lab hrs/wk, 1 cr. Three styles of tables and two letter styles and their variation. 40 net words per minute for three minutes = A. **Prerequisite:** OA056A, B, C. **F, W, Sp, Su**

OA057B Typing II (2607B), 2 lab hrs/wk, 1 cr. Book manuscript, itinerary, and reports. 45 net words per minute for three minutes = A. **Prerequisite:** OA057A. **F, W, Sp, Su**

OA057C Typing II (2607C), 2 lab hrs/wk, 1 cr. Four new letter styles, three different stationery styles, and typing on printed forms. 50 net words per minute for three minutes = A. **Prerequisite:** OA057B. **F, W, Sp, Su**

OA058A Shorthand Refresher I (SS110A), 2 class hrs/wk, 2 cr. A review of basic Gregg shorthand theory including brief forms. Practice reading and writing from shorthand plates. Some dictation from previewed material. For persons with a background of shorthand theory. Requires a specified level of achievement. **F, W, Sp, Su**

OA058B Shorthand Refresher II (SS110B), 2 class hrs/wk, 2 cr. A refresher course in Gregg shorthand for persons with a knowledge of theory and some ability to take dictation. Students progress at their own rate. Grades based on progress. **F, W, Sp, Su**

OA061 Introduction to Calculators (2658), 1 class hr and 2 lab hrs/wk, 2 cr. Use of electronic display and electronic printing calculators in the solution of simple business and mathematical problems. Lab fee, $5. **F, W, Sp, Su**

OA062 Reprographics (2661), 3 class hrs/wk, 3 cr. Copy duplication methods used in business offices and small organizations. Emphasizes preparing layout, running equipment, and comparing methods and machines. Lab fee, $6. **W, Sp**

OA068 Word Processing: CRT Operation and Text Editing (2716), 1 class hr and 4 lab hrs/wk, 3 cr. Individualized instruction course in Cathode Ray Tube (CRT) automatic typewriter operation, and training in revising and formatting on the CRT. **Prerequisite:** OA200. Lab fee, $4. **F, W, Sp, Su**

OA069 Word Processing: Advanced CRT Operation (2717), 2 class hrs and 3 lab hrs/wk, 3 cr. Instruction in Cathode Ray Tube (CRT) glossary and advanced features. **Prerequisite:** OA068. Lab fee, $4. **W, Sp**

OA072 Briefhand II (2701), 2 class hrs and 3 lab hrs/wk, 3 cr. Continuation of OA114. Emphasizes speed development. Introduces some transcription techniques. **Prerequisite:** OA114 or consent of instructor. Lab fee, $2. **W, Sp**

OA073 Briefhand III (2702), 2 class hrs and 3 lab hrs/wk, 3 cr. Continuation of OA072. Emphasizes transcription skills, review of theory, and speed building. **Prerequisite:** OA072 or consent of instructor. Lab fee, $2. **Sp**

OA075 Legal Terminology and Documents (2713), 3 class hrs/wk, 3 cr. Introduction to legal terminology for legal secretaries and a survey of documents commonly encountered by legal secretaries in private law offices. **W**

OA076 Legal Office Procedures (2714), 2 class hrs and 2 lab hrs/wk, 3 cr. Duties of legal secretaries, including maintaining professional relations with employers and clients, keeping financial records, filing legal documents, knowing when and how to use court and non-court documents and procedures, learning to set priorities, making decisions, and integrating office skills. **Prerequisites:** OA116, OA121, OA075. Lab fee, $2. **F**

OA077 Legal Machine Transcription I (2711), 3 class hrs/wk, 3 cr. Preparing and typing legal briefs, forms, transcripts, documents, and correspondence from machine dictation. **Prerequisites:** OA075 and OA225. Lab fee, $2. **F, W, Sp**

OA078 Legal Machine Transcription II (2712), 3 class hrs/wk, 3 cr. Continuation of OA077 emphasizing increased skill in typing and handling of materials to produce legal documents. **Prerequisite:** OA077. Lab fee, $2. **F, W, Sp**

OA080 Medical Machine Transcription (2569), 1 class hr and 4 lab hrs/wk, 3 cr. Typing from a transcribing machine to increase speed, accuracy, and understanding of medical case histories, clinical reports, and medical correspondence. **Prerequisite:** OA225 and typing speed of 40 words per minute. Lab fee, $6. **F**

OA081 Medical Machine Transcription II (2570), 3 class hrs/wk, 3 cr. A continuation of OA080 in the study and production of medical communication materials. **Prerequisite:** OA080 or consent of instructor. Lab fee, $6. **W**

OA082 Medical Secretary Practicum (2566), 2 class hrs and 2 lab hrs/wk, 3 cr. Techniques, methods, and procedures used in medical offices. Reception of patients, appointment making, filing and processing medical and health insurance records and forms. **Prerequisite:** OA116 or consent of instructor. Lab fee, $2. **W**

OA083 Medical Office Management (5607), 3 class hrs/wk, 3 cr. Basic accounting procedures and practical experience working with financial records and account terminology. Includes double-entry system, accounting for cash, payroll accounting, end-of-period worksheets, financial statements, and a medical office practice set. **Prerequisite:** Math061 or consent of instructor. **Sp**

OA084 Business English Fundamentals (2673), 3 class hrs/wk, 3 cr. Basic English skills including spelling, grammar, business vocabulary, dictionary use, and writing clear, concise sentences. **Prerequisite:** Wr040 or equivalent. **F, W, Sp, Su**

OA085 Business Writing (2674), 3 class hrs/wk, 3 cr. Emphasizes clear and concise expression of ideas in paragraph form. Special emphasis on punctuation and continuation of grammar, spelling, and business vocabulary. **F, W, Sp, Su**

OA086 Written Communication, 3 class hrs/wk, 3 cr. Review of grammar and punctuation. Emphasizes vocabulary usage, spelling, sentence revision, and paragraph development. **Offered as needed.**

OA087 Oral Communications (9503), 3 class hrs/wk, 3 cr. Communications systems in organizations and communications skills required of supervisors. Includes extensive skill practice exercises. **F, W, Sp**

OA088 The Receptionist (2580), 3 class hrs/wk, 3 cr. The significance of receptionists and their vital place in a company. Instruction and training for would-be office receptionists. Recommended as a first-year course only. **F, Sp**

OA089 Filing (2515), 3 class hrs/wk, 3 cr. Basic principles used in the systematic planning of the classification, arrangement, storage, and retrieval of business papers. Emphasizes practice in alphabetic, numeric, subject, and geographic filing systems of correspondence and non-correspondence papers. **F, W**

OA090 Bookkeeping (2652), 3 class hrs/wk, 3 cr. Basic accounting principles and procedures. Provides familiarity with financial records and accounting terminology. Includes

processing techniques for handling information, special journals, controlling accounts, and work sheets used in preparing account statements. **W**

OA091 Payroll Procedures (2648), 3 class hrs/wk, 3 cr. An examination of federal and state laws which determine what records need to be kept on each employee's earnings, what reports need to be prepared for state and federal governments, and what guidelines need to be followed in assigning pay scales to employees. Practice in computing, paying, and charging wages and salaries. **Sp**

OA093 CPS Examination Review (2590), 2 class hrs/wk, 2 cr. A series of review sessions on secretarial work emphasizing judgment, understanding, and administrative ability. Includes updating skills, knowledge, and techniques covered in six portions of the qualifying examination for certification as a professional secretary. **Prerequisite:** Minimum of 75 college credits of secretarial training, or three years secretarial office experience or consent of instructor. **Sp**

OA101 Office Careers Survey (SS101), 1 class hr/wk, 1 cr. The organization and climate of business and professional offices, including investigation of various job possibilities available to persons with secretarial/clerical training. Includes guest speakers and field trips to provide current picture of office occupations. **F, W, Sp**

OA111 Shorthand I (SS111), 2 class hrs and 3 lab hrs/wk, 3 cr. A beginning course in Gregg series 90 jubilee shorthand. A study of simplified principles to enable students to take simple dictation and transcribe in longhand early in the course. Students with previous training may complete these requirements in short periods of time. Also includes proper recording habits, spelling, vocabulary, and punctuation. **Prerequisite:** Enrollment in OA121 or typing skill. Lab fee, $2. **F, Sp**

OA112 Stenography II (SS112), 2 class hrs and 3 lab hrs/wk, 3 cr. A continuation and review of shorthand theory plus transcription, including special forms, abbreviated forms, punctuation, and expanded vocabulary. Emphasizes shorthand writing from dictation to increase speed and skill, and transcribing from shorthand notes on a typewriter. **Prerequisite:** OA111 or equivalent. Lab fee, $2. **W**

OA113 Stenography III (SS113), 2 class hrs and 3 lab hrs/wk, 3 cr. Expanding recall of shorthand theory, developing dictation and transcription skills, and producing mailable letters. Advanced vocabulary, phrase building, word building principles based on basic Gregg shorthand principles learned in OA111 and OA112. **Prerequisite:** OA112 or equivalent. Lab fee, $2. **Sp**

OA114 Briefhand I (SS114), 2 class hrs and 3 lab hrs/wk, 3 cr. A simplified note-taking system. Beneficial for students for vocational application, for taking lecture notes, and for personal use. Lab fee, $2. **F, W, Sp**

OA116 Office Procedures (2641), 2 class hrs and 2 lab hrs/wk, 3 cr. An introduction to administrative support activities. Includes telephone usage, mailing and shipping, meetings and conferences, appointments, and meeting the public. Also working with arrangements, word processing, sources of business information, job careers in offices, and job interviewing. Includes simulated job activities. **Prerequisite:** OA121A, B, C. Lab fee, $3. **F, W, Sp, Su**

OA121 Typing I (SS121), 1 class hr and 4 lab hrs/wk, 3 cr. Basic parts of the IBM Selectric typewriter, typewriter keyboard touch system, and basic centering techniques. Minimum typing speed: 30 words per minute. Studies basic letter, table, and manuscript formats. Students with previous typing experience may complete this course in minimum time or take a challenge examination. Lab fee, $6. **F, W, Sp, Su**

OA121A, B, C Typing I (SS121A, SS121B, SS121C), 1 class hr and 4 lab hrs/wk, 3 cr. Students may register for 1, 2, or 3 credits. OA121A: basic parts of IBM Selectric typewriter and typewriter keyboard touch system. Minimum typing speed: 15 words per minute. OA121B: basic centering techniques, corrections and carbons, composition at the typewriter, and business letters. Minimum typing speed: 20 words per minute. OA121C: tables and manuscripts. Minimum typing speed: 30 words per minute. Students with previous typing experience may complete this course in a short time or take a challenge examination. Lab fee, $2, each course. **F, W, Sp, Su**

OA122 Typing II (SS122), 1 class hr and 4 lab hrs/wk, 3 cr. A continuation of OA121. Emphasizes increasing typing speed and accuracy to at least 40 words per minute for a grade of C. Typing letters in several styles, paper sizes, printed forms, and tables. **Prerequisite:** OA121 or equivalent plus entry speed of 30 words per minute. Lab fee, $6. **F, W, Sp, Su**

OA122A Typing II, Intermediate I (SS122A), 2 lab hrs/wk, 1 cr. Presentation of three styles of tables and two letter styles and their variations. A = 40 net words per minute for three minutes with four errors allowed. **Prerequisite:** OA121 or OA121C or consent of instructor. Lab fee, $2. **F, W, Sp, Su**

OA122B Typing II, Intermediate II (SS122B), 2 lab hrs/wk, 1 cr. Presentation of book manuscripts, itineraries, and reports. A = 40 net words per minute for three minutes with four errors allowed. **Prerequisite:** OA122A or consent of instructor. Lab fee, $2. **F, W, Sp, Su**

OA122C Typing II, Intermediate III (SS122C), 2 lab hrs/wk, 1 cr. Presentation of four new letter styles, three stationery styles, and typing on printed forms. A = 50 net words per minute for three minutes with three errors allowed. **Prerequisite:** OA122B. Lab fee, $2. **F, W, Sp, Su**

OA123 Typing III (SS123), 1 class hr and 4 lab hrs/wk, 3 cr. Corrective and acceleration drills to develop minimum typing speed of 50 words per minute. Emphasizes various papers used in business offices. **Prerequisite:** OA122 or equivalent or consent of instructor. Lab fee, $6. **F, W, Sp**

OA124 Typing, Skill Building (2709), 1 class hr and 4 lab hrs/wk, 3 cr. Emphasizes improving typing skills (keyboard proficiency, typing speed, and accuracy). For students who have learned the keyboard and wish to raise their skill levels for advanced work or who want to improve their skills. **Prerequisite:** OA121A, B, C or consent of instructor. Lab fee, $6. **W, Sp**

OA199A Office Update (SS199A), 1 class hr/wk, 1 cr. A series of one-hour training sessions on basic clerical topics and current trends in office tasks to improve job performances and review office procedures. **Prerequisite:** Background of employment in office occupations or consent of instructor. **F, W**

OA200 Introduction to Word Processing (2715), 2 class hrs and 2 lab hrs/wk, 3 cr. Introduces various types of correspondence support activities, primarily keyboarding of magnetic editing typewriters. Explains organization of typical word processing centers as correspondence support and administrative support functions. **Prerequisite:** OA121 and OA122 or consent of instructor. Lab fee, $3. **F, W, Sp**

OA211 Shorthand IV (SS211), 2 class hrs and 2 lab hrs/wk, 3 cr. A continuation of shorthand development. Emphasizes office-related transcription skills and improvement of shorthand vocabulary and dictation speeds. **Prerequisite:** OA113 or consent of instructor. Lab fee, $2. **F**

OA212 Shorthand V (SS212), 2 class hrs and 2 lab hrs/wk, 3 cr. A continuation of OA211. **Prerequisite:** OA211 or equivalent. Lab fee, $2. **W**

OA213 Shorthand VI (SS213), 2 class hrs and 2 lab hrs/wk, 3 cr. A continuation of OA212. **Prerequisite:** OA212 or equivalent. Lab fee, $2. **Sp**

OA220 Business Machines (BA217), 1 class hr and 3 lab hrs/wk, 3 cr. Operation of electronic display and electronic printing calculators. Solving business problems with calculators. **Prerequisite:** OA061. Lab fee, $4. **F, Sp**

OA225 Machine Transcription I (2663), 1 class hr and 4 lab hrs/wk, 3 cr. For students with no previous experience in transcribing letters and memos from recorded dictation. Covers parts and functions of dictating machines, care of belts, increasing skills in listening, understanding, correct spelling, punctuation, grammar. Emphasizes transcribing mailable copy with speed and efficiency. Lab fee, $4. **F, W, Sp**

OA226 Machine Transcription II (2667), 1 class hr and 4 lab hrs/wk, 3 cr. A continuation of OA225, to increase students' transcribing efficiency from machine dictated materials. Stresses improving English skills, typing speed, and accuracy to usable, on-the-job levels. **Prerequisite:** OA225 or consent of instructor. Lab fee, $4. **W, Sp**

OA256 Secretarial Practicum (2710), 2 class hrs and 2 lab hrs/wk, 3 cr. Advanced course in secretarial procedures using all previous training plus other areas of specialization. Stresses decision making and quality production. **Prerequisite:** OA116 and second-year standing or consent of instructor. Lab fee, $2. **F**

OA280 Cooperative Work Experience, see Agr280.

Oriental Languages

OL051 First Year Chinese, Term I, 4 class hrs/wk, 4 cr. Introduction to spoken and written Mandarin Chinese. **F**

OL052 First Year Chinese, Term II, 4 class hrs/wk, 4 cr. Introduces Chinese characters. Emphasizes speaking and reading with drills in grammatical patterns and illustrative sentences. Stresses vocabulary building. **Prerequisite:** OL051. **W**

Philosophy

Phl201 Problems of Philosophy, 3 class hrs/wk, 3 cr. Major philosophical traditions. Discusses self-identity and human communication. F

Phl202 Problems of Philosophy, 3 class hrs/wk, 3 cr. A survey of religious, metaphysical, ethical, political, and aesthetic issues of historic and contemporary interest. Discusses critical interpretation and perspectives. W

Phl203 Elementary Ethics, 3 class hrs/wk, 3 cr. Objectives and rules for human behavior as important tools for decision making. Applies diverse goals and means to such current issues as war/peace, sexuality, drugs, political issues, and religious beliefs. Sp

Physical Education

PE131 Introduction to Physical Education, 3 class hrs/wk, 3 cr. Professional orientation, basic philosophy and objectives, professional opportunities and qualifications.

PE180 Women's Varsity Sports, 3 class hrs wk, 1 cr.

PE180BN Basketball-Women's Varsity, 3 lab hrs/wk, 1 cr.

PE180TQ Track and Field-Women's Varsity, 3 lab hrs/wk, 1 cr.

PE180VN Women's Volleyball-Varsity, 3 lab hrs/wk, 1 cr.

PE185 Co-ed Physical Education Classes, 3 lab hrs/wk, 1 cr.

PE185AA Dance Fitness-Beginning, 3 lab hrs/wk, 1 cr. Development of techniques through exercises to enhance flexibility, agility, strength, and coordination through different dance styles and movements.

PE185AB Dance Fitness-Intermediate, 3 lab hrs/wk, 1 cr. See PE185AA

PE185AC Dance Fitness-Advanced, 3 lab hrs/wk, 1 cr. See PE185AA

PE185AJ Archery-Beginning, 3 lab hrs/wk, 1 cr. Fundamentals of archery including safety, history, care and use of equipment, basic rules, skills techniques, and target shooting. Emphasizes self-testing and improvement. Class competition in regulation and novelty shoots. Intermediate and advanced courses include more emphasis on shooting perfection, self-improvement, analysis of errors. Lab fee, $3.

PE185AK Archery-Intermediate, 3 lab hrs/wk, 1 cr. See PE185AJ. Lab fee, $3.

PE185AL Archery-Advanced, 3 lab hrs/wk, 1 cr. See PE185AJ. Lab fee, $3.

PE185BA Badminton-Beginning, 3 lab hrs/wk, 1 cr. Fundamental skills of serving, clears, drop, smash, backhand, singles and doubles play, terminology, and rules. Intermediate includes practice in the overhead clear. Advanced covers perfection of techniques, skills, and strategies through sophisticated drills and routines. Competitive play patterns emphasized. Lab fee, $3.

PE185BB Badminton-Intermediate, 3 lab hrs/wk, 1 cr. See PE185BA. Lab fee, $3.

PE185BC Badminton-Advanced, 3 lab hrs/wk, 1 cr. See PE185BA. Lab fee, $3.

PE185BE Baseball-Beginning, 3 lab hrs/wk, 1 cr. Fundamental techniques of offensive and defensive play, rules, strategy, and team play.

PE185BF Baseball-Intermediate, 3 lab hrs/wk, 1 cr. See PE185BE.

PE185BG Baseball-Advanced, 3 lab hrs/wk, 1 cr. See PE185BE.

PE185BJ Basketball-Beginning, 3 lab hrs/wk, 1 cr. Fundamental skills, techniques of offensive and defensive play, rules, team play, and competition. Increased skills and strategy levels in intermediate and advanced.

PE185BK Basketball-Intermediate, 3 lab hrs/wk, 1 cr. See PE185BJ.

PE185BL Basketball-Advanced, 3 lab hrs/wk, 1 cr. See PE185BJ.

PE185BO Basketball Officiating, 2 class hrs and 1 lab hr/wk, 1 cr. Officiating techiques for beginning and novice referees. Includes rules, mechanics, conditioning, and job opportunities.

PE185BP Billiards-Beginning, 3 lab hrs/wk, 1 cr. Fundamental skills, strategy, application of rules, etiquette, and competitive play.

PE185BQ Billiards-Intermediate, 3 lab hrs/wk, 1 cr. See PE185BP.

PE185BR Billiards-Advanced, 3 lab hrs/wk, 1 cr. See PE185BP.

PE185BS Body Building-Beginning, 3 lab hrs/wk, 1 cr. Exercises to increase muscularity, muscular definition, and muscular power to develop physique.

PE185BT Body Building-Intermediate, 3 lab hrs/wk, 1 cr. See PE185BS.

PE185BU Body Building-Advanced, 3 lab hrs/wk, 1 cr. See PE185BS.

PE185BV Bowling-Beginning, 3 lab hrs/wk, 1 cr. Beginning: basic fundamentals, techniques, rules, scoring, and social etiquette. Intermediate: perfection of straight ball delivery, introduction to hook and curve ball delivery, and tournament plan.

PE185BW Bowling-Intermediate, 3 lab hrs/wk, 1 cr. See PE185BV.

PE185BX Bowling-Advanced, 3 lab hrs/wk, 1 cr. See PE185BV.

PE185CA Conditioning-Beginning, 3 lab hrs/wk, 1 cr. Individual program. Includes circuit training and use of apparatus. Concern given to cardiovascular development and special exercise programs for all ages.

PE185CB Conditioning-Intermediate, 3 lab hrs/wk, 1 cr. See PE185CA.

PE185CC Conditioning-Advanced, 3 lab hrs/wk, 1 cr. See PE185CA.

PE185CD Correctives-Beginning, 3 lab hrs/wk, 1 cr. Exercise programs of fitness or physical therapy for students with physical injuries, disabilities or handicaps. Offered many times daily.

PE185CE Correctives-Intermediate, 3 lab hrs/wk, 1 cr. See PE185CD.

PE185CF Correctives-Advanced, 3 lab hrs/wk, 1 cr. See PE185CD.

PE185CM Cross Country Skiing-Beginning, 3 lab hrs/wk, 1 cr. Fundamental skills and techniques, types of equipment, first aid, orienteering, survival, leadership, and route finding.

PE185CN Cross Country Skiing - Intermediate, 3 lab hrs/wk, 1 cr. See PE185CM.

PE185CP Cross Country Skiing-Advanced, 3 lab hrs/wk, 1 cr. See PE185CM.

PE185CR Dance Choreography-Beginning, 3 lab hrs/wk, 1 cr. Movement and improvisation techniques to develop elements of time, space, shape, and energy.

PE185CS Dance Choreography-Intermediate, 3 lab hrs/wk, 1 cr. See PE185CR.

PE185CT Dance Choreography-Advanced, 3 lab hrs/wk, 1 cr. See PE185CR.

PE185CW Cycling-Beginning, 3 lab hrs/wk, 1 cr. Cycling techniques including proper bicycle fitting, correct pedaling, safety, maintenance, and touring. Special emphasis on physical fitness.

PE185CX Cycling-Intermediate, 3 lab hrs/wk, 1 cr. See PE185CW.

PE185CY Cycling-Advanced, 3 lab hrs/wk, 1 cr. See PE185CW.

PE185DE Dance, Folk-Beginning, 3 lab hrs/wk, 1 cr. Basic steps, skills, and training in dances reflecting cultural tradition. Schottische, polka, etc.

PE185DF Dance, Folk-Intermediate, 3 lab hrs/wk, 1 cr. See PE185DE.

PE185DG Dance, Folk-Advanced, 3 lab hrs/wk, 1 cr. See PE185DE.

PE185DJ Dance, Modern-Beginning, 3 lab hrs/wk, 1 cr. Fundamentals of movement, techniques, and use of axial and motor movements.

PE185DK Dance, Modern-Intermediate, 3 class hrs/wk, 1 cr. See PE185DJ.

PE185DL Dance, Modern-Advanced, 3 lab hrs/wk, 1 cr. See PE185DJ.

PE185DR Dance, Social-Beginning, 3 lab hrs/wk, 1 cr. Basic dance steps of the fox trot, tango, rhumba, mambo, and current popular dances.

PE185DS Dance, Social-Intermediate, 3 lab hrs/wk, 1 cr. See PE185DR.

PE185DT Dance, Social-Advanced, 3 lab hrs/wk, 1 cr. See PE185DR.

PE185DV Dance, Square-Beginning, 3 lab hrs/wk, 1 cr. Basic square dance formation, singing calls, simple figures, and invigorating activity.

PE185DW Dance, Square-Intermediate, 3 lab hrs/wk, 1 cr. See PE185DV.

PE185DX Dance, Square-Advanced, 3 lab hrs/wk, 1 cr. See PE185DV.

PE185FA Fencing-Beginning, 3 lab hrs/wk, 1 cr. Initial position, en garde, salute, lunge and recovery, basic parries, basic attack and defense movements, fencing bouts, and scoring.

PE185FB Fencing-Intermediate, 3 lab hrs/wk, 1 cr. See PE185FA.

PE185FC Fencing-Advanced, 3 lab hrs/wk, 1 cr. See PE185FA.

PE185FD Soccer-Beginning, 3 lab hrs/wk, 1 cr. Fundamental soccer skills, position play, team formations, offensive and defensive team play, and rules.

PE185FE Soccer-Intermediate, 3 lab hrs/wk, 1 cr. See PE185FD.

PE185FF Soccer-Advanced, 3 lab hrs/wk, 1 cr. See PE185FD.

PE185FJ Flycasting-Beginning, 3 lab hrs/wk, 1 cr. Flycasting techniques, target practice, fly tying, how to select a fly, how to read the water; an introduction to Oregon's outdoor environment.

PE185FK Fly Casting-Intermediate, 3 lab hrs/wk, 1 cr. See PE185FJ.

PE185FL Fly Casting-Advanced, 3 lab hrs/wk, 1 cr. See PE185FJ.

PE185FM Fitness Appreciation-Beginning, 3 lab hrs/wk, 1 cr. Circuit training, jogging, running, and exercise programs designed for lifetime fitness. Instruction in diet and nutrition as aids to physical and mental fitness.

PE185FN Fitness Appreciation-Intermediate, 3 lab hrs/wk, 1 cr. See PE185FM.

PE185FP Fitness Appreciation-Advanced, 3 lab hrs/wk, 1 cr. See FE185FM.

PE185FQ Football-Beginning, 3 lab hrs/wk, 1 cr. Fundamentals, rules, strategies, and team play.

PE185FR Football-Intermediate, 3 lab hrs/wk, 1 cr. See PE185FQ.

PE185FS Football-Advanced, 3 lab hrs/wk, 1 cr. See PE185FQ.

PE185GJ Golf-Beginning, 3 lab hrs/wk, 1 cr. Basic fundamentals such as grip, stance, and mechanics of the swing. Use of irons, long irons, woods, and putters. Rules of the game, social etiquette, and actual playing of the game.

PE185GK Golf-Intermediate, 3 lab hrs/wk, 1 cr. See PE185GJ.

PE185GL Golf-Advanced, 3 lab hrs/wk, 1 cr. See PE185GJ.

PE185GP Gymnastics-Beginning, 3 lab hrs/wk, 1 cr. Instruction and practice of gymnastic skills. Men's events include tumbling, floor exercise, vaulting, horizontal bars, parallel bars, still rings, and side horse. Women's events include floor exercise, balance beam, vaulting, and uneven bars. Stresses conditioning exercises and mastery in routines.

PE185GQ Gymnastics-Intermediate, 3 lab hrs/wk, 1 cr. See PE185GP.

PE185GR Gymnastics-Advanced, 3 lab hrs/wk, 1 cr. See PE185GP.

PE185HA Handball-Beginning, 3 lab hrs/wk, 1 cr. Basic fundamental techniques and rules, etiquette, and singles and doubles play. Perfection of techniques, strategy, singles and doubles competition. Lab fee, $3.

PE185HB Handball-Intermediate, 3 lab hrs/wk, 1 cr. See PE185HA. Lab fee, $3.

PE185HC Handball-Advanced, 3 lab hrs/wk, 1 cr. See PE185HA. Lab fee, $3.

PE185JA Dance, Jazz-Beginning, 3 lab hrs/wk, 1 cr. Development of basic warm-ups at the barre, stretching, isolations, and floor movement with emphasis on technique, alignment, and contemporary jazz style.

PE185JB Dance, Jazz-Intermediate, 3 lab hrs/wk, 1 cr. See PE185JA.

PE185JC Dance, Jazz-Advanced, 3 lab hrs/wk, 1 cr. See PE185JA.

PE185JJ Jogging-Beginning, 3 lab hrs/wk, 1 cr. Instruction and practice in jogging techniques. Stresses development of cardiovascular endurance. Includes various systems of training. Students work according to their own abilities and physical conditions.

PE185JK Jogging-Intermediate, 3 lab hrs/wk, 1 cr. See PE185JJ.

PE185JL Jogging-Advanced, 3 lab hrs/wk, 1 cr. See PE185JJ.

PE185JQ Judo-Beginning, 3 lab hrs/wk, 1 cr. Instruction in fundamental personal defense skills, precautionary safety measures, countering attacks, etc.

PE185JR Judo-Intermediate, 3 lab hrs/wk, 1 cr. See PE185JQ.

PE185JS Judo-Advanced, 3 lab hrs/wk, 1 cr. See PE185JQ.

PE185KA Karate-Beginning, 3 lab hrs/wk, 1 cr. Fundamentals of karate including basic stances, inside and outside blocks, straight punch,rising block, kick block, front, side and back kicks, basic throws, come-alongs, and techniques of detaining and restraining subjects.

PE185KB Karate-Intermediate, 3 lab hrs/wk, 1 cr. See PE185KA.

PE185KC Karate-Advanced, 3 lab hrs/wk, 1 cr. See PE185KA.

PE185LA Dance, Ballet-Beginning, 3 lab hrs/wk, 1 cr. Basic fundamentals of the five positions at the barre. Includes development of legs, arms, torso alignment, and stretching. Center floor work covers basic turns, leaps, and combination movements to develop placement and technique.

PE185LB Dance, Ballet-Intermediate, 3 lab hrs/wk, 1 cr. See PE185LA.

PE185LC Dance, Ballet-Advanced, 3 lab hrs/wk, 1 cr. See PE185LA

PE185LJ Lifesaving, 3 lab hrs/wk, 1 cr. A wide range of elementary and advanced lifesaving skills based on a high level of correct swimming techniques and physical conditioning. Based on Red Cross senior lifesaving.

PE185PA Personal Defense-Beginning, 3 lab hrs/wk, 1 cr. Fundamental personal defense skills, precautionary measures to insure one's safety, countering attacks using various types of weapons. Development of skill levels that promote self-assurance to reduce panic.

PE185PB Personal Defense-Intermediate, 3 lab hrs/wk, 1 cr. See PE185PA.

PE185PC Personal Defense-Advanced, 3 lab hrs/wk, 1 cr. See PE185PA.

PE185PM Pistol Marksmanship-Beginning, 3 lab hrs/wk, 1 cr.

PE185PN Pistol Marksmanship-Intermediate, 3 lab hrs/wk, 1 cr.

PE185PO Pistol Marksmanship-Advanced, 3 lab hrs/wk, 1 cr.

PE185RA Racquetball-Beginning, 3 lab hrs/wk, 1 cr. Fundamentals, various shots, and strategies of singles and doubles playing.

PE185RB Racquetball-Intermediate, 3 lab hrs/wk, 1 cr. See PE185RA.

PE185RC Racquetball-Advanced, 3 lab hrs/wk, 1 cr. See PE185RA.

PE185RD Rifle Marksmanship-Beginning, 3 lab hrs/wk, 1 cr.

PE185RE Rifle Marksmanship-Intermediate, 3 lab hrs/wk, 1 cr.

PE185RF Rifle Marksmanship-Advanced, 3 lab hrs/wk, 1 cr.

PE185RG Roller Skating-Beginning, 3 lab hrs/wk, 1 cr. Fundamental skills and techniques including forward skating, backward skating, and two-foot turns.

PE185RH Roller Skating-Intermediate, 3 lab hrs/wk, 1 cr. See PE185RG.

PE185RJ Roller Skating-Advanced, 3 lab hrs/wk, 1 cr. See PE185RG.

PE185RW Running for Fitness-Beginning, 3 lab hrs/wk, 1 cr. Running and circuit training techniques designed to improve overall body condition.

PE185RX Running for Fitness-Intermediate, 3 lab hrs/wk, 1 cr. See PE185RW.

PE185RY Running for Fitness-Advanced, 3 lab hrs/wk, 1 cr. See PE185RW.

PE185SA Scuba Diving-Beginning, 3 lab hrs/wk, 1 cr. Skills and techniques necessary for proper and safe performance of underwater swimming and diving. Covers proper use and care of diving equipment, potential dangers of underwater swimming and diving, and procedures to avoid those dangers.

PE185SB Scuba Diving-Intermediate, 3 lab hrs/wk, 1 cr. See PE185SA.

PE185SC Scuba Diving-Advanced, 3 lab hrs/wk, 1 cr. See PE185SA.

PE185SD Swim for Fitness-Beginning, 3 lab hrs/wk, 1 cr. Open to students who have mastered the front and back crawl, sidestroke, breaststroke, and elementary backstroke. Develops endurance and strength.

PE185SE Swim for Fitness-Intermediate, 3 lab hrs/wk, 1 cr. See PE185SD.

PE185SF Swim for Fitness-Advanced, 3 lab hrs/wk, 1 cr. See PE185SD.

PE185SG Skiing Conditioning-Beginning, 3 lab hrs/wk, 1 cr. Preparation for winter skiing. Includes use of universal gym machine, running, soccer skills, volleyball, and coordination exercises.

PE185SH Skiing-Beginning, 3 lab hrs/wk, 1 cr. Fundamental skills and techniques including snowplow turns, traverse-stem turns, sideslip, uphill christie, beginning parallel, and parallel turn. Advanced includes free skiing, powder, phase II, etc.

PE185SJ Skiing-Intermediate, 3 lab hrs/wk, 1 cr. See PE185SH.

PE185SK Skiing-Advanced, 3 lab hrs/wk, 1 cr. See PE185SH.

PE185SL Slimnastics-Beginning, 3 lab hrs/wk, 1 cr. Calisthenics and jogging to achieve toning and total fitness. These exercises, when combined with a reduction in intake may result in loss of inches and pounds. Includes nutritional information.

PE185SM Slimnastics-Intermediate, 3 lab hrs/wk, 1 cr. See PE185SL.

PE185SN Slimnastics-Advanced, 3 lab hrs/wk, 1 cr. See PE185SL.

PE185SP Softball-Beginning, 3 lab hrs/wk, 1 cr. Fundamental skills and rules presented through participation in team play.

PE185SQ Softball-Intermediate, 3 lab hrs/wk, 1 cr. See PE185SP.

PE185SR Softball-Advanced, 3 lab hrs/wk, 1 cr. See PE185SP.

PE185SS Swimming-Beginning, 3 lab hrs/wk, 1 cr. Follows Red Cross beginner and advanced beginner programs including floating, back and prone glides, survival floating, human stroke, front crawl, elementary backstroke, jumping and diving into deep water.

PE185ST Swimming-Intermediate, 3 lab hrs/wk, 1 cr. Follows Red Cross intermediate swimming program. Includes front crawl, back crawl, side stroke, breast stroke, surface dive, underwater swim, and standing front dive. Encourages swimming for fitness. Students should master beginner skills before enrolling.

PE185SU Swimming-Advanced, 3 lab hrs/wk, 1 cr. Emphasizes swimming for fitness and improving basic skills. At the completion of this course, students should have the skills necessary to progress to senior lifesaving. Students should master intermediate skills before enrolling.

PE185SW Skiing Conditioning-Intermediate, 3 lab hrs/wk, 1 cr. See PE185SG.

PE185SX Skiing Conditioning-Advanced, 3 lab hrs/wk, 1 cr. See PE185SG.

PE185TA Table Tennis-Beginning, 3 lab hrs/wk, 1 cr. Beginning: fundamental skills including serve and practice strategy and application of rules and etiquette. Intermediate: perfection of skills and strategy in singles and doubles play. Advanced: continued practice in skills and strategy with emphasis on competitive play.

PE185TB Table Tennis-Intermediate, 3 lab hrs/wk, 1 cr. See PE185TA.

PE185TC Table Tennis-Advanced, 3 lab hrs/wk, 1 cr. See PE185TA.

PE185TF Tennis-Beginning, 3 lab hrs/wk, 1 cr. Beginning: fundamental skills including forehand, backhand, serve strategy, application of rules, and etiquette. Intermediate: perfection of skills and strategy in singles and doubles play. Advanced: continued practice in skills and strategy with emphasis on competitive play.

PE185TG Tennis-Intermediate, 3 lab hrs/wk, 1 cr. See PE185TF.

PE185TH Tennis-Advanced, 3 lab hrs/wk, 1 cr. See PE185TF.

PE185TL Track and Field-Beginning, 3 lab hrs/wk, 1 cr. Fundamentals, rules, theories, and training in track and field events.

PE185TM Track and Field-Intermediate, 3 lab hrs/wk, 1 cr. See PE185TL.

PE185TN Track and Field-Advanced, 3 lab hrs/wk, 1 cr. See PE185TL.

PE185TS Trap Shooting-Beginning, 3 lab hrs/wk, 1 cr. Safety procedures, rules, clay shooting, and advancement on qualifications.

PE185TU Trap Shooting-Intermediate, 3 lab hrs/wk, 1 cr. See PE185TS.

PE185TV Trap Shooting-Advanced, 3 lab hrs/wk, 1 cr. See PE185TS.

PE185VJ Volleyball-Beginning, 3 lab hrs/wk, 1 cr. Instruction and practice in skills, rules, and strategy through individual and team play.

PE185VK Volleyball-Intermediate, 3 lab hrs/wk, 1 cr. See PE185VJ.

PE185VL Volleyball-Advanced, 3 lab hrs/wk, 1 cr. See PE185VJ.

PE185WA Water Safety Instruction, 3 lab hrs/wk, 1 cr. Covers all phases of water safety, basic swimming strokes, related aquatic skill, diving, lifesaving skills, water safety, and teaching guidelines.

PE185WD Weight Training-Beginning, 3 lab hrs/wk, 1 cr. Fundamental safety procedures, preconditioning for weight training, and progressive resistance for lifetime physical fitness. For students of all ages.

PE185WE Weight Training-Intermediate, 3 lab hrs/wk, 1 cr. See PE185WD.

PE185WF Weight Training-Advanced, 3 lab hrs/wk, 1 cr. See PE185WD.

PE185WJ Figure Control-Beginning, 3 lab hrs/wk, 1 cr. Improve human form and function through use of universal gym machine and calisthenics. Emphasizes cardiovascular fitness through aerobic exercise.

PE185WK Figure Control-Intermediate, 3 lab hrs/wk, 1 cr. See PE185WJ.

PE185WL Figure Control-Advanced, 3 lab hrs/wk, 1 cr. See PE185WJ.

PE185YA Yoga-Beginning, 3 lab hrs/wk, 1 cr. Background, safety precautions, and values of yoga. Stretching and limbering exercises, proper breathing techniques, and exercise positions.

PE185YB Yoga-Intermediate, 3 lab hrs/wk, 1 cr. See PE185YA.

PE185YC Yoga-Advanced, 3 lab hrs/wk, 1 cr. See PE185YA.

PE190BN Basketball-Men's Varsity, 3 lab hrs/wk, 1 cr.

PE190TQ Track and Field-Men's Varsity, 3 lab hrs/wk, 1 cr.

Professional Physical Education

PE194 Professional Activities, 3 lab hrs/wk, 2 cr. Knowledge and skills of sports/activities. College transfer courses for students interested in teacher preparation programs at state four-year institutions.

PE194BY Basic Rhythms, 3 lab hrs/wk, 2 cr.

PE194FW Fundamentals of Movement, 3 lab hrs/wk, 2 cr.

PE194GR Games and Relays, 3 lab hrs/wk, 2 cr.

PE194TR Track and Field, 3 lab hrs/wk, 2 cr.

PE294 Professional Physical Education, 3 lab hrs/wk, 2 cr. Knowledge and skills of sports activities. College transfer courses for students interested in teacher preparation programs at state four-year institutions.

PE294BO-VM Basketball-Volleyball, 3 lab hrs/wk, 2 cr.

PE294TF-FD Tennis-Soccer, 3 lab hrs/wk, 2 cr.

Physics

Ph051 Practical Physics (4300), 3 class hrs and 2 lab hrs/wk, 4 cr. Practical physics for skilled workers, covering heat, light, and sound. Laboratory time provides demonstrations and experiments to help clarify principles and procedures covered in class. Lab fee, $4. **W, Sp**

Ph052 Practical Physics (4302), 3 class hrs and 2 lab hrs/wk, 4 cr. Practical physics for skilled workers covering matter, measurements, mechanics, machines, and electricity. Laboratory time provides demonstrations and experiments to help clarify principles and procedures. **Prerequisites:** Ph051, Math052 or equivalent, or consent of instructor. Lab fee, $4. **Sp**

Ph081 Applied Physics (6370), 3 class hrs and 2 lab hrs/wk, 4 cr. Fundamental principles, concepts, and applications of work, energy and power; basic machines and straight line and rotary motion. Use of vectors to analyze and solve problems. Lab fee, $4. **F, W, Sp**

PH082 Applied Physics (6371), 3 class hrs and 2 lab hrs/wk, 4 cr. Applied physics at post-high school level covering mechanics of measurement, structure of matter, heat energy, heat engines, sound, and light. Laboratory time provides demonstrations and experiments to clarify principles and procedures covered in lectures. **Prerequisite:** Ph081. Lab fee, $4. **W, Sp**

Ph201, 202, 203 General Physics, 3 class hrs and 3 lab hrs/wk, 4 cr. Mechanics, sound, heat, light, electricity, magnetism, and modern physics. Three lectures, one one-hour discussion session, one two-hour laboratory period with outside assignments. Must be taken in sequence. **Prerequisite:** Mth101. Lab fee, $6 per course. **Ph201: F; 202: W; 203: Sp**

Ph211, 212 General Physics for Engineers and Scientists, 3 class hrs and 3 lab hrs/wk, 4 cr. Fundamentals of physics for students in engineering and natural sciences. Uses the rudiments of calculus. **Prerequisites:** Mth200 and registration in Mth201. Lab fee, $6 per course. **Ph211: W; Ph212: Sp**

Political Science

PS201 American Government, 3 class hrs/wk, 3 cr. Basic concepts and principles of the American political system historically and currently. Discusses patterns of political behavior of non-governmental political institutions, e.g. political parties, interest groups. **F, W**

PS202 American Government, 3 class hrs/wk, 3 cr. A continuation of PS201, dealing with executive, legislative, and judicial branches of government. Includes a study of civil liberties and selected aspects of domestic and foreign policy as examples of interaction of governmental and non-governmental institutions in the political system **Prerequisite:** PS201 recommended, but not required. **W, Sp**

PS203 State and Local Governments, 3 class hrs/wk, 3 cr. Examines the roles of regional, state, and local governments, particularly the nature of federalism. Either PS203 or PS205 will complete the American Government sequence following PS201 and PS202. **F, Sp, Su**

PS205 International Relations, 3 class hrs/wk, 3 cr. An introduction to international politics. Deals with the nature of superpower conflict, nationalism, non-aligned nations, foreign policy; the role of multinational corporations in international decision-making, development and underdevelopment; and mechanisms of conflict resolution as related to contemporary international issues. **Sp**

PS212 Political Election Campaigning, 3 class hrs/wk, 3 cr. Introduction to election campaign techniques, processes, and strategy. **Offered as needed.**

Psychology

Psy100 Introduction to Psychology, 3 class hrs/wk, 3 cr. Application of basic concepts and methods of psychology to one's vocational and life situations. Covers motivation, learning, perception, emotion, personality, and mental health. **F, W, Sp, Su**

Psy101 Psychology of Human Relations, 3 class hrs/wk, 3 cr. Understanding interpersonal relations on the job and in everyday activities. Includes self-actualization, marriage and family relationships, social interaction, job satisfaction, and relations with supervisors and subordinates **F, W, Sp, Su**

Psy111 Processes in Living, 3 class hrs/wk, 3 cr. Self-understanding through an exploration of values, attitudes, interests, beliefs and abilities. How these personal factors influence learning, educational and vocational decision making, and interpersonal relationships. **F, W, Sp, Su**

Psy114 Career Development, Personal Perspective, 3 class hrs/wk, 3 cr. A comprehensive developmental program that provides exploratory opportunities to integrate personal, educational, and occupational elements of career development. Encourages career planning and decision making based on realistic self-knowledge and self-assessment. **F, W, Sp, Su**

Psy201 General Psychology, 3 class hrs/wk, 3 cr. The first of three introductory courses dealing with psychology as a science. Stresses the biological foundations of humans, motivation and emotion, sensation, and perception. **F, W, Su**

Psy202 General Psychology, 3 class hrs/wk, 3 cr. The second of three introductory psychology courses. Includes principles of learning, memory, cognitive man, and problem solving. **Prerequisite:** Psy201. **W, Sp, Su**

Psy203 General Psychology, 3 class hrs/wk, 3 cr. The third of three introductory courses in psychology. Includes personality theory, psychopathology and psychotherapy, development and socialization, and social psychology. **Prerequisite:** Psy201. **F, Sp, Su**

Psy206 Introduction to Social Psychology, 3 class hrs/wk, 3 cr. Problems, theories, and methods of social psychology, emphasizing diverse ways social influences alter an individual's thoughts, feelings, and actions. Examines prejudice, conformity, leadership, and aggression and how they affect such events as wars, elections, discrimination, violence, and interpersonal attraction. **Prerequisite:** Psy201 or consent of instructor. **W**

Psy246 Introduction to Industrial Psychology (Psy199), 3 class hrs/wk, 3 cr. Applied psychological concepts stressing interpersonal communication skills, work values, habits, and attitudes. **Offered as needed.**

Psy299 Growth and Development, 3 class hrs/wk, 3 cr. Human growth and development from conception through death. In-depth study of birth through middle adulthood. **F, W, Sp**

Public Administration

PA250 Introduction to Public Administration, 3 class hrs/wk, 3 cr. Survey of administrative practices of public agencies, with special emphasis on policy making in governmental organization. Includes public management, organizational theory, and behavior. **F, W, Sp**

PA255 Public Personnel Administration, 3 class hrs/wk, 3 cr. Introduction to principles, concepts, and decisions that determine public personnel policy. Special emphasis on compensation plans, position classification, staffing, staff reduction, tenure, affirmative action, and collective bargaining. **Offered as needed.**

PA256 Affirmative Action/Equal Opportunity, 3 class hrs/wk, 3 cr. Acquaints management trainees and related personnel with federal, state, and institutional equal opportunity requirements. Includes history of equal employment opportunity, rationale for EEO programs, descriptions of EEO laws and executive orders and their amendments, affirmative action and its legal basis, advantages of having EEO/AA programs, and agencies established to assist federal and state EEO/AA programs. Use of statistics and analyses of various kinds of work forces. **Offered an needed.**

PA260 Public Finance, 3 class hrs/wk, 3 cr. Aspects of financing state and local governments in Oregon. Includes fiscal management, finance policies, and public issues expressed in budgetary terms. **F, W, Sp**

PA266A, B, C Public Personnel Supervision, 1 class hr/wk, 1 cr. An examination of the supervisor's role in a public service environment. **Offered as needed.**

Reading, see also Communication Skills, Skills Development

Rd005 Basic Reading Skills for Deaf and Hearing Impaired (1122), 3 class hrs/wk, 3 cr. Remedial reading for deaf and hearing impaired students who want to improve reading skills. Involves reading newspapers, magazines, and books aimed at improving reading comprehension, vocabulary, and speed. **F, W, Sp**

Rd009 Basic Reading Tactics I (1109), 3 class hrs/wk, 3 cr. Individualized instruction to help students improve their reading abilities and word recognition. **F, W, Sp, Su**

Rd010 Basic Reading Tactics II (1110), 3 class hrs/wk, 3 cr. Individualized instruction to help students improve their reading abilities and study habits based upon appraisals of their particular levels, needs, and desires. **Prerequisite:** Reading level between sixth and ninth grades or consent of instructor. **F, W, Sp, Su**

Rd115 Advanced Reading Tactics I (1112), 3 class hrs/wk, 3 cr. Instruction in efficient methods of reading to improve students' reading ability through practice, training, and application. For average or above average community college readers. **Prerequisite:** Ninth grade reading level or consent of instructor. **F, W, Sp, Su**

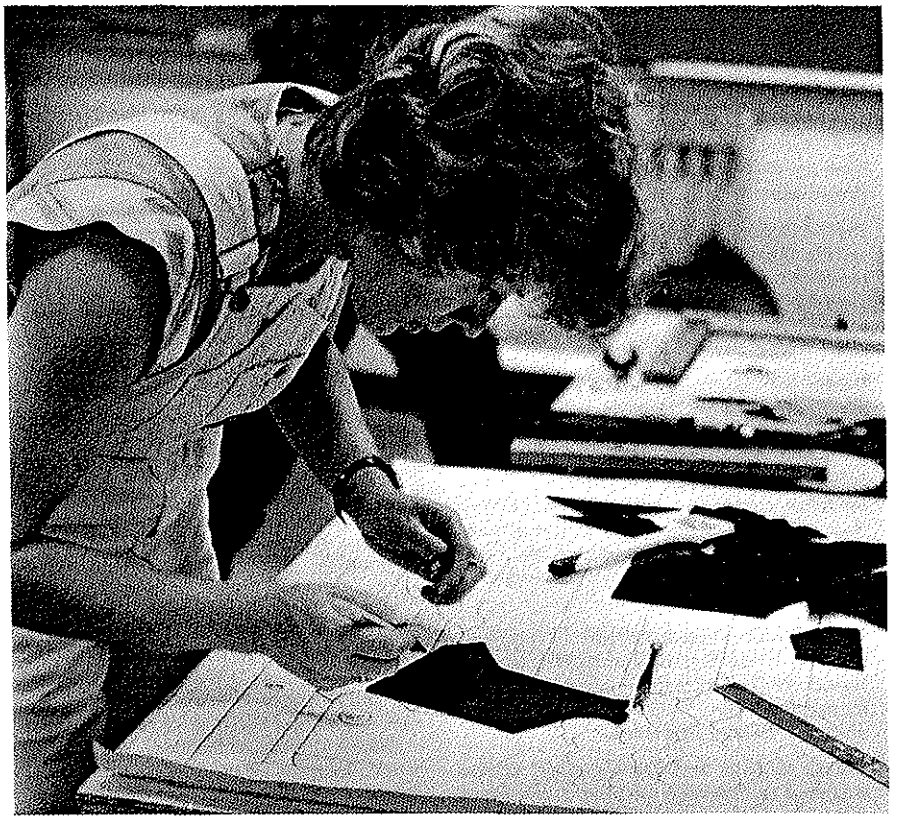
Rd117 Advanced Reading Tactics II (1113), 3 class hrs/wk, 3 cr. Ways to improve reading speed, accuracy of comprehension, thoroughness of retention, and concentration. An aid to improving oral and written expression. **Prerequisite:** Rd115 or consent of instructor. **W, Sp**

Real Estate

RE050 Real Estate-A Consumer Approach (2401), 3 class hrs/wk, 3 cr. How to survive a real estate transaction. Deals with developing a basic understanding of real property, transactions involving real property, concepts of real and personal property, ownership rights and responsibilities, conveyances of realty financing, leasing, and taxation of real property. Emphasizes application of concepts to the acquisition and disposal of real property rights. **F, W, Sp**

RE051 Legal Descriptions, Platting and Map Reading (2437), 1 class hr and 2 lab hrs/wk, 2 cr. Locating properties, sites and points, and reading and writing legal descriptions using metes and bounds,lot and block and governmental rectangular survey systems. Graphic presentation of information with drafting plats, plot plans, and maps. Study of land measurements, areas, and dimensions. Emphasizes functional skills rather than cartographic methods. **Prerequisite:** BA260 suggested. **W**

RE055 Applied Mathematics in Real Estate (2405), 3 class hrs/wk, 3 cr. Fundamental mathematics necessary in real estate transactions, tax computations, real property assessments, percentage relationships, ratios of values, finance, leverage, appreciation, depreciation, and equity ownership.**W**



RE056 Escrow Procedures I (2423), 3 class hrs/wk, 3 cr. The use of work sheets by escrow agents. Emphasizes significance of a third party in real estate transactions. Covers documents required to be held on deposit between the seller and buyer until terms of a contract are completed. **Prerequisite:** BA260 and BA262. **F**

RE057 Escrow Procedures II (2424), 3 class hrs/wk, 3 cr. Obligations of escrow departments and title insurance companies in real estate transactions. Deals with defects of title and abstracts of title to indicate the value of title insurance. Emphasizes the ramifications of title insurance. **Prerequisite:** RE056 **W**

RE058 Escrow Procedures III (2426), 3 class hrs/wk, 3 cr. Theory and practice of real estate exchanges and sales of businesses, including ordinary exchange, tax-free exchanges, multiple exchanges and, in the sale of businesses, bulk sales affidavits, security agreements, assignments of leases, leasehold interests, and other ramifications. Includes review of RE056 and RE057. **Prerequisite:** RE057. **Sp**

RE061 Real Estate Appraisal I (2408), 3 class hrs/wk, 3 cr. Theories, functions, and purposes of appraisal-principles of valuation. Includes cost, market and income approach techniques for determining condemnation, insurance, loan, purchase, and sales values for residential properties. **Prerequisite:** BA264 or consent of instructor. **Sp**

RE062 Real Estate Appraisal II (2409), 3 class hrs/wk, 3 cr. A continuation of RE061 to develop skill in determining values of real estate. Includes cost, income, market approaches and appraisal, and narrative report on single-family property. **Prerequisite:** RE061. **F**

RE063 Real Estate Appraisal III (2411), 3 class hrs/wk, 3 cr. Indicators of value derived by capitalizing net income produced by a property. Covers property techniques, methods, and yield rates. **Prerequisite:** RE062 or appraisal experience. **W**

RE064 Real Estate Appraisal IV (2412), 3 class hrs/wk, 3 cr. Continuation of RE063. **Prerequisite:** RE063 or qualified professional appraisal experience. **Sp**

RE065 Appraisal Report Writing (2414), 3 class hrs/wk, 3 cr. How to write appraisal reports easily understood by clients and their representatives. **Prerequisites: *RE061* and RE062 or consent of instructor. W**

RE066 Real Estate Investment Analysis I-Principles (2415), 3 class hrs/wk, 3 cr. Basic understanding of investments and how to measure their returns. Includes analyzing commercial property to determine income and return on investments, determining cash flow before and after taxes, mortgage retirement, internal rate or return, etc. **Prerequisite:** RE055. **F**

RE067 Real Estate Investment Analysis II-Taxation (2416), 3 class hrs/wk, 3 cr. Advanced and intensive study of tax principles governing real property. Emphasizes tax planning and integration of tax concept with procedural aspects. **Prerequisite:** RE066 or consent of instructor. **W**

RE068 Real Estate Investment Analysis III-Sales and Exchange (2417), 3 class hrs/wk, 3 cr. Alternative methods of property disposal including contract sales and exchanging and tax implications of each. **Prerequisite:** RE067. **Sp**

RE069 Elements of Design and Construction (2418), 2 class hrs and 3 lab hrs/wk, 3 cr. An introduction to design and construction terminology, architectural styles and building designs, material and labor requirements, building codes, and approximate cost estimating for real estate students. Covers materials application, labor methods, costs for representative types of construction and site requirements, and unit-in-place method of estimating. Lab fee, $1. **W**

RE070 Zoning, Subdividing and Community Planning (2425), 3 class hrs/wk, 3 cr. Zoning regulations, codes, restrictions, and cost of development of property for persons who want to subdivide, upgrade or change land use under zone codes, procedures, and material required by the State of Oregon, Marion County and City of Salem. **Sp**

RE083 Real Estate Effective Selling (2430), 3 class hr/wk, 3 cr. Positive approaches and methods of handling functions and requirements of real estate sales, especially residential property. Lectures, class discussions, visual aids, films, tapes, case studies, and role-playing to help students develop and improve sales abilities. **F**

RE084 Real Estate Seminar (2428), 3 class hrs/wk, 3 cr. Defines, explores, and analyzes contemporary real estate problems from various viewpoints within the real estate industry. **Prerequisites:** RE062 or real estate experience. **Offered as needed.**

RE085 Property Management (2422), 2 class hrs/wk, 2 cr. An intensive study of real property management factors. Investment analysis from management, standpoint—analysis of hotels, multiple units, shopping centers, and businesses. **Prerequisite:** BA263. **Offered as needed.**

RE280 Cooperative Work Experience, see Agr280.

Religion

R201 Primitive and Far Eastern Religions, 3 class hrs/wk, 3 cr. A study of religion, religious practices in pre-history, and major oriental religions. Discussion and film media relate the intellectual and the aesthetic, the ancient and modern. Students are encouraged to do individual research. **F**

R202 Near Eastern Religions, 3 class hrs/wk, 3 cr. The second course in a sequence. Surveys thought, scriptures, and practices of Judaism, Christianity, and Islam. Discussions, papers, and film to stimulate critical appreciation of these religions. **Prerequisite:** R201 and/or consent of instructor. **W**

R203 American Religions, 3 class hrs/wk, 3 cr. Major religious traditions, beliefs, and institutions necessary in understanding Western culture. A survey of the richness and diversity of American religious thought and practice, emphasizing useful information for believers and/or questioners. Includes discussion and individualized research projects to aid students in interpreting religious practices. **Sp**

Romance Languages

RL066, 067, 068 Conversational Spanish (1700, 1701, 1702), 3 class hrs/wk, 3 cr. Emphasizes Spanish-American pronunciation, grammar, and practical curriculum-based vocabulary, with some reading and writing. **Offered as needed.**

RL069 Advanced Conversational Spanish (1703), Term I, Advanced conversational skills, including comprehension, self-expression, and pronunciation. Emphasizes vocational and special interest vocabulary building. **Prerequisite:** RL068 or proficiency in basic conversational Spanish. **Offered as needed.**

RL101, 102, 103 First Year French, 4 class hrs/wk, 4 cr. Grammar, vocabulary and common expressions. **Prerequisite:** RL102: RL101 or one year of high school French or consent of instructor. RL103: RL102 or one year of high school French or consent of instructor. **RL101: F; 102: W; 103: Sp**

RL107, 108, 109 First Year Spanish, 4 class hrs/wk, 4 cr. Speaking, reading, writing, and oral comprehension. **Prerequisite:** RL108: RL107 or one year of high school Spanish. RL109: RL108. **RL107: F; 108: W; 109: Sp**

RL201, 202, 203 Second Year French, 4 class hrs/wk, 4 cr. A continuation of study and application of grammar, vocabulary, and syntax. Emphasizes self-expression. Includes some study of French literature and culture. **Prerequisite:** RL201: one year of college French or two years of high school French or consent of instructor. **RL201: F; 202: W; 203: Sp**

RL207, 208, 209 Second Year Spanish, 4 class hrs/wk, 4 cr. A continuation of study and application of grammar, vocabulary, and syntax. Emphasizes self-expression. Includes some study of Spanish literature and culture. **Prerequisite:** RL207: one year of college level Spanish, or two years of high school level Spanish or consent of instructor. **RL207: F; 208: W; 209: Sp**

Secretarial, see Office Administration

Skills Development, see also Communication Skills, Reading

SkD003 College Orientation For Deaf Students (1114), 1 class hr and 1 lab hr/wk, 1 cr. Offers a survey of services available to deaf students at Chemeketa. Also helps deaf students develop basic study skills and decision making. **F, W, Sp**

SkD005 Language Development for the Deaf and Hearing Impaired (1115), 3 class hrs/wk, 3 cr. For deaf students. Emphasizes expanding vocabulary, a better understanding of language used in classes, and improving reading and writing skills. Teachers use American sign language to communicate with students at their individual language levels. **F, W, Sp**

SkD007 Basic Writing Skills for Deaf and Hearing Impaired (1121), 3 class hrs/wk, 3 cr. Remedial course for improving writing skills of deaf and hearing impaired students. Includes sentence structure and paragraph, report and creative writing. **Offered as needed.**

SkD010 Discovering Success (DE020), 3 class hrs/wk, 3 cr. How students may succeed in college through self-understanding, awareness of resources, and group support. Emphasizes clarifying values and making decisions related to life-work planning. **F, W, Sp, Su**

SkD011 Vocational Studies-Bilingual (1130), 2 class hrs and 1 lab hr/wk, 2 cr. Assists bilingual and limited English-speaking students in development of basic college study skills. An orientation to practical realities of the work world by examining self-awareness and occupational choices, looking for jobs, factors affecting upward mobility. Integrates study skills with career/vocational aspects. Includes lectures, guest speakers, and role playing. Bilingual student classroom tutors available. **F, W, Sp**

SkD013A,B,C, Basic Spelling Skills (Wr020A, B, C), 3 class hrs/wk, 1-3 cr. Open-entry individualized instruction in spelling improvement, basic word attack skills, pronunciation, and spelling generalizations. **F, W, Sp, Su**

SkD014A, B, C Intermediate Spelling Skills (Wr021A, B, C), 3 class hrs/wk, 1-3 cr. Open-entry individualized instruction in spelling improvement, basic word attack skills, pronunciation, and spelling generalizations. **F, W, Sp**

SkD015A, B, C, SkD030A, B, C Vocabulary Building (Wr030A, B, C Wr031A, B, C), 3 class hrs/wk, 1-3 cr. Open-entry individualized instruction to help students improve their vocabularies, both general and technical, and develop a sense of correct English usage. May be taken concurrently with any writing course. **F, W, Sp**

SkD031A, B, C Study Skills (1131A), 3 class hrs/wk, 1-3 cr. Open-entry individualized instruction to help students learn how to study. Covers expectations of college, time management, notetaking, test taking, and textbook reading. **F, W, Sp**

SkD049 Basic Communication Skills for Deaf and Hearing Impaired (1123), 3 class hrs/wk, 3 cr. Expressive and receptive communication skills. Stresses organizing written and oral reports, developing better listening skills, and learning to communicate effectively in group situations. **Offered as needed.**

Social Science

SSc102 The Minority Experience in Contemporary America, 3 class hrs/wk, 3 cr. Representatives from various ethnic groups at Chemeketa present specific issues to acquaint students with issues facing members of minority groups, their responses to these issues, and their perception of the dominant culture. **Sp**

Sociology

Soc204 General Sociology-Introduction, 3 class hrs/wk, 3 cr. Basic issues and findings regarding the biological, symbolic, and social nature of mankind. Discusses foundations for social interaction including patterns of social structure, culture, socialization, primary relationships, social differentiation, organization, deviance, and collective behavior. Includes principles of scientific methods and major sociological theorists. **F, W, Sp, Su**

Soc205 General Sociology-Institutions, 3 class hrs/wk, 3 cr. An analysis of social institutions emphasizing family, religion, education, economy, politics, and factors contributing to institutional stability and change. **Prerequisite:** Soc204 or consent of instructor. **F, W, Sp, Su**

Soc206 General Sociology, 3 class hrs/wk, 3 cr. A sociological approach to major social problems in contemporary American society. Emphasizes concepts of aging, health care, law, leisure, minorities, pollution, poverty, technology, urbanization, work, and youth. **Prerequisite:** Soc204 or consent of instructor. **F, W, Sp, Su**

Soc208 Social Changes and Earth's Resources, 3 class hrs/wk, 3 cr. Introduction to the direction and form social change may take because of rapidly increasing consumption of limited natural resources serving a growing mass population. Studies various adaptive possibilities which seem open to society. Uses case materials from the Pacific Northwest. **Offered as needed.**

Soc221 Juvenile Delinquency, 3 class hrs/wk, 3 cr. The nature, extent, causes, control, reaction, treatment, and rehabilitation of juvenile delinquency in contemporary American society from a sociological perspective. **W**

Soc222 Marriage Relationships, 3 class hrs/wk, 3 cr. Sociological approach to marriage, including preparation for marriage, mate selection, adjustment to marriage, marital problems to expect and solve, and changing styles of family relationships. **F**

Soc291 Introduction to Data Collection and Interpretation, 3 class hrs/wk, 3 cr. Survey of concepts, techniques, and approaches used in collecting information from a scientific perspective. Covers varieties of procedures and strategies used in decision making and information reporting. Includes analysis of data. **Offered as needed.**

Soc292 Introduction of Consumer Behavior (BA243), 3 class hrs/wk, 3 cr. How behavioral science concepts, theories, and research observations apply to various aspects of consumer behavior. Discusses influences of perception, personality, attitudes, culture, family life, and social class on how and why people buy and consume products. **Offered as needed.**

Soc295 Seminar: Grant Writing, 3 class hrs/wk, 3 cr. Explores availability of private and public grants. How to expand basic skills in grant writing. **F, W, Sp, Su**

Speech

Sp111 Fundamentals of Speech, 3 class hrs/wk, 3 cr. A survey emphasizing interpersonal, group, and public communications. **F, W, Sp**

Sp112 Fundamentals of Persuasion, 3 class hrs/wk, 3 cr. Ways to become an effective speaker to meet job demands or to build self-confidence. Covers verbal and non-verbal levels of persuasion, concentrating on effective delivery, motivation, and language. **W, Sp**

Sp113 Fundamentals of Leadership in Group Communication, 3 class hrs/wk, 3 cr. How to participate effectively in a committee-oriented society. Includes discussion and activities for developing leadership abilities and improving communication techniques in small task groups. **Sp**

Sp114 Interpersonal Communication, 3 class hrs/wk, 3 cr. For students who have no need for a formal speaking course, but would like to be able to communicate more effectively with friends and business associates. Covers concepts of self-awareness, nonverbal communication, emotional listening, and assertiveness. **F, W, Sp**

Sp126 Awareness of Communication in Relationships (Sp115), 3 class hrs/wk, 3 cr. Practical information to strengthen personal relationships through communication. Explores major communication styles often confronted in intimate relationships and offers techniques for improving them. Stresses problem-solving options and flexibility. **Prerequisite:** Sp125. **W, Sp**

Sp130 Business and Professional Speaking, 3 class hrs/wk, 3 cr. Stresses improved speech efficiency, self-confidence, and skill in organization and delivery of speeches for business and social activities. Practical application in actual situations. **Offered as needed.**

Sp199 Effective Listening, 3 class hrs/wk, 3 cr. Explores ways to break bad listening habits and improve listening abilities. **W, Sp**

Sp270 Projects in Public Speaking, 4 lab hrs/wk, 2 cr. Preparation in speeches, debates, and discussions for delivery before public audiences and in intercollegiate competition. **Prerequisite:** Sp111 minimum; prefer Sp111 and Sp112. **Offered as needed.**

Theater Arts

TA121 Fundamentals of Acting, 6 lab hrs/wk, 3 cr. Introduction to principles of acting, development of body control, investigation of body skills, and use of improvisation in dramatic expression. **F**

TA122 Fundamentals of Acting, 6 lab hrs/wk, 3 cr. Use of the voice in dramatic roles, its production, and control. An introduction to dialects and accents. **W**

TA123 Fundamentals of Acting, 6 lab hrs/wk, 3 cr. Problems in the analysis and presentation of characters in dramatic literature. **Sp**

TA161 Fundamentals of Technical Theater, 2 class hrs and 2 lab hrs/wk, 3 cr. Construction, painting, and shifting techniques for stage scenery and properties. Study of backstage procedures and stage management. **Offered as needed.**

TA270 Stage Makeup, 1 class hr and 2 lab hrs/wk, 2 cr. Theory and practical applications of theatrical makeup. The use of makeup in various theatrical media, and the use of different types of makeup. **Offered as needed.**

TA285A, B, C Theater Production Workshop, variable hrs and cr. Principles of dramatic production demonstrated through practical production experiences or special laboratory projects. **F, W, Sp**

Tourism

Tr051 Domestic Tourism (BA200I), 3 class hrs/wk, 3 cr. An introduction to prime geographic tourist destinations in the United States. Covers basic geography, major cities, elements of the natural environment, points of interest, and attractions especially appealing to tourists. **F**

Tr052 International Tourism I (BA200F), 3 class hrs/wk, 3 cr. An introduction to prime geographic tourist destinations in Europe. Covers basic geography and major cities, elements of the natural environment, points of interest, and attractions especially appealing to tourists. **W**

Tr053 International Tourism II (BA200J), 3 class hrs/wk, 3 cr. A continuation of Tr052. Major cities, elements of the natural environment, points of interest and attractions, especially appealing to tourists in countries not covered in Tr052. **W**

Tr054 Travel Agent Basics (BA200H), 3 class hrs/wk, 3 cr. Covers use of reference material, itinerary planning, domestic tariff and ticketing, reservation procedures, introduction to tours, and agency office procedures for travel industry personnel. **W**

Visual Communications

VC040 Introduction to Graphics (6150), 3 class hrs and 9 lab hrs/wk, 1 cr. A 12-hour introduction to Visual Communications. Provides a brief look at the graphic arts industry and an opportunity to try the skills required of workers. **Su**

VC051 Graphic Design and Character Generation (6166), 3 class hrs and 12 lab hrs/wk, 6 cr. Paste-up, character generation, art techniques, design, principles, layout, proof reading, copy classification, photo composition, and typography. **F, W, Sp**

VC052 Process Photography, Stripping and Platemaking (6168), 3 class hrs and 12 lab hrs/wk, 6 cr. Development of technical competency in production methods and knowledge of process photography, line copy, halftones, development methods, stripping (including multiple exposures), scribing, register systems, exposure computers, platemaking, and elementary densitometry. Includes practical applications of theoretical basis of process photography. **F, W, Sp**

VC053 Press Work and Reproduction Systems (6170), 3 class hrs and 12 lab hrs/wk, 6 cr. Image transfer systems, press designs, feeders, printing units, dampening units, inking systems, delivery systems, office duplication, pH control, and career opportunities. **F, W, Sp**

VC061 Advanced Graphic Design (6167), 3 class hrs and 12 lab hrs/wk, 6 cr. Practice and experience in visual communication and graphic technology relating to information design, multiple paste-up, register controls and systems, typographic design display, tabular composition, proofing, procedures, career opportunities, symbology and audience analysis. **Prerequisite:** VC051. **F, W, Sp**

VC062 Image Conversion and Image Carriers for Offset Lithography (6169), 3 class hrs and 12 lab hrs/wk, 6 cr. Image conversion, posterization, knockouts, chokes, spreads, duotones, densitometry, multiple color stripping, specialized films, photographic materials, plates and other image carriers, quality controls including graphic design, design element conversion into reproducible elements, assembly of the reproducible elements into an image carrier, and transfer of the image carrier to a transport. **Prerequisite:** VC052. **F, W, Sp**

VC063 Advanced Presswork (6171), 3 class hrs and 12 lab hrs/wk, 6 cr. Practical experience relating to papers and inks, rollers and cylinder adjustments, multiple color runs, registration controls, pH control, and outside plant observations. **Prerequisite:** VC053. **F, W, Sp, Su**

VC067 Basic Technical Photography (6163), 3 class hrs and 6 lab hrs/wk, 5 cr. Fundamentals and technical aspects of photography including types of cameras, f/systems, shutter speeds, film types and specifications, developing, basic enlarging, composition, career opportunities, vocabulary, equipment, and display techniques. For students interested in photographic careers. Includes directed photographic assignments and photo lab work. Lab fee, $5. **F**

VC068 Intermediate Technical Photography (6164), 2 class hrs and 9 lab hrs/wk, 6 cr. Professional and graphic arts photography incorporating light measuring, gamma, densitometry, interpretation and uses of technical data, technical aspects of photographic design, microfilm, shooting and processing of color slides, use of color analyzers and densitometers, career opportunities, techniques of photographic copying, and retouching of negatives and prints. **Prerequisite:** VC067 and/or consent of instructor. Lab fee, $8. **W**

VC070 Science of Photography (6165), 3 class hrs and 3 lab hrs/wk, 4 cr. Basic photography techniques emphasizing optics, physics, and chemistry as they relate to the Visual Communications curriculum. Lab fee, $6. **W**

VC071, 072, 081, 082 Special Problems in Graphic Communication (6172), variable hrs and cr. Final course for graphic arts and photography students. After identifying a communication problem, a student and instructor write a contract which includes a proposal to solve the problem. It identifies objectives, procedures, equipment needed, and key check points for student-instructor conferences. Areas of consideration may include color separation, plant management, and quality control. Consideration and encouragement given for interdisciplinary teams of students working on common problems. Variable amounts of credit given, ranging from three term units to seven term units. **Prerequisite:** VC051, VC052, VC053 or consent of instructor. **F, W, Sp, Su**

VC280 Cooperative Work Experience, see Agr280.

Welding

Wld051 Basic Arc Welding (4240), 2 class hrs and 9 lab hrs/wk, 5 cr. Arc welding equipment, materials and procedures used in industry. Basic techniques in flat, horizontal, vertical, and overhead welding by demonstration and supervised practice. Includes basic technical and related information concerning processes and metallurgy. Lab fee, $15. **F, W, Sp**

Wld052 Intermediate Arc Welding (4241), 2 class hrs and 12 lab hrs/wk, 6 cr. A continuation of Wld051 covering ferrous and nonferrous alloys and welding procedures. Demonstration and supervised practice of techniques on various metals, applied in fabrication and repair concurrently with related information concerning the use and structure of these materials. **Prerequisite:** Wld051 or consent of lead instructor. Lab fee, $20. **F, W, Sp**

Wld053 Advanced Arc Welding (4166), 1 class hr and 6 lab hrs/wk, 3 cr. A laboratory course to train certified welders. Extensive practice on simulated tests required for certification in plate and pipe welding followed by the test and certification by the state if the student qualifies. Includes a study of welding procedures previously covered as they apply to heavy gauge welding. **Prerequisites:** Satisfactory completion of Wld051 and Wld052 or equivalent industrial experience with consent of lead instructor. Certification test fee is determined by the number of students involved and the type of test. The fee must be paid at least one week prior to the test date. Lab fee, $15. **Sp**

Wld054 Introduction to Welding/GMA-Gas (4700), 12 hrs/1 wk (3 hrs/day, 4 days), 1 cr. A survey of safety, power sources, wires, shielding gases, application of the GMA process, and support equipment used in welding. **Su**

Wld056 Blueprint Reading and Sketching (4244), 6 lab hrs/wk, 2 cr. Basic sketching techniques and reading of three-view drawings for welders. Includes dimensioning practices, scaling, line alphabet notes, and symbols. Emphasizes developing skills in reading detail and welding drawings. **F**

Wld057 Layout Practices (4245), 3 lab hrs/wk, 1 cr. A study of layout tools and their use in fabricating structural members, bins, hoppers, pipe fittings, chutes, etc. Includes principles and practices of pattern development for typical forms and fitting. Lab fee, $5. **W**

Wld058 Weld Shop Problems (4249), 2 class hrs and 15 lab hrs/wk, 7 cr. A review and application of welding, layout, and fabrication processes covered during the year. Includes study and practice of production welding methods, electrode consumption, and method selection. Selected fabrication and assembly projects present typical layout, fabrication, and production problems. **Prerequisite:** Student must possess sufficient welding and fabrication skills to complete assigned projects under job shop conditions. Lab fee, $15. **Sp**

Wld061 Basic Gas Metal Arc Welding (MIG) (4250), 1 class hr and 4 lab hrs/wk, 2 cr. Basic skills in semiautomatic metal inert gas (MIG) welding processes. Principles involved in equipment, material, and procedures combined with demonstrations and supervised practical experience using standard industrial equipment. Use of solid and flux-cored wire in typical industrial applications. Lab fee, $10. **W, Sp**

Wld062 Advanced Gas Metal Arc Welding (MIG) (4252), 1 class hr and 6 lab hrs/wk, 3 cr. A continuation of Wld061. Includes mild steel, basic arc welding of ferrous and non-ferrous alloys, and welding procedures. Demonstration and supervised practice of techniques on various metals, applied in fabrication and repair concurrently with related information concerning the use and structure of these metals. **Prerequisite:** Wld061 or consent of lead instructor. Certification test fee is determined by the number of students involved and the type of test. The fee must be paid at least one week prior to the test date. Lab fee, $15. **W, Sp**

Wld064 Introduction to Welding/SMA-Arc (4701), 12 hrs/1 wk (3 hrs/day, 4 days), 1 cr. A survey of safety, power sources, and electrodes used in the SMA process and support equipment used in welding. **Su**

Wld071 Basic Oxyacetylene Welding (4161), 1 class hr and 3 lab hrs/wk, 2 cr. Fundamentals of oxyacetylene welding including brazing and cutting processes. Lab fee, $12. **F, W**

Wld072 Oxygen-Acetylene Cutting (4242), 5 lab hrs/wk, 2 cr. Use and care of oxyacetylene cutting equipment. Lab fee, $10. **F**

Wld073 Basic Gas Metal Arc Welding (TIG) (4251), 1 class hr and 6 lab hrs/wk, 3 cr. Fundamentals of tungsten inert gas (TIG) welding processes, machine setting and application and development of inert gas welding skills. Includes welding of mild steel, aluminum, aluminum alloys, stainless steel, and magnesium. **Prerequisites:** Wld071 or consent of lead instructor. Lab fee, $10. **W, Sp**

Wld074 Introduction to Welding-Safety (4702), 12 hrs/1 wk (3 hrs/day, 4 days), 1 cr. Discussion and demonstration of safety practices concerning welding and fabrication equipment and regulations concerning this equipment. **Su**

Wld077 Welding (4150), 1 class hr and 3 lab hrs/wk, 2 cr. A beginning course in arc welding. Covers welding equipment, materials, procedures, and basic technical and related information. Lab fee, $6. **F, W**

Wld081 Welding Metallurgy I (4247), 2 class hrs/wk, 2 cr. Fundamentals of metallurgy pertaining to welders. Covers identification of ferrous metals, distortion, stress relieving, flame straightening and hardening plus various metallurgical problems. **Prerequisite:** Successful completion of term one of the welding option or consent of lead instructor. **W**

Wld082 Welding Metallurgy II (4248), 2 class hrs/wk, 2 cr. A continuation of Wld081 covering the common non-ferrous metals and chromium alloys. **Sp**

Wld097 Welding (4153), 1 class hr and 3 lab hrs/wk, 2 cr. Fundamentals and application of arc welding, oxyacetylene welding, brazing and cutting pertaining to the automotive industry. Lab fee, $6. **F**

Wld098 Metallurgy (6602), 2 class hrs and 3 lab hrs/wk, 3 cr. Principles relating to metals, structures and physical properties. Explores uses, heat treatments, and testing of various metals. Laboratory time provides demonstrations and experiments to aid classroom studies. **Prerequisite:** Consent of lead instructor. **W**

Welding Fabrication

WFb053 Welding For Certification (4167), 1 class hr and 9 lab hrs/wk, 4 cr. A continuation of Wld052 to train certified welders. Extensive practice on simulated tests required for certification in plate and pipe welding followed by the test and certification by the state if the student qualifies. Includes previously covered welding procedures as they apply to heavy gauge welding. **Prerequisite:** Satisfactory completion of Wld051 and Wld052 or equivalent work experience with consent of lead instructor. Certification test fee is determined by the number of students involved and type of test. The fee must be paid at least one week prior to the test date. Lab fee, $18. **Sp**

WFb063 Production MIG Welding (4165), 1 class hr and 6 lab hrs/wk, 3 cr. Students set up and weld under production situations. Instruction in the proper selection of the MIG process for different projects. **Prerequisite:** Wld062 or consent of lead instructor. Certification test fee is determined by the number of students involved and type of test. The fee must be paid at least one week prior to the test date. Lab fee, $15. **Sp**

WFb081 Elements of Metallurgy (6600), 3 class hrs/wk, 3 cr. Basic metallurgical theories as they apply to the welding industry. **Sp**

WFb082 Heat Treatment of Steel (4849), 2 class hrs and 3 lab hrs/wk, 3 cr. Methods and procedures for improving characteristics of steel by hardening and tempering. Heat treating processes, including furnace and flame hardening, case hardening, tempering, annealing and normalizing, and hardness and tensile testing. Laboratory time provides hardening, tempering and testing demonstrations and experiments. Lab fee, $8. **F**

WFb083 Fabrication Practices I (4155), 1 class hr and 3 lab hrs/wk, 2 cr. Practice in fabricating of metals and metal finishing. Includes change of shape, change of physical characteristics, and joining of metals. **Prerequisite:** Completion of basic arc course or consent of lead instructor. Lab fee, $8. **W**

WFb086 Fabrication Practices II (4156), 2 class hrs and 3 lab hrs/wk, 3 cr. Study and application of fabricated metal technology. Recognition of pattern and job material and positioning of fabricated sections for rapid completion. Use of automated equipment to eliminate distortion problems. **Prerequisite:** Completion of basic MIG course or consent of lead instructor. Lab fee, $8. **Sp**

WFb087 Fabrication Practices III (4157), 1 class hr and 6 lab hrs/wk, 3 cr. A continuation of WFb086. Fabrication and structural and ornamental iron machinery frames and bases. **Prerequisite:** Basic welding skills. Lab fee, $8. **W**

WFb088 Fabrication Practices IV (4158), 1 class hr and 6 lab hrs/wk, 3 cr. Instruction and experience in production type welding with use of jigs, fixtures, and positioners. **Prerequisite:** Basic welding skills. Lab fee, $8. **Sp**

WFb091 Fabrication Procedures (4243), 6 lab hrs/wk, 2 cr. Methods and application in layout and template design for structural shapes and pipe. Lab fee, $8. **W**

WFb092 Fabrication Shop Problems I (4168), 8 lab hrs/wk, 3 cr. Applies drafting and mathematics to problems in fabrication and structural members, bins, hoppers, pipe fittings, chutes, etc. Includes principles and practices of pattern development for typical shapes and fittings. **Prerequisite:** Basic welding and fabrication skills acquired in previous courses or industrial experience with consent of lead instructor. Lab fee, $8. **F**

WFb093 Fabrication Shop Problems II (4169), 8 lab hrs/wk, 3 cr. A continuation of WFb092 with emphasis on quality control. **Prerequisite:** WFb092 or consent of lead instructor. Lab fee, $10. **W**

WFb096 Shop Projects (4254), 1 class hr and 3 lab hrs/wk, 2 cr. Practical experience in maintenance and repair of weld shop machines, accessories, and fixtures. Uses selected fabrication and repair projects to develop resourcefulness and confidence in the application of

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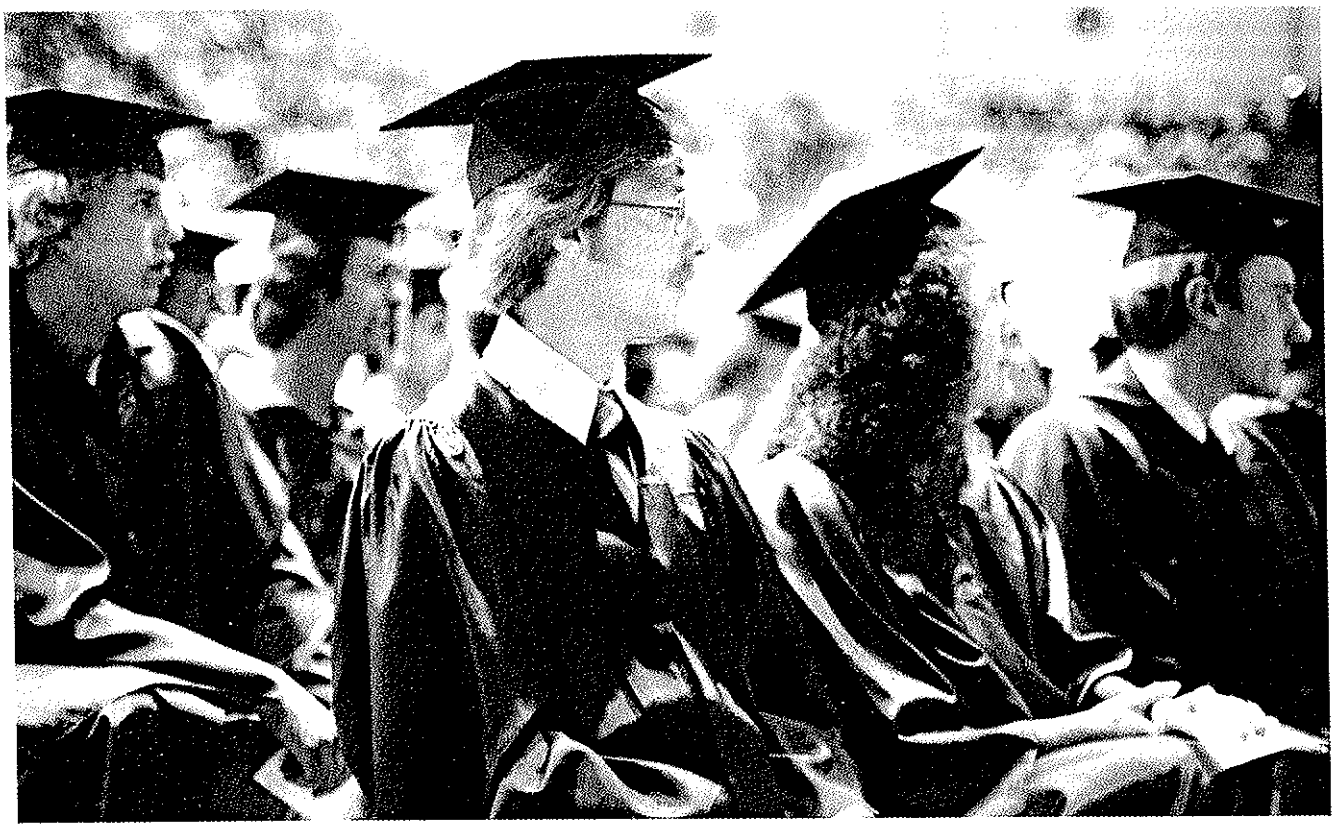

skills and knowledge developed in concurrent courses. **Prerequisite:** Concurrent registration as a full-time student in the welding program or consent of lead instructor. Lab fee, $5. **Sp**

WFb280 Cooperative Work Experience, see Agr280.

Women's Studies

WS100 Women in Transition, 3 class hrs/wk, 3 cr. Deals with adjustments women make upon returning to school. Topics include family vs. students' needs, confidence building, study skills, financial assistance, time management, the search for a basic survival job, and specific needs of the students. Open to men. **F**

WS101 Introduction to Women's Studies, 3 class hrs/wk, 3 cr. Women as a minority group, the role of women from a variety of social science perspectives, position of women in the family and the labor force, and the political psychology of women. A look at women cross-culturally, in history, and in literature. **F**

WS102 Introduction to Women's Studies, 3 class hrs/wk, 3 cr. The historical development of women from the 1920s through the 1960s with major emphasis on women cross-culturally in developing third world countries and modern industrial societies. **Prerequisite:** WS101. **W**

WS103 Introduction to Women's Studies, 3 class hrs/wk, 3 cr. Women as social beings moving toward the year 2000 A.D. Emphasizes theoretical changes occurring in anthropological, psychological, and other social areas which have major implications on future behavioral trends. Includes development of changes in labor, laws, and social institutions with an eye toward future patterns. Focuses on research and evaluation of theories and data. **Sp**

Writing

Wr040 Writing Skills, 3 class hrs/wk, 3 cr. Basic grammar and sentence construction. Combines lecture, discussion, and writing workshop. **F, W, Sp**

Wr120 Preparatory English Composition Skills, 3 class hrs/wk, 3 cr. Preparation for college-level writing. Includes ways to improve self-confidence and fluency in writing, sentence structure, punctuation and usage, and the organization of expository paragraphs. **F, W, Sp**

Wr121 English Composition-Exposition, 3 class hrs/wk, 3 cr. First term college level course. Emphasizes clear, detailed expository prose, clear thinking, and intelligent reading. **Prerequisites:** Demonstrate mastery of 1) writing complete, correct sentences, 2) using punctuation correctly, 3) following generally accepted conventions of standard English usage, 4) spelling correctly and knowing meanings of words commonly used in one's own writing. **F, W, Sp**

Wr122 English Composition, Logic and Style, 3 class hrs/wk, 3 cr. Second term college level course. Includes logical, effective argumentative prose, awareness of stylistic elements, and critical readings. **Prerequisite:** Wr121. **W, Sp**

Wr123 English Composition-Research Writing, 3 class hrs/wk, 3 cr. Third term college level course. Covers the acquisition and evaluation of evidence, integration of opinion, and process and forms for developing research papers. **Prerequisite:** Wr121. **Sp**

Wr227 Technical Writing, 3 class hrs/wk, 3 cr. Various skills and forms used in technical communication. **Prerequisite:** Wr121, 122 or consent of instructor. **F, W, Sp**

Wr241, 242, 243 Imaginative Writing, 3 class hrs/wk, 3 cr. Workshop in writing fiction, drama, and poetry. Daily discussions of student writings. Includes some textual explorations with student and instructor presentations. **Wr241: F; 242: W; 243: Sp**

Wr248 Freeing Yourself to Write Through Body Movement, 3 class hrs/wk, 3 cr. Introduction to a series of body movement exercises designed to initiate, sustain, and refine personal and professional writing. **Offered as needed.**

Wr270 A-E Literary Publications, 2-6 lab hrs/wk, 1-3 cr. How to solicit, select, edit, proofread, and publish writings for Chemeketa's student literary journal, **Before the Sun.** No prerequisites required but previous writing courses are helpful, particularly Wr122, Wr241, Wr242 or Wr243. **F, W**

Zoology

Zoo201, 202, 203 General Zoology, 3 class hrs and 3 lab hrs/wk, 4 cr. Introduction to animal life dealing with principles, theories, and applications of animal biology. Includes comparative study of the morphology, anatomy, life history, physiology, development, and ecology of both vertebrates and invertebrates. Zoo202 emphasizes invertebrates, Zoo203 emphasizes vertebrates. **Prerequisite:** High school chemistry and biology or one quarter college biology. Lab fee, $6, per course. **Zoo201: F; 202: W; 203: Sp**

Board of Education

Members of Chemeketa's Board of Education are elected to represent seven geographical zones in the college district.

Wayne E. Feller, Silverton, zone four, chairperson
Roba Rathkey, McMinnville, zone two, vice-chairperson
Michael Holland, Salem, zone one
Robert Putman, Salem, zone three
Cornelius C. Bateson, Salem, zone five
Glenn W. Middleton, Salem, zone six
Robert Marsh, Dallas, zone seven

Staff

as of April 1982

Adams, Ruth—Instructor, Life Science
Adelman, Richard—Instructor, Physical Education
Agee, Charles—Instructor, Automotive Technology
Anderson, Frank—Director, Evening, Weekend, and Summer Programs
Anderson, Robert—Director, Computer Services
Anderson, Ronald—Instructor, GED
Asher, Greg—Instructor, Psychology
Atwell, Kenneth—Instructor, Small Business Management

Baird, William—Grants Manager, Oregon State Correctional Institution
Barnes, Nancy—Diagnostician
Barrett, Arthur—Instructor, Electronics
Barth, H. Philip—Director, Business Services
Bay, Brian—Instructor, Fire Protection Technology
Beckerman, Cecile—Instructor, Secretarial and Clerical
Beebe, Janell—Instructor, Secretarial and Clerical
Benolken, Robert—Instructor, Physical Science
Berg, Betty—Director, Business and Management
Berger, Gerard—Dean, Student Personnel Services

Berman, Arthur—Instructor, Management
Bibler, Robert—Instructor, Art and Film Studies
Binnie, Arthur—President
Blank, Franklin—Director, Registration, Records and Admissions
Blodget, James—Video Media Specialist
Blodget, Kristine—Instructor, Life Science
Blucher, Robert—Instructor, Data Processing
Bode, Elizabeth—Lead Instructor, Medical Assisting and Health Records
Bodtker, Diana—Instructor, Life Science
Bodtker, Egon—Director, Public Service and Social Science

Bolen, Gene—Director, Counseling
Borchgrevink, Nancy—Dean, Instructional Services
Bothwell, Bruce—Instructor, Electronics
Boyington, Gary—Instructor, Electronics
Briedwell, John—Director, West District, Community Education
Brooks, W. David—Instructor, Accounting
Bunch, Ray—Instructor, Data Processing
Burris, Jeanne—Instructor, Educational Aide
Butters, Carolyn—Educational Specialist, Stayton Center Coordinator
Buttles, George—Instructor, Human Resource
Byers, Maxine—Instructor, Developmental Education

Campbell, Lorraine—Personal and Family Courses Specialist
Caster, John—Instructor, Farm Business Management
Chancey, Fred—Instructor, Communication Skills
Chesley, Robert—Instructor, Inmate Education
Close, Jimmie—Instructor, Business Technology
Clyde, Bobbie—Specialist, Business Education
Clyde, John—Outreach Counselor
Cochrane, Edward—Instructor, History
Cockrell, Barbara—Lead Instructor, Secretarial, Clerical and Office Occupations
Cockrell, James—Lead Instructor, Real Estate
Concepcion, Paul—Instructor, Psychology
Concepcion, Sandra—Instructor, Composition and Literature

Connor, Marilyn—Instructor, Communication Skills
Cooter, Stephan—Instructor, Composition and Literature
Cornutt, Delvin—Instructor, Sociology
Coskey, Jack—Instructor, Survey and Forest Technology
Couse, Lyle—Instructor, Business Technology
Covington, Robert—Specialist, CETA—College Relations
Cox, Drexel—Director, Personnel and Labor Relations
Craven, Linda—Instructor, Early Childhood Education
Cullison, Joanne—Instructor, Developmental Education

Davey, Donald—Lead Instructor, Civil Engineering
Davey, Stanley—Director, Facilities and Operations
Davies, Henry—Instructor, Forest Technology
Davis, Anne—Counselor
Dill, Cecil—Specialist, Fire Protection Technology
Dixon, Robert—Instructor, Machine Technology
Dodge, Thomas—Instructor, Machine Technology
Doeneka, Molly—Instructor, Anthropology and Political Science

Eldred, Carolyn—Counselor
Elling, Kay—Instructor, Life and Physical Sciences
Emerson, Willard—Instructor, Fire Protection Technology
Endler, Hank—Director, Trades
Eppstein, Robert—Lead Instructor, Building Inspection
Erovick, Joyce—Instructor, Nursing

Farrell, Cathey—Instructor, Emergency Medical Technology
Faust, Dorothy—Instructor, Mathematics
Felton, Maureen—Instructor, Early Childhood Education
Fenske, Helen—Instructor, Human Resource
Ferry, Marjorie—Instructor, Composition and Literature
Field, David—Instructor, Welding Technology
Fishfader, Randy—Instructor, Early Childhood Education
Fitzgerald, George—Instructor, Life Science
Foley, Dale—Instructor, Building Inspection

Ford, Ed—Instructor, Physical Education
Ford, Lowell—Director, Student Activities and Evaluation
Forest, Jacques—Instructor, Economics
Forslund, Larry—Lead Instructor, Life Science
Foster, Charles—Director, Curriculum and Public Services
Frank, Bruce—Instructor, Civil Engineering
Freeman, Tony—Instructor, Human Resource
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Garcia, Francisco—Counselor
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Gillette, David—Instructor, Mathematics
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Green, Constance—Director, Financial Aid and Work Related Experience
Greenbaum, Kenneth—Instructor, Dental Assisting
Guthrie, Paul—Specialist, Institutional Research and Systems Development

Haines, Beverley—Coordinator, Cooperative Work Experience
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Hanby, Stephen—Instructor, Welding Technology
Hansen, Dorette—Instructor, Dental Assisting
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Harker, Keith—Director, Learning Resource Center
Harmon, Millie—Instructor, Sociology
Harris, Lois—Instructor, Nursing
Harris, Ralph—Instructor, Mathematics
Hassoun, Judy—Counselor
Hatfield, Gladys—Director, Allied Health

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Held, Leonard—Instructor, Composition, Literature, and Film Studies
Hendrix, Paul—Specialist Career Development
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Hilgemann, Vickie—Instructor, Speech Communications
Hillig, Kathryn—Instructor, Learning Center, Oregon State Correctional Institution
Hodges, Gary—Instructor, Automotive Technology
Hofmann, Ronald—Associate Dean, Curriculum and Evaluation
Hoobler, Tony—Instructor, Physical Science
Houck, Midge—Coordinator, Cooperative Work Experience
Hulett, Ronald—Coordinator, Cooperative Work Experience

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Johnson, Marian—Instructor, Nursing
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Jones, Ben—Counselor
Jones, Lee—Instructor, Mathematics
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Judd, Roger—Lead Instructor, Mathematics

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Koontz, Everett—Media Production Specialist
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Maga, Carol—Affirmative Action Specialist and Assistant to President
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Mathews, Carl—Purchasing Agent
McAlister, Phyllis—Instructor, Nursing

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McLain, Roger—Instructor, Criminal Justice
McLaughlin, Suzanne—Instructor, Spanish and French
McNicholas, Michael—Instructor, Physical Science
McNicholas, Suzanne—Instructor, Human Resource
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Miller, Mary Ann—Instructor, Special Projects

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Mohn, Elaine—Instructor, Nursing
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Mylan, Irene—Employee Development Specialist

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Pohl, Leslie—Instructor, Machine Technology
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Prothero, Marylin—Instructor, English as a Second Language

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Ringwald, Beverley—Instructor, Office Occupations
Robinson, Marilyn—Instructor, Mathematics

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Scheer, Sara—Instructor, Nursing
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Sharp, Grady—Instructor, Criminal Justice Administration
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Shotts, Phyllis—Lead Instructor, Secretarial and Clerical
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Slosser, Joseph—Instructor, Psychology
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Smith, Warren—*Instructor, Speech Communications*
Smith, William—Instructor, Emergency Medical Technology

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Stam, Bruce—Instructor, Early Childhood Education
Steiner, Ann—Instructor, Adult Basic Education and GED
Steiner, Jerry—Instructor, Mathematics
Streight, Gene—Lead Instructor, Agribusiness and Crop Production
Stubbs, Hazel—Instructor, Nursing
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Suter, Paul—Lead Instructor, Communication Skills

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Triplett, Geary—Counselor
Trumbo, Mark—Educational Specialist, McMinnville Center Coordinator

VanDyke, Don—Instructor, Data Processing
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Vejlupek, Lillis—Instructor, Early Childhood Education

Wade, DeVon—Lead Instructor, Accounting
Waldroff, Helen—Instructor, Nursing
Wall, David—Instructor, Life Science and Agriculture
Ward, Jill—Lead Instructor and Facilitator, Deaf, *Hearing Impaired, and Visually Impaired*
Wasson, Barbara—Instructor, Developmental Education
Webster, Margaret—Instructor, Food Service
Welch, Raymond—Director, Community Education, East District
West, Susan—Instructor, Physical Education
White, Howard—Coordinator, Apprenticeship

White, Roger—Instructor, Electronics
White, Vernon—Instructor, Forest Technology
Wiggington, Barbara—Instructor, Composition and Literature
Wilson, Dan—Instructor, Agribusiness and Crop Production
Wilson, Joyce—Coordinator, Refugee Project
Wintermeyer, Larry—Instructor, Data Processing
Woodnutt, Thomas—Placement Specialist
Wright, Larry—Instructor, Real Estate

Zacharias, Patricia—Instructor, Health Records
Zielinski, Edna—Instructor, Circuit Rider

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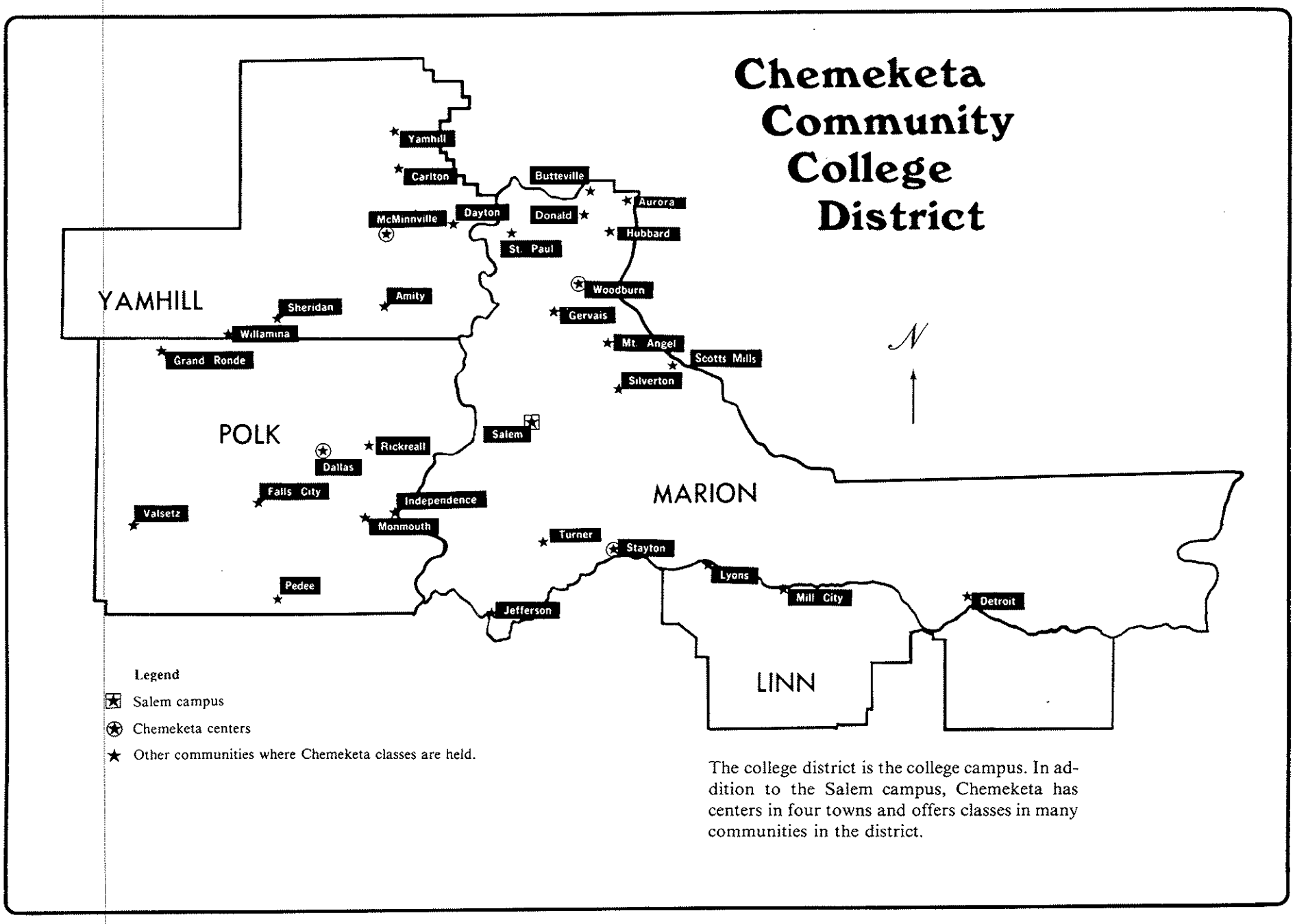
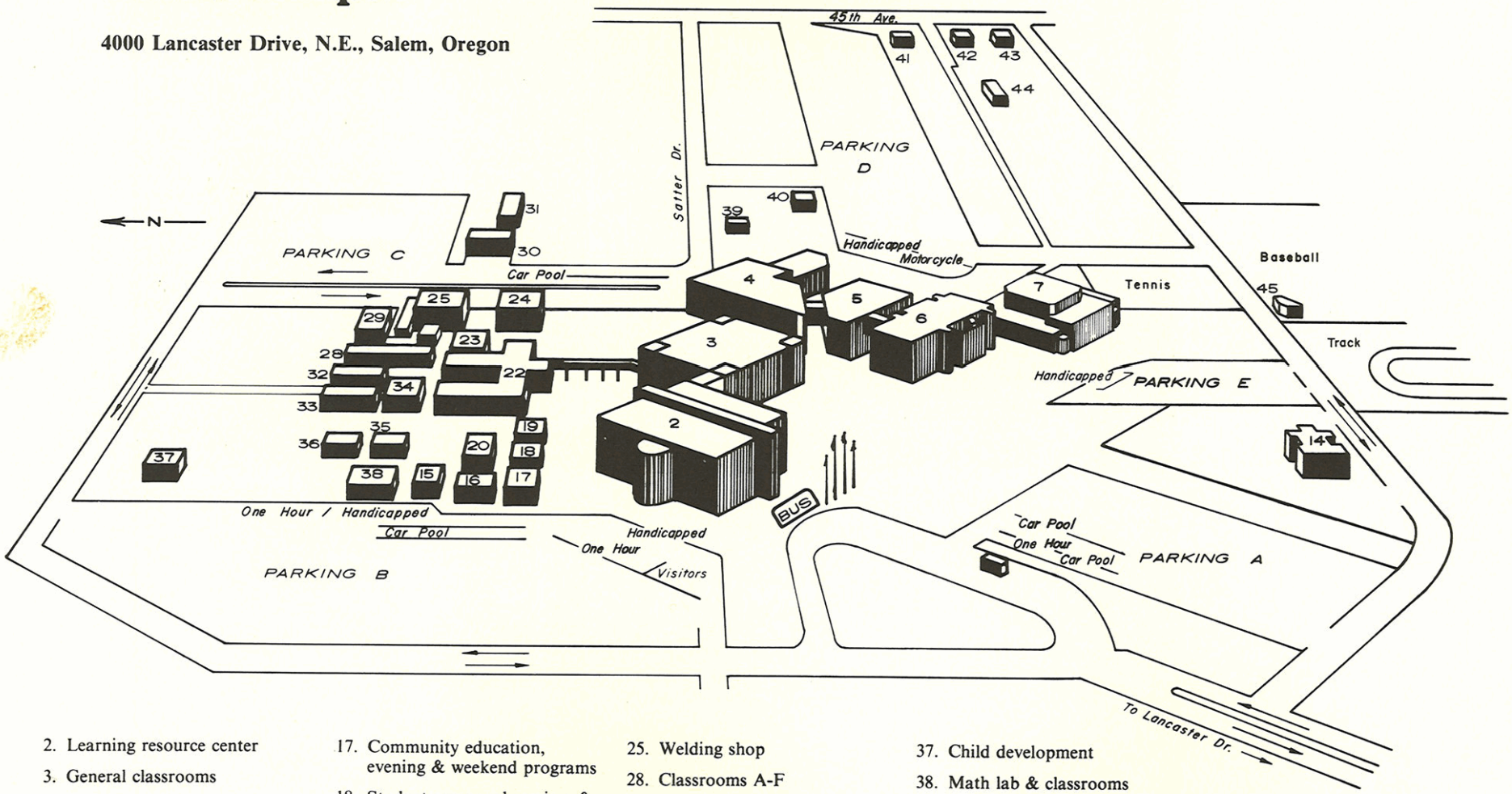


The college district is the college campus. In addition to the Salem campus, Chemeketa has centers in four towns and offers classes in many communities in the district.

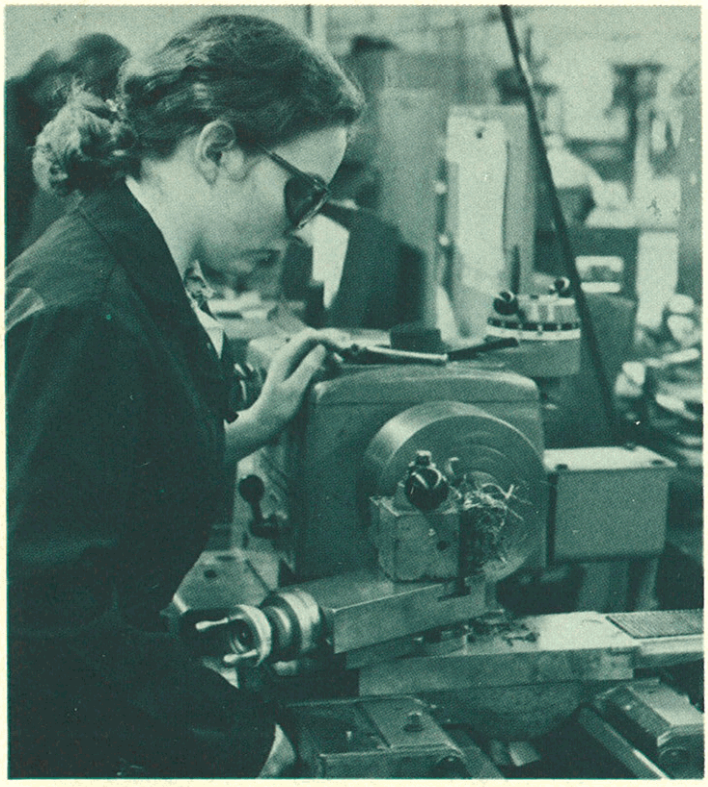
Salem campus

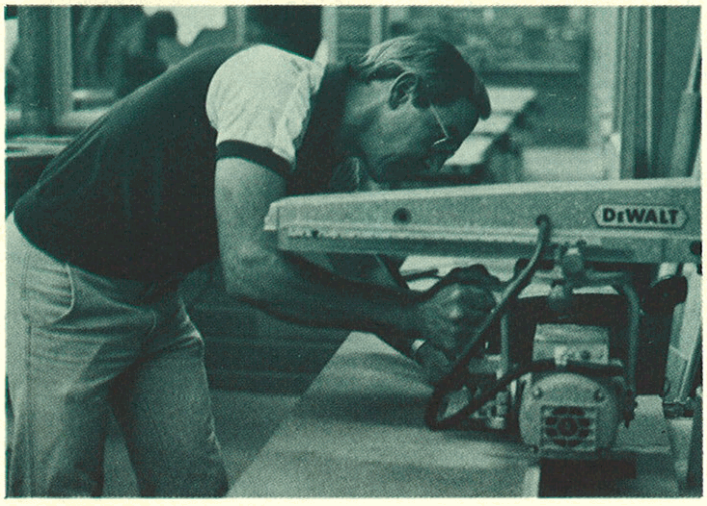
4000 Lancaster Drive, N.E., Salem, Oregon

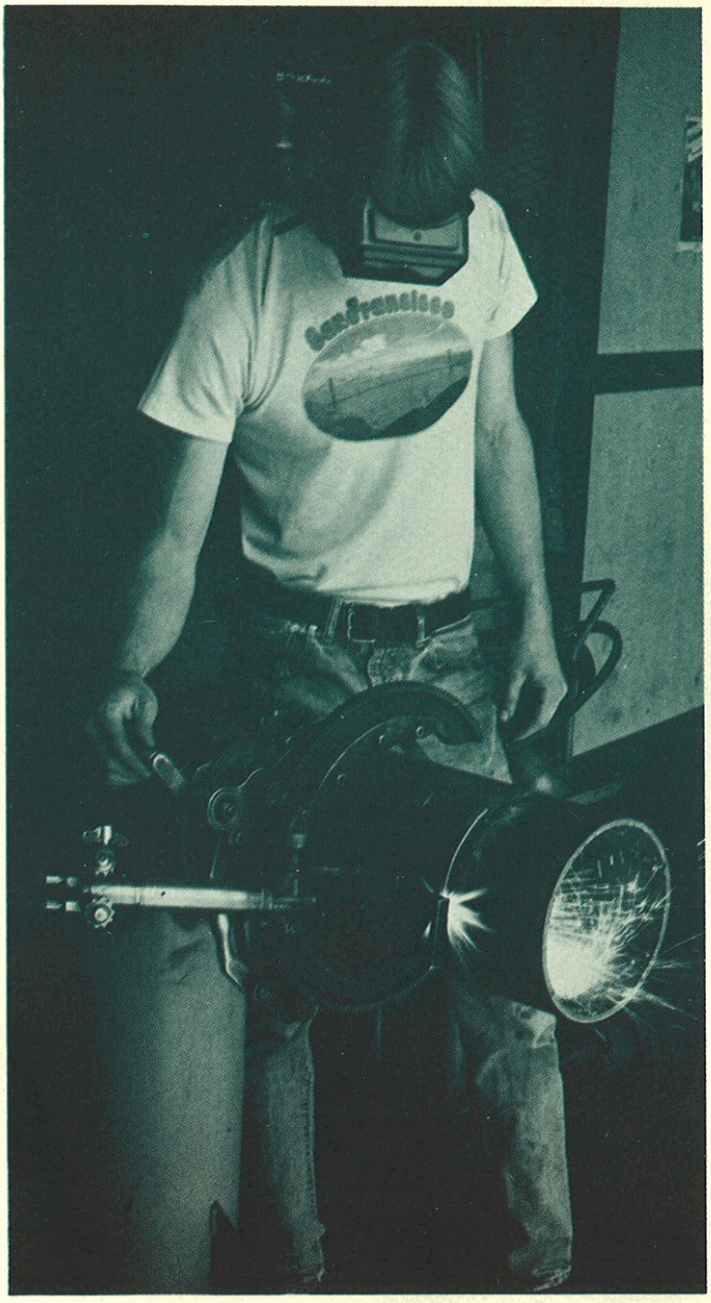


2. Learning resource center
3. General classrooms
4. Wilmeth trade & industry
5. Technical skills
6. Science & health
7. Physical education
14. Fire training
15. Conference/seminar room
16. Staff offices
17. Community education, evening & weekend programs
18. Student personnel services & administrative services
19. Student union
20. College bookstore
22. Administration, classrooms
23. Staff offices
24. Machine shop
25. Welding shop
28. Classrooms A-F
29. Offices, apprenticeship
30. & 31. Maintenance & repair
32. Classrooms A-D
33. Shipping & receiving
34. Food service
35. Staff offices
36. Staff offices
37. Child development
38. Math lab & classrooms
39. Staff offices
40. Staff offices, classrooms
41. Music annex
42. Ceramics and sculpture lab
43. Facilities planning
44. Pole building
45. Activity field

Chemeketa Community College
4000 Lancaster Drive N.E.
P.O. Box 14007
Salem, Oregon 97309







Price $2.00